3.2.6 LAND USE

3.2.6.1 INTRODUCTION

This section describes land uses of the region within eastern Oregon and western Idaho that would be affected by the proposed B2H Project. These resources are grouped into seven subsections: Land ownership, utility corridors, and parallel facilities; existing land use; timber management; fire management; zoning; military training; and specially designated areas. The regulatory framework, issues identified for analysis, methods, affected environment, and environmental consequences are described for each resource.

Issues raised by the public and agencies during B2H Project scoping and preparation of the EIS, related to potential impacts on land uses, are identified and evaluated by alternative route in this section.

To improve readability, some resources related to land use in the B2H Project area have been moved into separate sections in Chapter 3, including:

- Agriculture (Section 3.2.7)
- Recreation (Section 3.2.8)
- Transportation (Section 3.2.9)
- Lands with Wilderness Characteristics (Section 3.2.10)
- Potential Congressional Designations (Section 3.2.11)

3.2.6.2 REGULATORY FRAMEWORK

Various regulatory systems are in place throughout the B2H Project area that direct management to all levels of jurisdiction (federal, state, and local). The regulatory framework for this project is broken out by federal, state, and local.

FEDERAL

Land uses on federal lands in the analysis area are governed by various land-use plans, including three BLM RMPs, one U.S. Forest Service (USFS) Land and Resource Management Plan (LRMP), one Reclamation RMP, and one Department of Defense (U.S. Department of Navy [Navy]) plan. These plans establish management goals, objectives, and standards for the BLM, USFS, Reclamation, and Department of Defense management units. In areas where a transmission line is inconsistent with some portion of a plan, the transmission line may be prohibited, or an amendment to the plan may be needed to approve the B2H Project. Proposed plan amendments that may be necessary to approve the B2H Project are discussed in Section 3.4, Plan Amendments.

Public lands are managed for all citizens under various laws and plans. Therefore, everyone gets the benefit and the consequences of a project. Public lands provide natural resources that could be affected by the location of the transmission line (such as wildlife and habitat; visual, cultural, and historical resources). Both the USFS and BLM derive their authority to locate transmission lines on

public land under the FLPMA. This act explicitly permits the issuance of right-of-way under Title V. Decisions on issuing a right-of-way grant or a special-use authorization must also consider national and state land-use policies, environmental quality, economic efficiency, national security, safety, and good engineering and technological practices.

Other federal lands in the analysis area are governed by utility corridors and tribal rights and interests, which also are discussed in this section.

Table 3-221 identifies administrative units and applicable plans in the B2H Project area.

Table 3-221. Federal Resource Management Plans and U.S. Forest Service Land Resource Management Plan

Administrative Unit	Applicable Plan Name	Plan Year
BLM Idaho, Boise District, Owyhee Field Office	Owyhee RMP, and current amendments	1999
BLM Oregon, Vale District, Malheur Field Office	Southeastern Oregon RMP	2002
BLM Oregon, Vale District, Baker Field Office	Baker RMP[1]	1989
Wallowa-Whitman National Forest	Wallowa-Whitman National Forest LRMP	1990
Bureau of Reclamation	Owyhee Reservoir RMP	1994
U.S. Department of the Navy	Integrated Natural RMP Weapons Systems Training Facility Boardman	2012
Current Plan Amendments		
Applicable to Owyhee, Baker and Vale RMP	Approved Resource Management Plan Amendments/Record of Decision for Designation of Energy Corridors on Bureau of Land Management-Administered Lands in 11 Western States	2009
Applicable to Owyhee, Baker and Vale RMP	Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana, Nevada and Northeastern California, Oregon, Utah	2015
Applicable to Owyhee RMP	Omnibus Public Land Act 2009, Public Law 111-11 3/20/2009	2009

Table Notes:
[1]The Baker RMP is currently under revision.
BLM = Bureau of Land Management
RMP = resource management plan
LRMP = land and resource management plan

BLM Resource Management Plans

The BLM land-use planning process (43 CFR 1610) is subject to Section 202 of the FLPMA of 1976 and NEPA of 1973 regulations. The BLM RMPs provide land-use planning and management direction on a broad scale and guide actions on BLM-administered lands. Land-use plan decisions consist of desired outcomes (goals and objectives) and allowable uses and management actions. Land-use plans are used by managers to allocate resources and determine appropriate multiple uses for public lands,

develop a strategy to manage and protect resources, and set up systems to monitor and evaluate status of resources and the effectiveness of management practices over time.

Land-use plans and planning decisions are the basis for every on-the-ground action the BLM undertakes. Land-use plans ensure public lands are managed under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water-resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the nation's need for domestic sources of minerals, food, timber, and fiber from public lands by encouraging collaboration and public participation throughout the planning process (BLM 2015).

The B2H Project would cross BLM-administered lands managed under the Baker RMP in Oregon (BLM 1989), the Southeastern Oregon RMP in Oregon (BLM 2002), and Owyhee RMP in Idaho (BLM 1999).

Baker Resource Management Plan

The Baker RMP/ROD (BLM 1989) provides direction for managing public lands under the jurisdiction of the Vale District Office within the Baker Field Office. The RMP planning area encompasses approximately 429,754 acres bordered by the Snake River to the east, the Oregon– Washington state line and the Columbia River to the north, and by Gilliam, Wheeler, Grant, and Malheur counties to the west and south.

The lands managed under the Baker RMP include a forestland base of 88,603 acres; 29,330 acres are commercial forestland and 59,273 acres are woodlands. Grazing permits/leases are authorized for 55,437 animal unit months of livestock forage on 418,601 acres (374 allotments). Off-highway vehicle (OHV) designations are approximately 81,830 acres open, 319,853 acres limited, and 30,834 acres closed.[1] Nine areas totaling 38,988 acres are designated as ACECs; one area is designated as an outstanding natural area, and one as an RNA. The plan includes provisions to protect or enhance cultural resources, soil, water resources, botanical resources, visual resources, recreational opportunities, and other resources.

Fire Management

RMP management direction is to implement full suppression on fires that threaten high values at risk, such as private property, improvements, and areas with unique and/or special resource values. In addition, modified suppression will be implemented, through escaped fire analysis, on areas with lower values at risk and that are not covered by prescribed fire plans (BLM 1989). The RMP provides for a prescribed fire program, in consideration of current conditions and other resources.

[1]The OHV management designation numbers used for the Baker Field Office are approximate based on current BLM ownership lands, and have been updated based on the Sage-Grouse RMP Amendments. The data used for this analysis does not include lands withdrawn from BLM for use by other federal agencies.

Southeastern Oregon Resource Management Plan

The Southeastern Oregon RMP (BLM 2002) provides direction for managing public lands within the Malheur field office of the BLM Vale District. The Southeastern Oregon RMP planning area covers approximately 4.6 million acres of BLM-administered land mainly located in Malheur County, with some lands in Grant, Harney, and Baker counties. The planning area is bounded on the east by Idaho, on the south by Nevada, on the north by the Vale District's Baker Field Office, and on the west by the BLM Burns District's Three Rivers and Andrews Field Offices. Most of the public land is contiguous, with some scattered or isolated parcels.

The RMP includes provisions to improve or maintain upland conditions (including forest, woodland, and rangeland), riparian conditions, fish and wildlife habitat, botanical resources, and special status species.

The Southeastern Oregon RMP establishes guidance for managing a broad spectrum of land uses and allocations, including livestock grazing management (168 allotments), wild horse herd/management areas (17 areas), land-tenure adjustments, OHV designations (approximately 15,828 acres closed, 4,236,406 acres limited, and 359,542 acres open) 32 WSAs, 4 suitable National Wild and Scenic Rivers (WSR) (42.5 miles), 28 ACECs/RNAs (206,905 acres), caves, historic interpretive sites and districts, national trails, and other areas of national significance. Approximately 4,407 acres of forestland are available for commercial timber harvest, and 124,500 acres of western juniper are available for treatment to restore presettlement conditions. Approximately 5,877 acres of forested land are managed to preserve or create old-growth forest characteristics. The Southeastern Oregon RMP also designates new utility corridors ranging from 500 to 6,000 feet on each side of the centerline of existing facilities.

Fire Management

Management direction in the 2002 RMP is to provide appropriate management response on all wildfires. Response is to be based on preplanned fire criteria, resource objectives, and constraints as identified in Appendix M of the approved district fire management plan (FMP). As needed, the existing FMP should be modified to reflect changes in resource objectives and constraints (BLM 2002:37). The RMP provides for a prescribed fire program, and recognizes that fire is a critical natural process that can be used for the benefit of resources in appropriate conditions.

BLM Vale District Fire Management Plan

The purpose of the FMP is to describe how fire management strategies and tactics will protect values and provide tools to meet resource goals and objectives. The FMP tiers to decisions made in the Southeast Oregon (SEORMP), the Historic Baker Resource Management Plan, the Oregon Greater Sage-Grouse ARMPA, and the Wallowa-Whitman National Forest Land and Resource Management Plan. Development of FMPs is required by the *2009 Guidance for Implementation of Wildland Fire Management Policy*. This plan has been prepared on the foundational principle that firefighter and public safety is the first priority in every fire management activity.

This FMP describes fire management strategies and operations for the Bureau of Land Management's Vale District administered land and Wallowa-Whitman National Forest Service land protected by the Vale BLM. This FMP was developed using land-use plan direction, including goals and objectives

across all disciplines. All plans provide broad programmatic fire management direction. The intent of fire and fuels management actions is to reduce fire severity and frequency, as well as to restore resiliency by improving vegetative condition. These management actions are consistent with maintaining and improving wildlife habitat and rangeland health, as well as providing for firefighter and public safety.

Owyhee Resource Management Plan

The area managed under the Owyhee RMP (BLM 1999) is bounded on the west by Oregon, on the south by Nevada, on the north by the Snake River, and on the east by Castle Creek, Deep Creek, the Owyhee River, and Duck Valley Indian Reservation. Most of the public lands are contiguous, with only a few scattered or isolated parcels. Approximately 1,320,032 acres are managed by the BLM under the Owyhee RMP. The resource area includes the northern extent of the Owyhee Mountain Range and lies within what is often referred to as the Columbia Plateau, an elevated plateau with mountains separated by canyons draining to the Pacific Ocean via the Snake and Columbia rivers.

The Owyhee RMP establishes guidance for managing a broad spectrum of land uses and allocations, including livestock grazing management (153 allotments, 135,116 AUMs, and 1,605,155 acres), wild-horse management, land-tenure adjustments, OHV designations (258,904 acres closed, 1,000,791 acres limited, and 194 acres open), 6 designated WSRs (136 miles), wilderness areas (243,750 acres), and 13 ACECs (167,372 acres). The RMP contains resource objectives, land-use allocations, management actions, and direction needed to achieve program and multiple-use goals.

Public lands within the resource area are available for transportation and utility rights-of-way except where specifically prohibited by laws or regulations (such as wilderness areas) and in areas specifically identified as avoidance and exclusion areas to protect high-resource values.

Fire Management

RMP direction is to “Suppress wildfires by taking the appropriate management response using the range of acceptable acreage limits listed for each fire management zone within the resource area.” The appropriate response should consider resource values, firefighter safety, and costs, and whether allowing natural fires to burn would meet resource objectives (BLM 1999). The current FMP is reviewed periodically and may be revised in conformance with the RMP objectives.

Fire Management Plan, Southwestern Idaho Fire Planning Unit

The FMP (BLM 2011) incorporated the management direction from the Owyhee RMP. It does not provide additional direction. It does divide the area into fire management units, sets protocols for all and individual units, and identifies suppression priorities and fuel treatment priorities.

USFS Land and Resource Management Plans

A LRMP provides direction for all resource management activities on a national forest. An approved LRMP is the product of a process established by Congress in the National Forest Management Act 1976. A LRMP allocates land for timber production, oil and gas leasing, and other resource management activities. It designates areas for recreation and recommends the establishment of

wilderness, WSRs, and other special designations. The LRMP describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management. The management direction provided by the LRMP comprises the framework within which project planning and activities take place. USFS plans establish standards for resource management, either Forest-wide or for specific management areas.

Wallowa-Whitman National Forest Land and Resource Management Plan

The Wallowa-Whitman National Forest includes more than 2.3 million acres of land in northeastern Oregon. The Wallowa-Whitman National Forest LRMP (USFS 1990) guides natural resource management activities for the Wallowa-Whitman National Forest, those portions of the Nez Perce and Payette National Forests that are administered by the Wallowa-Whitman National Forest, and other lands within the Hells Canyon National Recreation Area. The LRMP was developed under a process established by the National Forest Management Act. The LRMP establishes Forest-wide multiple-use goals and objectives; Forest-wide standards and guidelines; and sets prescriptions, standards, and guidelines for each management area identified in the LRMP.

The Wallowa-Whitman National Forest includes two wilderness areas, plus portions of two others, for a total designated wilderness of 582,700 acres (approximately 25 percent of the Forest). There are 10 WSRs on the Wallowa-Whitman National Forest for 269 miles. Of the 2.3 million acres of this national forest, approximately 1.3 million acres (57.5 percent of the forest) are classified as suitable for livestock grazing. About 1.09 million acres (46 percent of the Wallowa-Whitman Forest) are classified as suitable for timber management. Approximately 173,000 acres on the Wallowa-Whitman National Forest comprise 131 specifically defined areas varying in size from 100 to 3,000 acres that are managed for old-growth forest conditions. The Wallowa-Whitman Forest includes approximately 9,300 miles of road (7,000 miles of which are open for use), 2,900 miles of winter and summer trails, and 5 landing strips. The LRMP states that when applications for rights-of-way for utilities are received, the Forest's first priority will be to utilize residual capacity in existing rights-of-way. Additional utility rights-of-way or corridors may be identified and approved subject to site-specific environmental analysis (USFS 1990).

Timber Management

Timber management includes the commercial and non-commercial harvest of forest wood products. Harvestable trees from conifer forests are generally referred to as timber. Besides lumber, timber products also include poles, posts, firewood, and Christmas trees. Harvest of these products is often included in timber or forest management programs. Additional discussion of forest vegetation communities is presented in Section 3.2.3.

All timber cleared from the right-of-way on National Forest System land would be cut and cleared in accordance with standards and guidelines in the Wallowa-Whitman LRMP. Merchantable timber cut on National Forest System land would be disposed of as described in 36 CFR 223.12 or as required by the USFS. Clearing on BLM-managed forested land would meet requirements of the applicable RMP. Forested areas outside the right-of-way that are disturbed by the project (such as by temporary roads

and fly yards) would be replanted according to federal (e.g., BLM and USFS) and state requirements (e.g., Oregon Reforestation Rules, OAR 629-610-0000 through 629-610-0090).

Fire Management

Wildfire control priorities give the highest priority for aggressive suppression action to wildfires that threaten life, private property, public safety, improvements, or investments.

Bureau of Reclamation Resource Management Plans

Reclamation's RMPs provide a guide for creating a balance for resource development, recreation, and protection of natural and cultural resources for the lands and waters they manage.

Owyhee Reservoir Resource Management Plan

The Owyhee Reservoir RMP (Reclamation 1994) defines the resource management activities and guidelines needed to preserve and protect the existing land and water resources administered by Reclamation in the vicinity of the Owyhee Reservoir in Malheur County, Oregon. The RMP planning area includes approximately 26,190 acres of land and 12,740 acres of water surface (at full-pool elevation of 2,670 feet) comprising lands adjacent to the Owyhee Reservoir and parts of the Owyhee River system above and below the reservoir.

The RMP was developed in cooperation with several other agencies to balance desired public recreational uses of Reclamation lands and waters with the protection and improvement of existing resources specific to the Owyhee Reservoir study area. The Owyhee Reservoir provides irrigation water to 118,249 acres, which encompass 1,845 farm units and 8 towns in Malheur County, Oregon, and Owyhee County, Idaho. Land-use agreements have allowed for the establishment of the Owyhee State Park, the Lake Owyhee Resort, and the Pelican Point Airstrip along with other recreational activity sites within the RMP study area.

In addition, hydroelectric power generating facilities were developed in the 1980s on the Owyhee Project and Reclamation obtained Federal Energy Regulatory Commission licenses to construct and operate three power plants. These included a 5,000 kilowatt power plant at Owyhee Dam, using power outlet facilities installed during dam construction, an 8,000 kilowatt power plant at Tunnel No. 1, the major diversion works for the Owyhee Project, and a 2,000 kilowatt power plant on the Mitchell Butte Lateral. These powerplants were placed in operation between 1985 and 1993 (Reclamation 2013).

Fire Management

Reclamation is not directly responsible for fire suppression on the Owyhee Reservoir lands it administers. The RMP adopts fire-suppression policies established by the BLM for surrounding lands. The RMP also includes measures to limit fire risk.

The Vale Project

The Bureau of Reclamation Vale Project lands are located along the Malheur River and Willow Creek in east-central Oregon, surrounding the town of Vale. The project furnishes irrigation water to 35,000 acres of land. Features include Agency Valley Dam and Beulah Reservoir, Bully Creek Dam and

Reservoir, Harper Diversion Dam, Vale Main Canal, and a distribution and drainage system. This water supplies lands on the west side of the Malheur River from Lime to Vale, and along Willow Creek from Vale to the vicinity of Jamieson, Oregon. A siphon, 1.5 miles southwest of Little Valley, conveys water to the Little Valley Canal, on the east side of the Malheur River in the vicinity of Little Valley. Excess water from the Malheur River is diverted to Bully Creek Reservoir through the Vale Main Canal, and through the Bully Creek Feeder Canal that delivers water from the Main Canal, heading about 8 miles west of Vale, Oregon. Water stored in Bully Creek Reservoir is delivered by two laterals, one beginning at the outlet works of the dam and the other at Bully Creek Diversion Dam about a mile downstream from the reservoir.

Utility Corridors

There are two types of designated utility corridors in the B2H Project area: the DOE West-Wide Energy Corridor and individual federal agency RMP and LRMP corridors. Utility corridors are designated in LUP Amendments and the West-Wide Energy Corridor Records of Decision (BLM 2009; USFS 2009). These corridors are shown on MV-12, Land Status.

West-Wide Energy Corridors

In response to Section 368 of the Energy Policy Act of 2005, a Programmatic EIS has been developed for West-Wide Energy Corridor corridors in the 11 western states (Washington, Oregon, Idaho, Montana, Wyoming, California, Nevada, Utah, Colorado, Arizona, and New Mexico). The DOE and the BLM were the lead federal agencies, and the USFS and other agencies were cooperators for the designation of energy corridors on federal land in 11 western states (DOE/EIS-0386). A final Programmatic EIS was published on November 28, 2008 (DOE and BLM 2008). The West-Wide Energy Corridor Records of Decision for the BLM and USFS signed January 14, 2009, designate energy corridors and provide guidance, interagency operating procedures (IOPs), and mitigation measures to be used where linear facilities are proposed crossing public lands. Where the Programmatic EIS identifies new corridors for the managing agencies, the BLM and USFS RODs also amend relevant land management plans to include the new corridor. The designation of corridors does not require their use, nor does such designation exempt federal agencies from conducting an environmental review on each project. The BLM's West-Wide Energy Corridor ROD amended the Baker RMP, the Southeastern Oregon RMP, and the Owyhee RMP by designating two West-Wide Energy Corridors. West-Wide Energy Corridor 11-228 follows an existing 500-kV transmission line in Owyhee and Malheur counties. West-Wide Energy Corridor 250-251 generally parallels I-84 in Malheur and Baker counties.

A settlement agreement filed July 3, 2012, in the federal case *The Wilderness Society et al. v. United States Department of Interior et al.*, No. 3:09-cv-03048-JW (N.D. Cal.) provides for periodic review of West-Wide Energy Corridors identified in the final Programmatic EIS. The agreement also provides for periodic review and update of the IOPs contained in the ROD, so the IOPs identified for implementation in the Final Boardman to Hemingway EIS may differ from those presented in this Draft EIS. In addition, based on comments received on the Draft EIS, design features of the B2H Project for environmental

protection (which include the West-Wide Energy Corridor IOPs) and selective mitigation measures are included in the Final EIS (Section 2.5.1.1).

In addition, on May 20, 2016, the BLM, DOE, and USFS began a corridor study that will provide the foundation for additional study and review of the West-Wide Energy Corridors. The corridor study evaluates whether the West-Wide Energy Corridors are achieving their purpose to promote environmentally responsible corridor-siting decisions and reducing the proliferation of dispersed rights-of-way crossing federal lands. The corridor study provides baseline data and identifies considerations and areas which should be explored in more detail during the future required Regional Periodic Reviews conducted by BLM and USFS.

Resource Management Plan and Land and Resource Management Plan Designated Corridors

Some federal and county land-use plans require the use of existing rights-of-way or designated utility corridors for new utility projects. Section 503 (43 U.S.C. 1763) of the FLPMA encourages the BLM and USFS to use existing corridors to the extent practical to minimize adverse environmental impacts and the proliferation of separate rights-of-way. Per county codes and/or ordinances, Malheur, Umatilla, and Union counties encourage the development of transmission lines on existing transmission line rights-of-way wherever possible.

Department of Defense Management Plans

Naval Weapons System Training Facility Boardman Integrated Natural Resources Management Plan and Final EIS

The U.S. Department of Defense (DoD), with the assistance of the U.S. Fish and Wildlife Service (FWS) and the states, is responsible under the Sikes Act (16 U.S.C. 670a-670f, as amended) for carrying out programs and implementing management strategies to conserve and protect biological resources on its lands. Because military lands and waters often are protected from human access and impact, they contain some of our nation's most significant remaining large tracts of land with valuable natural resources.

Congress established the Sikes Act in 1960 to manage these lands for wildlife conservation and human access. The Sikes Act was amended in 1997 to develop and implement mutually agreed upon Integrated Natural Resource Management Plans (INRMP) through voluntary cooperative agreements between the DoD installation, USFWS, and the respective state fish and wildlife agencies. INRMPs are planning documents that allow DoD installations to implement landscape-level management of their natural resources while coordinating with various stakeholders. They are extremely important management tools that ensure military operations and natural resources conservation are integrated and consistent with stewardship and legal requirements.

The Navy adopted the NWSTF Boardman INRMP in January 2012 (Navy 2012). This plan is used to guide the installation commander (Command of Naval Air Station Whidbey Island) in the management of natural resources to support the installation mission, while protecting and enhancing installation resources for multiple use. In addition, as a separate effort, the ROD for the NWSTF Boardman was published in April 2016. The Proposed Action for the NWSTF Boardman EIS would result in increases

in training activities and development of necessary ranges, range facilities, and range. The Proposed Action does not include changes to or expansion of the existing NWSTF Boardman boundaries.

In addition, the Navy has provided information to the Applicant indicating that similar conditions as those identified in the existing use agreement in place for the Bonneville Power Administration (BPA) 69-kV line would apply to the B2H Project as they are both aboveground utilities along a similar easement corridor (M. Vaughn, Idaho Power Company, email communication with author, 2016).

Tribal Rights and Interests

The federal government has a unique and distinctive relationship with tribes as set forth in the Constitution of the U.S., treaties, statutes, Executive Orders, judicial decisions, and agreements. The U.S. Government has a trust responsibility to federally recognized Native American tribes that covers lands, resources, money, or other assets held by the federal government in trust and the ability of those tribes to exercise their tribal rights. The U.S. recognizes Native American tribes as sovereign nations.

Tribal concerns regarding land use are focused on the tribe's ability to continue traditional land uses under treaty rights and inherent rights to lands within the B2H Project area. The tribes maintain active interests in the planning area and use public lands to gather plants or other native materials.

The Native American tribes present within the B2H Project study area include Burns Paiute Tribe, Confederated Tribes of the Colville Reservation, CTUIR, Confederated Tribes of the Warm Springs Indian Reservation of Oregon, Fort McDermitt Paiute and Shoshone Tribe, Joseph Band of the Nez Perce, Nez Perce Tribe, Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, Yakama Nation.

The tribes consider portions of the B2H Project area to be part of their aboriginal territory, subsistence range, traditional use area, or zone of influence. Exercise of treaty rights could include hunting, fishing, gathering, pasture rights, water rights, and mineral rights on federal lands outside of the boundaries of their reservations. Refer to Section 3.2.14 for further detail regarding Native American concerns.

In addition to BLM consultation with Native American sovereign tribal governments described in Section 3.3.4.14 Native American Concerns; analysis was conducted in accordance with Executive Order No. 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994. Refer to Section 3.2.17 for further detail.

Indian Reservations

The Umatilla Indian Reservation is located within the B2H Project area in Umatilla County, Oregon. Land use on the Umatilla Indian Reservation is governed by the Land Development Code. However, since the B2H Project does not cross any Native American reservations the Land Development Code would not govern the placement of the transmission lines (refer to Section 3.2.14).

STATE

Oregon Statewide Local Planning Goals

ORS Chapter 197 directs Oregon counties to develop county comprehensive plans consistent with the applicable statewide planning goals developed by the Land Conservation and Development Commission. Each comprehensive plan is accompanied by a set of implementing measures. The two most common measures are zoning and land-division ordinances. Every city and county in Oregon has adopted such land-use controls. In addition, a system of statewide zoning was developed to help guide local counties and municipalities in developing land-use plans and ordinances. Nineteen statewide planning goals were defined, including three that are particularly relevant to transmission line location and are applicable in all five Oregon counties in which the B2H Project would be located. The applicable statewide planning goals and the substantive criteria of county plans and ordinances are discussed below.

Goal 3—Agricultural Lands

Goal 3 is designed to preserve and maintain agricultural lands for farm use. To comply with this goal, an applicant for a site certificate from EFSC must demonstrate compliance with applicable statutes (ORS 215.283 and 215.275) and Land Conservation and Development Commission administrative rules (OAR Chapter 660, Division 33) relating to exclusive farm use (EFU) lands. ORS 215.283 authorizes certain non-farm uses, including transmission lines, on EFU land provided the facilities are necessary for public service. Under ORS 215.275(1), a utility facility is “necessary for public service” if it must be sited in an EFU zone to provide service. To demonstrate necessity, an applicant must show that reasonable alternatives have been considered and that the facility must be sited on EFU-zoned land due to one or more of the following factors:

- Technical and engineering feasibility
- The proposed facility is locationally dependent; a utility facility is locationally dependent if it must cross land in one or more areas zoned for EFU to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands.
- Lack of available urban and non-resource lands
- Availability of existing rights-of-way
- Public health and safety
- Other requirements of state or federal agencies

Goal 4—Forested Lands

The purpose of Goal 4 is to conserve forest lands. To comply with Goal 4, the Applicant must demonstrate compliance with Land Conservation and Development Commissions applicable rules set forth in OAR Chapter 660, Division 6. For transmission lines to be sited on forest lands, the use must meet the following requirements under the rules:

- The proposed use must not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands.

- The proposed use must not significantly increase fire hazard or significantly increase fire-suppression costs or significantly increase risks to fire-suppression personnel.
- The proposed use has the least impact on nearby or adjoining forest or agricultural lands.
- The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized.
- The amount of forest lands used to site access roads, service corridors, and structures is minimized.
- The risks associated with wildfire are minimized.

Goal 5—Natural Resources, Scenic and Historic Areas, and Open Spaces

The purpose of Goal 5 is to protect natural resources and conserve scenic and historic areas and open spaces. The guidelines identify the following as Goal 5 resources: riparian corridors, wetlands, wildlife habitat, federal WSRs, state scenic waterways, groundwater resources, approved Oregon recreational trails, natural areas, wilderness areas, mineral and aggregate resources, energy sources, and cultural areas. Generally, local governing bodies must inventory Goal 5 resources and provide for the preservation of natural areas consistent with the inventory of those resources that are historically, ecologically or scientifically unique, outstanding or important.

Oregon Energy Facility Siting Council

In Oregon, the EFSC, in coordination with the Oregon Department of Energy (ODOE), oversees the siting and construction of large energy facilities to ensure these facilities are located, built and operated in ways that protect the environment and public health and safety and ensure system reliability. EFSC is the primary state agency that approves or denies the application to build this facility in Oregon. It is a governor appointed citizen council that regulates energy facilities in Oregon. EFSC does not apply to private lands nor does it change federal agency authorization. The B2H Project must meet the EFSC's siting standards, and the EFSC must issue a site certificate for the facility before construction can occur. On issuance, the site certificate requires state agencies and local governments to issue all permits, licenses, and certificates for the construction and operations of the facility set forth for in the site certificate (ORS 469.401).

Before issuing a site certificate, EFSC must conclude that the project is consistent with Oregon's land-use policies as set forth in the statewide planning goals. The EFSC land-use standards are set forth in ORS 469.504 and OAR 345-022-0030. ORS 469.504 authorizes an applicant for a site certificate to choose between two methods for demonstrating compliance with the statewide planning goals: (1) by receiving approval for the facility from each affected local government (Path A) or (2) by electing to have EFSC make the necessary findings that the proposed facility will comply with the statewide planning goals (Path B). For the B2H Project, the Applicant has elected to demonstrate compliance with statewide planning goals by way of the second option or Path B.

Under Path B, EFSC must determine that the project complies with the following:

- Applicable Land Conservation and Development Commission rules and land-use statutes (including statewide planning goals)
- Any applicable, substantive criteria from each county's local comprehensive plan and land-use regulations.

In the EFSC process Path B review, the EFSC considers county and city land use and zoning requirements when evaluating a site certificate application. When the EFSC issues a site certificate, the affected counties and cities must issue permits and other approvals addressed in the site certificate, where required, subject only to the site certificate conditions. The EFSC relies on the affected local jurisdiction(s) to provide applicable substantive criteria and required permits based on the jurisdictions unique land-use ordinance requirements.

Oregon Department of State Lands

The Oregon Department of State Lands (Oregon DSL) manages nearly 771,000 acres of surface land and 800,000 acres of off-shore land, estuarine tidelands, and submerged and submersible lands of the navigable waterway system. It is responsible for administering the state's removal-fill law, which protects Oregon's waterways and wetlands from uncontrolled alteration. Its other responsibilities include leasing state-owned mineral rights for the exploration and production of oil, gas, hard minerals and geothermal energy; providing opportunities to lease or buy state land; maintaining historical records related to early land transactions, including deeds, leases, and plats; performing administrative functions for the Natural Heritage Advisory Council; managing oversight and the performance of administrative services for the South Slough National Estuarine Reserve; being the lead state agency for the protection and maintenance of Oregon's unique wetlands resources; and managing coastal resources seaward of the mean high-tide line. Proceeds from the management of lands and waterways and other activities of Oregon DSL become part of the Common School Fund principal.

Idaho Local Land-Use Planning Act

Idaho Code Title 67-65, Local Land Use Planning, requires all city and county governments to establish local planning procedures and land-use regulations. The Local Land Use Planning Act of 1975 requires every city and county to enact a comprehensive plan, zoning ordinance, subdivision ordinance, area of city impact ordinances, and regulations for confined animal feeding operations (counties only). The act also grants cities and counties the authority to adopt certain laws and policies at the discretion of the governing board. Local authorities have siting authority for transmission lines and substations (refer to the discussion for Owyhee County below).

Idaho Department of Lands

Idaho owns and manages more than 2 million acres of endowment lands that provide financial support to public schools and other institutions. The Idaho Department of Lands manages these trust lands under the governance of the Idaho Board of Land Commissioners, which consists of Idaho's governor, secretary of state, attorney general, superintendent of public instruction, and state controller. The land

board acts in the capacity of trustees on behalf of the beneficiary schools and other institutions to manage the state's endowment lands.

All endowment assets of Idaho, per the state constitution, must be managed in such manner as will secure the maximum long-term financial return to the trust beneficiaries. The State Trust Lands Asset Management Plan (Idaho State Board of Land Commissioners 2011) identifies utility and roadway rights-of-way as valid uses of endowment lands. However, any lease would need to be negotiated with the land board.

LOCAL

Through a public planning process, each county and city's comprehensive plan identified the goals and policies that guide the development of desired future conditions within its border. Each county within the B2H Project study area also adopted a development code that divides the land within its border into zones. Development codes (or zoning ordinances) regulate land-use activities, permitted uses of land, and intensity of development within each zone. Zoning ordinances are the county or city's primary regulatory mechanism to ensure that the future desired land-use conditions identified in the comprehensive plans are achieved. Zoning ordinances are used to guide and organize development within each county within the B2H Project area by separating incompatible land uses, directing development away from environmentally sensitive areas, and ensuring that development is adequately served by public infrastructure such as roads and utilities. The City of Boardman is the only cooperating city for the B2H Project.

Oregon Counties

Each Oregon County, in the B2H Project area, has a comprehensive plan and development code that governs land-use development. These include the following:

- Morrow County Comprehensive Plan (Morrow County 1986) and Morrow County Zoning Ordinance (Morrow County 2001)
- Umatilla County Comprehensive Plan (Umatilla County 1983a) and Umatilla County Development Code (Umatilla County 1983b)
- Union County Land Use Plan (Union County 1979) and Union County Zoning, Partition and Subdivision Ordinance (Union County 1983)
- Baker County Zoning and Subdivision Ordinance Number 83-3 (Baker County 1984) and Land Use Ordinances of 1983 (Baker County 2014)
- Malheur County Comprehensive Plan (Malheur County 1982) and Malheur County Zoning Ordinance (Malheur County 2008)

Where a project is not under the jurisdiction of EFSC or the project applicant elects to seek local approval outside of the EFSC process (Path A), each Oregon County would consider issuing a conditional-use permit after independent permit review. As described previously, the Applicant has elected to follow Path B, which means that issuance of a site certificate would bind state and local jurisdictions to the EFSC's action and would require them to issue permits, licenses, and certificates for

the construction and operations of the facility. To issue a site certificate, EFSC must conclude that the proposed facility will comply with the substantive criteria identified in the county plans and ordinances.

In response to the EFSC Notice of Intent 2008 and 2010 comment processes, all five Oregon counties identified substantive criteria they consider applicable to the proposed B2H Project (Appendix K):

- Morrow County letters to the ODOE dated December 8, 2008 and August 18, 2010
- Umatilla County letter to the ODOE dated September 15, 2010
- Union County letters to the ODOE dated October, 2008 and January 2011
- Baker County letters to the ODOE dated December 5, 2008 and September 22, 2010
- Malheur County letters to the ODOE dated December 2, 2008 and December 8, 2010

While each county has specific concerns, common general plan themes include, but are not limited to, the following:

- Protection of EFU, Exclusive Range Use (ERU), grazing/farmland, and timber-grazing zones
- Establishment of setbacks from streams
- Protection of Goal 5 resources (natural resources, scenic and historic areas, and open spaces)
- Prevention of flood damage by implementing flood hazard zones
- Avoiding clearing in riparian areas
- Development compatibility with historic, archaeological, and cultural sites
- Protection of sensitive habitat wetland and big-game habitat
- Prevention of the spread of noxious weeds

The following counties are considered a Cooperator in the State of Oregon; Baker County, Malheur County, Umatilla County and Union County. The following counties are considered a Cooperator in the State of Idaho; Morrow County and Payette County,

Owyhee County, Idaho

The *Owyhee County Comprehensive Plan* (Owyhee County 2010a) was adopted in 2002 and amended in 2010. The county plan has an objective to encourage public utilities and utility corridors to be located on public lands. An energy goal in the Owyhee County Comprehensive Plan is to protect the property rights of Owyhee County citizens and not allow the infiltration of public utilities and energy corridors to negatively affect those citizens or their private property. Owyhee County adopted an Energy Plan (Owyhee County 2007) in 2007. The Energy Plan includes a policy to encourage the improvement of the power delivery system.

The *Owyhee County Zoning Ordinance* (Owyhee County 2010b) was adopted in 2010. Power generation, production and/or distribution facilities are permitted as conditional uses in the Agriculture (A), Multi-use (M), Residential (R), Commercial (C), and Industrial (I) zones.

3.2.6.3 Issues Identified for Analysis

Issues related to land use were raised by the public, Native American tribes and federal and state agencies during scoping. The list below is a summary of the issues identified during scoping that are analyzed in this section of the EIS, as well as issues that must be considered as required by applicable laws or regulations. A list of public comments received on the Draft EIS and responses can be found in Appendix K.

Land Ownership

- What kinds of effects would occur on Native American reservations? (Section 3.3.4.14)
- What forest plan and RMP amendments would be needed? (Section 3.4)
- Could the transmission line be constructed on public lands rather than private lands?

Utility Corridors

- Will the project be located in existing utility corridors?

Existing Land Use

- How much land area will be required for the project?
- Will increased access to the B2H Project area result in damage to land and resources?

Timber Management

- Would the B2H Project affect timber management and harvest?

Fire Management

- How would construction of the B2H Project and post construction reclamation affect fire risk?
- How would the B2H Project affect fire-suppression efforts, including aviation?

Zoning

- Is the Project consistent with local and county land-use plans?

Military Training

Issues related to military training were not identified during scoping. However, through coordination with NWSTF Boardman, the following issues were identified related to military training in NWSTF Boardman Special-use Airspace:

- Would the B2H Project cause conflict with three-dimensional training areas such as Weapons Danger Zone and Surface Danger Zones?
- Would ground activity associated with construction, operations, and maintenance of the B2H Project affect lands with Unexploded Ordinance?
- Would the B2H Project affect Washington Ground Squirrel Habitat located on NWSTF Boardman property? (Section 3.2.4)
- Would the B2H Project affect RNAs located on NWSTF Boardman property?
- Would the B2H Project affect overhead and underground utilities located adjacent to NWSTF Boardman and Bombing Range Road?

- Would the B2H Project affect historical, cultural, and archaeological resources located on NWSTF Boardman? (Section 3.3.4.13)
- Would the B2H Project affect Native American Resources? (Section 3.3.4.14)

Specially Designated Areas

- What effects will the B2H Project have on conservation and special-designation lands like areas of critical environmental concern?

3.2.6.4 METHODS

The general study methods used to analyze the impacts of the B2H Project in this EIS are described in Section 3.1.3 and 2.5.1. This section discusses how the study methods are applied to assess the impacts of the B2H Project on major land-use categories.

DATA SOURCES

Land ownership, utility corridors, and parallel facilities were inventoried using readily available GIS data.

Existing land uses were inventoried using a combination of readily available GIS data for existing land use types, including the U.S. Geological Survey (USGS) National GAP Analysis Program Land Cover Data Set. The USGS GAP Land Cover Data Set includes detailed vegetation and land-use patterns for the continental U.S., and was used for the general identification of existing land uses. For a description of GAP land/vegetation classifications refer to Section 3.2.3.5. The GAP data was further complemented by other existing GIS data sets that included roads, linear utilities such as transmission lines, substations, power plants, and pipelines as well as a dataset of existing structures compiled by reviewing and interpreting aerial imagery.

All city and county comprehensive land-use plans and zoning ordinances occurring within the 1-mile-wide alternative route study corridors were inventoried and reviewed, as available. A generalized zoning data layer was created by interpreting the zoning or district designations within the city or county comprehensive plans and ordinances, and grouping them into similar categories. All areas with zoning designations that were similar were grouped, which resulted in the following general zoning classifications:

- **Agriculture**. Lands classified as agricultural include a diversity of farming land uses and activities that include dryland farmland, irrigated farmland, agriculture stockyards, out structures, fallow farmland, farm complexes, horse farms, and rangeland. Farming activities include the production of cultivated crops (e.g., wheat, barley, oats, corn, canola), field and truck crops (e.g., potatoes, green peas, asparagus, melons), hay and silage feeds (e.g., alfalfa, corn, pea vines), fruit products (e.g., apples, cherries, prunes, peaches, apricots, grapes), and an extensive livestock industry raising cattle and calves, hogs and pigs, sheep and lambs, and chickens and turkeys.

- **Industrial**. Lands classified as industrial are areas suitable and desirable for industrial activities such as warehouse businesses, manufacturing companies, major food processing facilities, forestry and wood products plants.
- **Grazing**. Lands classified as grazing are areas identified as suitable for ranching and domestic livestock grazing for commercial purposes.
- **Timber/Grazing**. Lands classified as timber/grazing are areas of private commercial forest lands; other forested lands needed for their watershed or wildlife and fisheries habitat value and recreation; lands whose sensitive nature requires the maintenance of vegetative cover; and other forested lands which provide visual and wind breaks, wildlife and fisheries habitat, livestock habitat, scenic corridors, and recreational use.
- **Commercial**. Lands classified as commercial are areas where goods and services are provided to the public. Commercial areas provide frequently needed goods and services, such as retail and grocery stores, banks, gas stations, and restaurants to local communities.
- **Public/Quasi-Public**. Lands classified as public/quasi-public areas are community centers, places of worship such as churches, and public parks and open spaces.
- **Residential**. Lands designated as residential are areas that vary in degree of housing density from low to high, and are typically designated as either single-family residential, multi-family residential (apartments), or rural residential.
- **Federal**. Federal lands throughout the B2H Project study area are managed by the BLM, USFS, Reclamation, or DoD, and guided by agency specific Land and Resource Management Plans.

Timber management, fire management, military training in NWSTF Boardman Special-use Airspace, and specially designated areas were inventoried using readily available GIS data.

These readily available GIS data were obtained from various materials and information provided by federal, state, and local agencies, including the following:

- BLM and USFS land and resource management plans
- Fire history and natural resource data hosted by the USGS
- City and county land-use plans
- Aerial photography (for structures)

For graphic representation of the locations of these land uses, refer to MV-12 through MV-15.

Analysis Area

All land-use categories were inventoried within a 1-mile-wide study corridor (i.e., 0.5 mile on either side of the reference centerline of the alternatives and route variations to identify land uses that could be affected both directly and indirectly by B2H Project construction, operation, and maintenance.

Impact Assessment and Mitigation Planning

Criteria for Assessing Level of Impacts

Criteria were developed to assess the level of potential effects on land uses associated with implementation of the B2H Project (Table 3-222). The assessment of impacts on each category of existing land use, zoning, timber management, fire management, military training in NWSTF Boardman Special-use Airspace, other military special-use airspace, and specially designated areas was based on the relationship between the level of a potential effect on each use to estimated disturbance associated with B2H Project construction, operation, and maintenance.

Table 3-222. Criteria for Assessing Level of Impacts on Land-Use Resources

Level of Impacts	Description
High	• Areas where the B2H Project would conflict physically or create a direct long-term conflict with existing land uses, such as residential, commercial, industrial, or natural resource development (i.e., displacement of homes, businesses, or direct impacts on mineral extraction and timber harvest operations)
Moderate	• Areas where the Project would create a direct (short-term) or indirect (short- or long-term) conflict with existing land uses, such as residential, commercial, industrial, or natural resource development (i.e., displacement of homes, businesses, or direct impacts on mineral extraction and timber harvest operations)
Low	• Areas where land use is compatible with a transmission line such as industrial areas, linear features or existing or proposed utilities, vacant/undeveloped land, etc. • Areas where the project is in a designated (federal or local) utility corridor

The methodology for assessing the potential impacts on land uses associated with implementing the B2H Project generally includes:

- Identifying the types of potential effects that could result from construction, operation, and maintenance of the proposed transmission line and associated facilities
- Classifying the relative level of impacts on land uses to potential environmental effects
- Developing criteria for assessing the level of a potential effect on land uses
- Assessing the initial impacts on the land use
- Identifying the appropriate selective mitigation measures for minimizing potential adverse effects
- Determining specific areas where selective mitigation should be applied
- Disclosing potential residual impacts on land uses

Land Ownership, Utility Corridors, and Parallel Facilities

There are no criteria for assessing level of impacts on land ownership, utility corridors, or parallel facilities. In the results sections the miles crossed of each of these is disclosed.

Existing Land Use

Impact levels high, moderate and low were established to determine the level of impact the B2H Project would have on existing land uses. Significant impacts related to existing land use would be the result of high impacts that cannot be effectively mitigated.

Zoning

The impact analysis for zoning is different than other resources because the high, moderate, and low criteria were not used to quantitatively assess level of impacts as was done for most other resources. Instead the number of miles the B2H Project alternative routes cross a generalized zone is presented, followed by a qualitative discussion of the compatibility of the B2H Project with the future desired conditions identified in the comprehensive plan and potential conformance to local zoning codes. Each zone is designated and managed for a specific use, making impacts varied for each crossing. Significant impacts related to Zoning would be in areas where the B2H Project would physically conflict with any officially adopted policies or goals of the affected land-managing agency, and could not receive an amendment, variance or conditional-use permit for compliance.

Timber Management

The impact analysis for timber management is different than most other resources because the high, moderate, and low criteria were not used to quantitatively assess level of impacts as was done for most other resources. Instead, the number of miles in forested vegetation types crossed by each of the B2H Project alternative routes is presented, followed by a qualitative discussion of how this crossing may affect the resource. Potential impacts on timber management on BLM and private lands also are discussed qualitatively.

Fire Management

The impact analysis for fire management is different than most other resources because the high, moderate, and low criteria were not used to assess level of impacts as was done for most other resources. Because fire ignitions are unpredictable, and fire risk varies substantially with conditions at the time of ignition, a quantitative and site-specific discussion of potential impacts on fire management is not feasible. Differences in factors related to fire behavior, such as fire history and vegetation condition, are discussed for each of the B2H Project alternative routes as a part of the existing environment. Similarly, the effectiveness of mitigation cannot be feasibly considered as it relates to fire management, and an analysis of initial and residual impacts is not presented.

Military Training

The impact analysis for military training is different than other resources because the high, moderate, and low criteria were not used to assess levels of impact quantitatively as was done for most other resources. Instead, the number of miles the B2H Project alternative routes cross a certain military training use in NWSTF Boardman Special-use Airspace and other military special-use airspace is presented, followed by a qualitative discussion (using the criteria for assessing the level of impacts) of how this crossing may affect the management prescriptions that would result in the military's ability to manage these areas. The B2H Project description includes structure-design modifications to meet the requirements of the Navy and the FAA in response to NWSTF Boardman's request to limit transmission line structure heights to 100 feet or less, and to allow NWSTF Boardman to meet their training mission.

Specially Designated Areas

The impact analysis for specially designated areas is different than other resources because the high, moderate, and low criteria were not used to assess level of impacts quantitatively as was done for most other resources. Instead, the number of how many miles the B2H Project alternative routes cross a specially designated area is presented, followed by a qualitative discussion (using the high, moderate, and low criteria) of how this crossing may affect the management prescriptions and the relevant/important values or special characteristics that would result in an agency's ability to manage these specially designated areas. Each specially designated area is designated and managed for a specific resource, making impacts varied for each crossing. Refer to Sections 3.2.2, 3.2.4, and Map 3-1 for further detail regarding the Ladd Marsh Wildlife Area.

For specific information regarding the impacts on resources in a specially designated area crossed by an alternative route, refer to the applicable resource section (e.g., biological resources, cultural resources).

Effects Analysis

Assessment of Initial Impacts

To determine initial impacts that could result from implementation of the B2H Project, the level of a potential effect on a land use was assessed. The level was determined based on the compatibility of the land use with construction of a new transmission line. The initial impacts were assigned using the criteria presented in the Criteria for Assessing Level of Impacts section above.

Mitigation Planning and Effectiveness

In addition to the design features of the B2H Project for environmental protection (Table 2-7), selective mitigation measures (Table 2-13) also would be used to minimize adverse impacts on land uses.

There are no selective mitigation measures identified for land ownership, zoning; timber management; fire management; or specially designated areas because the decision for permitting in these areas is the responsibility and determination of each jurisdiction crossed by the alternative route.

Residual Impacts

Table 3-223 summarizes the initial impacts on existing land uses, the selective mitigation measures listed in Table 2-13 applied to mitigate potentially adverse effects on those resources, and the remaining residual impacts. Section 3.2.6.4 reports on the high or moderate residual impacts mileages that would occur after selective mitigation is applied. Selective Mitigation Measures 5, 7, and 8 (minimizing vegetation clearing for operational maintenance, structure-design modification, and spanning or avoiding sensitive features) could be effective to mitigate initial impacts on existing land uses. Table 3-223 reports the initial and residual impacts that will occur after considering the application of design features the Applicant has committed to as standard practice during construction, operation, and/or maintenance as applicable (Table 2-7). For example, it would be standard practice for the Applicant to repair fences, gates, and walls damaged during construction to the original condition as required by the landowner or land-managing agency (Design Feature 22, Table 2-7).

Table 3-223. Summary of Initial and Residual Impacts on Land-Use Resources			
Resource	**Initial Impacts**	**Selective Mitigation Measures Applied**	**Residual Impacts**
Structures			
Building (Non-residence)	High	8	Low
Campground	High	8	Moderate
Extraction-Mining	Moderate	8	Low
Other	High/Moderate	8	Moderate/low
Rest stop	High	8	Moderate
Residential	High	8	Moderate/Low
Cemetery	High	8	Low
School/Educational Facility	High	8	Moderate
Outstructures	High	8	Low
Communication Facility	High	7, 8	Low
Wind Mill	High	7, 8	Low
Flood Control Facility	High	7, 8	Low
Power substations (include TetraTech and other substations layers)	Low	7, 8	Low
Utilities			
Transmission Lines	Moderate	8	Low
Pipelines	Moderate	8	Low
Existing Land Uses (reGAP) GAP Land Cover			
Agriculture	High	8	Moderate
Brea Ground, Cliff Talus	Low	Not applicable	Low
Developed/Disturbed	High	8	High/Moderate
Forest/Woodland	High	5, 8	Moderate
Grassland	Low	Not applicable	Low
Not classified	Low	Not applicable	Low
Shrubland	Moderate	Not applicable	Low

As noted above, there are no initial or residual impacts or selective mitigation measures identified for land ownership, utility corridors, and parallel facilities; zoning; timber management; fire management; or specially designated areas because the decision for permitting in these areas is the responsibility and determination of each jurisdiction crossed by the alternative route.

Additional Analysis

Additional analysis for the land-use sections includes acreage report of land uses within the 1-mile-wide study corridor, counts of structures, and other analysis to support the impact discussion.

3.2.6.5 AFFECTED ENVIRONMENT

This section describes the affected environment of the alternatives in terms of land ownership, utility corridors, and parallel facilities; existing land use; timber management; fire management; zoning; military training in NWSTF Boardman Special-use Airspace and other military special-use airspace; and specially designated areas within the 1-mile-wide study corridor. Although the following inventory lists many resources in the 1-mile-wide study corridor, only those resources potentially crossed or paralleled by the B2H Project centerline or right-of-way are discussed and analyzed in the Environmental Consequences results section.

SEGMENT 1—MORROW-UMATILLA

Land Ownership, Utility Corridors, and Parallel Facilities

The study corridors in Segment 1 cross portions of three counties in Oregon and include a variety of ownership and management entities, including federal, state, and local land-managing agencies. In addition, there are four incorporated cities, as well as numerous unincorporated communities, in the study corridors. Table 3-224 presents the acreage of land ownership crossed by alternatives and route variations in Segment 1 (MV-12).

Table 3-224. Land Ownership in the Study Corridor for Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Land Ownership (acres)						
		Bureau of Land Management	Bureau of Reclamation	Tribal	Department of Defense	U.S. Forest	State	Private
Applicant's Proposed Action	91.9	42	1	70	3,757	2,793	614	51,526
Variation S1-B1	*6.4*	*42*	*0*	*0*	*0*	*2,793*	*7*	*1,745*
Variation S1-B2	*6.4*	*71*	*0*	*0*	*0*	*2,782*	*31*	*1,713*
East of Bombing Range Road	92.3	42	1	70	3,664	2,793	682	51,738
Applicant's Proposed Action – Southern Route	99.1	107	1	43	3,757	2,793	614	56,156
West of Bombing Range Road – Southern Route	95.6	125	1	43	3,757	2,793	614	54,238
Longhorn	88.2	134	0	70	–	2,793	7	53,420
Interstate 84	84.7	134	0	70	507	2,793	7	50,808
Variation S1-A1	*18.5*	*0*	*0*	*0*	*0*	*0*	*0*	*12,315*
Variation S1-A2	*18.5*	*0*	*0*	*0*	*0*	*0*	*0*	*12,349*
Interstate 84 – Southern Route	93.4	198	0	43	507	2,793	7	56,336

There is one type of designated utility corridor in the study corridors for Segment 1: a federal agency corridor designated in a land-use plan (refer to MV-12). With the exception of Interstate 84, Variations

S1-A1 and S1-A2, all other alternatives and route variations in Segment 1 are located in a utility corridor designated in the Wallowa-Whitman National Forest.

Existing linear energy-related facilities in the study corridors include transmission lines and pipelines. Table 3-225 provides a description of the major transmission line rights-of-way (69-kV and greater) in Segment 1. As noted, pipelines also are considered an existing linear facility, and are included in the analysis of linear facilities. However, the available data for this analysis are not refined enough to report by name, diameter, and owner. Refer to MV-12.

Table 3-225. Parallel Facilities in Segment 1—Morrow-Umatilla

Alternative Route	Length (miles)	Transmission Lines		
		Name	Voltage (kilovolts)	Owner
Applicant's Proposed Action	91.9	Boardman to Tap	69	Federal
		McNary to Boardman	230	Federal
		McNary to Santiam	230	Federal
		Roundup To La Grande	230	Federal
		McNary to Slatt	500	Federal
		Pilot Rock to Unknown	69	IOU
		Roundup To Pilot Rock	69	IOU
		Unknown	69	UECA
Variation S1-B1	*6.4*	*Roundup To La Grande*	*230*	*Federal*
Variation S1-B2	*6.4*	*Roundup To La Grande*	*230*	*Federal*
East of Bombing Range Road	92.3	Boardman to Tap	69	Federal
		McNary to Boardman	230	Federal
		McNary to Santiam	230	Federal
		Roundup To La Grande	230	Federal
		McNary to Slatt	500	Federal
		Pilot Rock to Unknown	69	IOU
		Roundup To Pilot Rock	69	IOU
		Unknown	69	UECA
Applicant's Proposed Action – Southern Route	99.1	Boardman to Tap	69	Federal
		McNary to Boardman	230	Federal
		McNary to Santiam	230	Federal
		Roundup To La Grande	230	Federal
		McNary to Slatt	500	Federal
		Unknown	69	UECA
West of Bombing Range Road – Southern Route	95.6	Boardman to Tap	69	Federal
		McNary to Boardman	230	Federal
		McNary to Santiam	230	Federal
		Roundup To La Grande	230	Federal
		McNary to Slatt	500	Federal
		Unknown	69	COLBEC
		Unknown	69	UECA

Table 3-225. Parallel Facilities in Segment 1—Morrow-Umatilla				
Alternative Route	Length (miles)	Transmission Lines		
		Name	Voltage (kilovolts)	Owner
Longhorn	88.2	McNary to Boardman	230	Federal
		McNary to Santiam	230	Federal
		Roundup To La Grande	230	Federal
		McNary to Slatt	500	Federal
		Pilot Rock to Unknown	69	IOU
		Roundup To Pilot Rock	69	IOU
		Unknown	69	UECA
Interstate 84	84.7	McNary to Boardman	230	Federal
		McNary To Roundup	230	Federal
		McNary to Santiam	230	Federal
		Roundup To La Grande	230	Federal
		McNary to Slatt	500	Federal
		Hinkle to Tap	69	IOU
		Pilot Rock to Unknown	69	IOU
		Roundup To Pilot Rock	69	IOU
		Unknown	69	UECA
		Unknown	69	UECA
		Unknown	69	UECA
Variation S1-A1	18.5	*McNary To Roundup*	*230*	*Federal*
Variation S1-A2	18.5	*McNary To Roundup*	*230*	*Federal*
Interstate 84 – Southern Route	93.4	McNary to Boardman	230	Federal
		McNary To Roundup	230	Federal
		McNary to Santiam	230	Federal
		Roundup To La Grande	230	Federal
		McNary to Slatt	500	Federal
		Hinkle to Tap	69	IOU
		Unknown	69	UECA
		Unknown	69	UECA
		Unknown	69	UECA

Table Notes:
COLBEC = Columbia Basin Electric Cooperative
IOU = Investor Owner Utility
UECA = Umatilla Electric Cooperative Association

Applicant's Proposed Action Alternative

The land ownership within the study corridor for the Applicant's Proposed Action Alternative is predominately private and DoD (NWSTF Boardman).

The land ownership within the study corridor for Variations S1-B1 and S1-B2 are predominately private and USFS (Wallowa-Whitman National Forest).

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The additional action would occur on private, state, and federal (DoD) land. As described in Chapter 2, Section 2.5.2.1, this design option involves partial removal of the existing BPA 69-kV line to allow the existing right-of-way for the BPA 69-kV line along the west side of Bombing Range Road to be repurposed for use by the B2H Project. The affected environment for this design option is similar to the affected environment described for the Applicant's Proposed Action Alternative.

Design Option 2

The additional action would occur on private, state, and federal (DoD) land. As described in Chapter 2, Section 2.5.2.1, this design option involves full removal of the existing BPA 69-kV line to allow the existing right-of-way for the BPA 69-kV line along the west side of Bombing Range Road to be partially repurposed for use by the B2H Project by removing all portions of the existing 69-kV line off of the NWSTF Boardman and constructing a new dual circuit 230-kV line on the east side of Bombing Range Road. The affected environment for this design option is similar to the affected environment described for the Applicant's Proposed Action Alternative.

Design Option 3

The additional action would occur on private, state, and federal (DoD) land. As described in Chapter 2, Section 2.5.2.1, this design option involves a new double-circuit 230-kV line, new 230- to 69-kV stepdown substation, and removal of all of the existing BPA 69-kV line from the NWSTF Boardman. This option assumes the new 230-kV line has already been built to support wind development and includes the option to stepdown power from the 230-kV line to feed the existing 69-kV line south of the NWSTF Boardman, allowing the 69-kV line to be removed entirely clearing the right-of-way for use by the B2H Project. The affected environment for this design option is similar to the affected environment described for the Applicant's Proposed Action Alternative.

East of Bombing Range Road Alternative

The land ownership within the study corridor for East of Bombing Range Road Alternative is similar to the Applicant's Proposed Action Alternative.

Applicant's Proposed Action – Southern Route Alternative

The land ownership within the study corridor for Applicant's Proposed Action – Southern Route Alternative is similar to the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The affected environment is the same as that discussed for Design Option 1 under the Applicant's Proposed Action Alternative.

Design Option 2

The affected environment is the same as that discussed for Design Option 2 under the Applicant's Proposed Action Alternative.

Design Option 3

The affected environment is the same as that discussed for Design Option 3 under the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The land ownership within the study corridor for West of Bombing Range Road – Southern Route Alternative is similar to the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The affected environment is the same as that discussed for Design Option 1 under the Applicant's Proposed Action Alternative.

Design Option 2

The affected environment is the same as that discussed for Design Option 2 under the Applicant's Proposed Action Alternative.

Design Option 3

The affected environment is the same as that discussed for Design Option 3 under the Applicant's Proposed Action Alternative.

Longhorn Alternative

The land ownership within the study corridor for Longhorn Alternative is predominately private and USFS.

Interstate 84 Alternative

The land ownership within the study corridor for Interstate 84 Alternative is predominately private and USFS with a small portion on BLM and DoD lands (Umatilla Ordnance Depot).

Variation S1-A1

The land ownership within the study corridor for both Variation S1-A1 and Variation S1-A2 is solely private.

Interstate 84 – Southern Route Alternative

The land ownership within the study corridor for Interstate 84 – Southern Route Alternative is similar to the Interstate 84 Alternative but includes more private lands.

Existing Land Use

Segment 1 begins at the Longhorn Substation in Morrow County and ends west of La Grande in Union County on the Wallowa-Whitman National Forest. Seven alternative routes and two areas of local variations were identified in Segment 1.

Table 3-226 presents acreages of existing land uses within the 1-mile-wide study corridor for the alternative routes and route variations in Segment 1.

Table 3-226. Existing Land Use within the 1-Mile-Wide Study Corridor for Segment 1—Morrow-Umatilla							
Alternative Route	Total Acres	Existing Land Use (acres)					
		Agriculture	Bare Ground, Cliff, Talus	Developed/Disturbed	Forest/ Woodland	Grassland	Shrubland
Applicant's Proposed Action	58,732	24,823	4	704	10,886	7,293	15,021
Variation S1-B1	*4,587*	*0*	*0*	*152*	*4,191*	*136*	*107*
Variation S1-B2	*4,597*	*1*	*0*	*220*	*4,069*	*149*	*158*
East of Bombing Range Road	58,926	25,175	4	708	10,886	7,482	14,672
Applicant's Proposed Action – Southern Route	63,400	22,166	18	688	11,409	11,014	18,105
West of Bombing Range Road – Southern Route	61,501	15,868	18	560	11,419	14,730	18,906
Longhorn	56,360	24,974	4	659	10,886	7,652	12,185
Interstate 84	53,503	26,194	17	2,315	10,902	5,644	8,431
Variation S1-A1	*12,306*	*9,174*	*12*	*879*	*8*	*498*	*1,736*
Variation S1-A2	*12,327*	*3,863*	*2*	*153*	*13*	*1,404*	*6,892*
Interstate 84 to Southern Route	59,067	24,015	31	2,300	11,425	9,560	11,736
Table Notes: This data is based on U.S. Geological Service GAP data.							

Table 3-227 presents existing structures within the 1-mile-wide study corridor of alternative routes and route variations in Segment 1.

Table 3-227. Existing Land Use Structures Crossed By or Adjacent to Alternative Routes and Route Variations in Segment 1—Morrow-Umatilla					
Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Applicant's Proposed Action	1 building (non-residence) 1 other 1 outstructure 1 power substation	5 outstructures 1 residential	2 buildings (non-residence) 1 other 12 outstructures 2 residential	3 buildings (non-residence) 3 communication facilities 4 other 64 outstructures 13 residential 1 windmill	31 buildings (non-residence) 7 other 85 outstructures 26 residential 2 windmills
Variation S1-B1	*0*	*1 residential*	*0*	*1 communication facility* *4 outstructures* *2 residential*	*1 outstructure* *2 residential*

Table 3-227. Existing Land Use Structures Crossed By or Adjacent to Alternative Routes and Route Variations in Segment 1—Morrow-Umatilla

Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Variation S1-B2	*0*	*0*	*1 outstructure*	*0*	*1 outstructure* *6 residential*
East of Bombing Range Road	1 building (non-residence) 1 other 1 outstructure 1 power substation	1 other 5 outstructures 1 residential	2 buildings (non-residence) 12 outstructures 2 residential	3 buildings (non-residence) 3 communication facilities 6 other 64 outstructures 13 residential 1 windmill	30 building (non-residence) 5 other 85 outstructures 26 residential 2 windmills
Applicant's Proposed Action to Southern Route	1 building (non-residence) 1 other 1 outstructure 1 power substation	5 outstructures 1 residential	1 building (non-residence) 1 other 15 outstructures 1 residential	3 buildings (non-residence) 3 communication facilities 4 other 43 outstructures 9 residential 1 windmill	24 buildings (non-residence) 7 other 82 outstructures 24 residential 2 windmills
West of Bombing Range Road to Southern Route	1 building (non-residence) 1 other 1 power substation	5 outstructures 1 residential	1 other 14 outstructures 1 residential	2 buildings (non-residence) 3 communication facilities 4 other 35 outstructures 6 residential	38 buildings (non-residence) 6 other 82 outstructures 36 residential
Longhorn	1 building (non-residence) 9 outstructures	1 building (non-residence) 2 other 5 outstructures 2 residential	10 buildings (non-residence) 18 outstructures 2 residential	6 buildings (non-residence) 3 communication facilities 7 other 60 outstructures 12 residential 1 windmill	19 buildings (non-residence) 9 other 111 outstructures 1 power substation 24 residential 2 windmills
I-84	8 buildings (Non-residence) 1 communication facility 15 outstructures 1 rest stop	5 buildings (non-residence) 17 outstructures 2 residential	44 buildings (non-residence) 1 campground 1 extraction-mining 1 other 59 outstructures 29 residential	38 buildings (non-residence) 5 communication facilities 6 other 98 outstructures 35 residential 1 rest stop	67 buildings (non-residence) 4 other 228 outstructures 1 power substation 72 residential

Table 3-227. Existing Land Use Structures Crossed By or Adjacent to Alternative Routes and Route Variations in Segment 1—Morrow-Umatilla					
Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Variation S1-A1	*5 buildings (non-residence)* *1 communication facility* *1 outstructure*	*1 building (non-residence)* *2 outstructures*	*9 buildings (non-residence)* *14 outstructures* *3 residential*	*8 buildings (non-residence)* *2 communication facilities* *3 other* *8 outstructures* *5 residential*	*9 buildings (non-residence)* *1 other* *32 oustructures* *12 residential*
Variation S1-A2	*1 building (non-residence)* *9 outstructures*	*1 outstructure* *2 residential*	*2 buildings (non-residence)* *9 outstructures* *2 residential*	*23 oustructures* *3 residential*	*13 buildings (non-residence)* *1 communication facility* *1 other* *59 outstructures* *15 residential*
I-84 to Southern Route	8 buildings (non-residence) 1 communication facility 15 outstructures 1 rest stop	5 buildings (non-residence) 17 outstructures 2 residential	43 buildings (non-residence) 1 campground 1 extraction-mining 1 other 62 outstructures 28 residential	38 buildings (non-residence) 5 communication facilities 6 other 77 outstructures 31 residential 1 rest stop	61 buildings (non-residence) 4 other 225 outstructures 1 power substation 70 residential

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative in Segment 1 traverses Morrow, Umatilla and Union counties in Oregon, and can generally be characterized as rural residential, agricultural, NWSTF Boardman Special-use Airspace and other military special-use airspace and vacant undeveloped areas. The 1-mile-wide study corridor for this alternative crosses approximately 24,823 acres (or 42 percent) of lands associated with agricultural production and approximately 704 acres (or 1 percent) of developed lands (Table 3-226). The remaining 33,200 acres (or 57 percent) in this study corridor are undeveloped forest, grass and shrublands. Approximately 266 structures occur within 0.5 mile of the reference centerline of this alternative, and 4 structures are crossed by the reference centerline. An additional 6 structures are located within the proposed right-of-way, including one residence (Table 3-227).

In Morrow County, the Applicant's Proposed Action Alternative in Segment 1 exits the proposed Longhorn Substation to the south, crossing the intersection of Interstate 84 and U.S. Highway 730, where the transmission line would then cross to the west side of Bombing Range Road. The alternative continues along the west side of Bombing Range Road for approximately 12 miles, within a 90-foot-wide use area, currently occupied by a 69-kV transmission line owned by BPA, on the NWSTF Boardman. NWSTF Boardman is managed under a Memorandum of Agreement, which is subject to a

series of avigation easements that place restrictions on the use of land within the easement. The areas of restricted airspace in the vicinity of NWSTF Boardman are shown in Map 3-2. The line then crosses Bombing Range Road and turns to the east, traversing areas of irrigated and dryland agriculture for approximately 9 miles before entering Umatilla County. There are two wind turbine energy generation developments that have recently been constructed in Morrow County near Link 1-41.

In Morrow County, the Applicant's Proposed Action Alternative crosses residential areas categorized as widely dispersed and low density. Diluted concentrations of residences are present where the Applicant's Proposed Action Alternative crosses major roads such as I-84 and State Highway 287 and the Butler Creek area. The Applicant's Proposed Action Alternative is colocated with commercial/ industrial uses associated with railroad transfer yards and other energy transmission facilities including substations and other transmission lines.

In Umatilla County, the Applicant's Proposed Action Alternative crosses widely dispersed and low-density rural residential areas. The community of Pilot Rock is approximately 2.5 miles south of where the Applicant's Proposed Action Alternative crosses U.S. Highway 395.

The Applicant's Proposed Action Alternative would enter Union County approximately 0.5 mile southwest of the town of Kamela. The community of Kamela is approximately 0.3 mile north of where the Applicant's Proposed Action Alternative crosses into Union County. The unincorporated community of Kamela served as railroad station of the Union Pacific Rail Road to serve the wood and timber industry in the area. Kamela is composed of a low-density concentration of residences and limited commercial/industrial activity.

Variation S1-B1

Variation S1-B1 starts south of Kamela and crosses approximately 4,191 acres of forest/woodland. A small cluster of residences are located in the study corridor for this variation about 2.5 miles south of Kamela.

Variation S1-B2

Variation S1-B2 starts south of Kamela to parallel the existing 230-kV transmission line crossing Interstate 84 twice before rejoining the Applicant's Proposed Action Alternative south of the interstate. Existing land uses are similar to Variation S1-B1.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

East of Bombing Range Road Alternative

The East of Bombing Range Road Alternative traverses Morrow, Umatilla and Union counties in Oregon, and can generally be characterized as rural residential, agricultural, NWSTF Boardman Special-use Airspace and other military special-use airspace and vacant undeveloped areas. The study corridor for this alternative crosses approximately 25,175 acres (or 43 percent) of lands associated with

agricultural production and approximately 708 acres (or 1 percent) of developed lands (Table 3-226). The remaining 33,024 acres (or 56 percent) in the study corridor are undeveloped forest, grass and shrublands.

The East of Bombing Range Road Alternative is similar to the Applicant's Proposed Action Alternative. It differs only in that it parallels Bombing Range Road on the east side rather than on the west side of the road. This alternative is 0.4 mile longer than the Applicant's Proposed Action Alternative, and existing land uses within the 1-mile-wide study corridor are similar. As described in Section 2.5.2.1, the alternative route parallels the existing UEC 115-kV transmission line (located on the east side of Bombing Range Road) the BPA 69-kV line (located on the west side of Bombing Range Road). The remaining portions of this route are the same as the Applicant's Proposed Action Alternative.

Applicant's Proposed Action – Southern Route Alternative

The Applicant's Proposed Action – Southern Route Alternative traverses Morrow, Umatilla and Union counties in Oregon, and can generally be characterized as rural residential, agricultural, NWSTF Boardman Special-use Airspace and other military special-use airspace and vacant undeveloped areas. The study corridor for this alternative crosses approximately 22,166 acres (or 35 percent) of lands associated with agricultural production and approximately 688 acres (or 1 percent) of developed lands (Table 3-226). The remaining 40,546 acres (or 64 percent) in the study corridor are undeveloped forest, grass and shrublands.

The Applicant's Proposed Action – Southern Route Alternative is the longest of the Segment 1 alternatives, and is the same as the Applicant's Proposed Action Alternative through Morrow County. In Umatilla County at Link 1-60 this alternative turns south crossing U.S. Highway 395 about 4 miles west of Pilot Rock and continue to the south before turning toward the east and ascending the Blue Mountains across Rocky Ridge, where it would continue the same alignment as the Applicant's Proposed Action Alternative (described above) from Link 1-65. Existing land uses are the same as those described for the Applicant's Proposed Action Alternative (Variation S1-B1), except that this alternative avoids the existing residences in the vicinity north of Pilot Rock. However, the route crosses in the vicinity of rural residences along Link 1-66 where it crosses Birch Creek.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

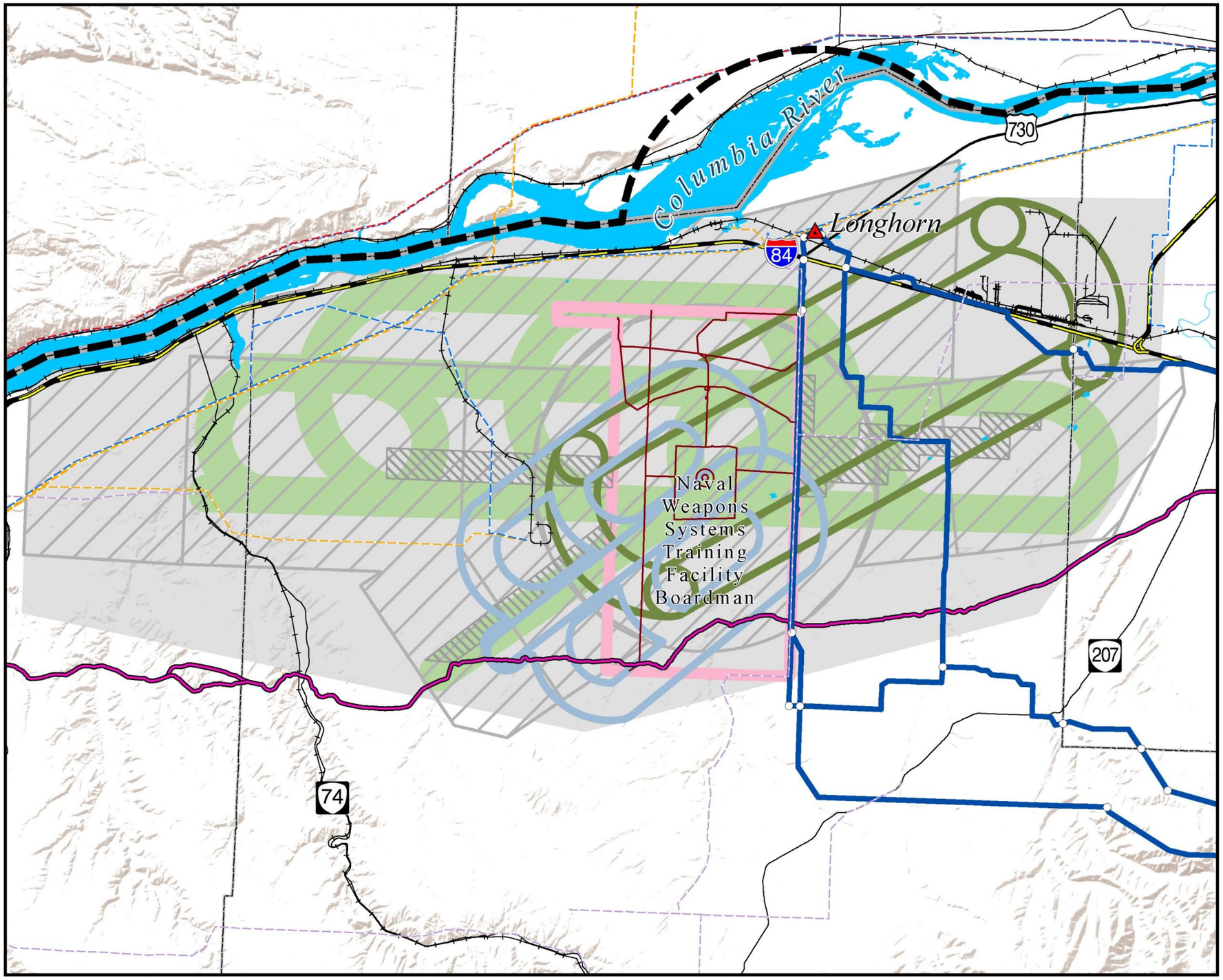
The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

Design Option 2

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

Design Option 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.



Map 3-2

Naval Weapons Systems Training Facility Boardman (NWSTF Boardman)

BOARDMAN TO HEMINGWAY TRANSMISSION LINE PROJECT

NWSTF Boardman[1]

- NWSTF Boardman
- Firebreaks
- Flight Corridors (Proposed)
- Flight Corridor (Starting Point)
- Flight Corridor (Low Altitude Tactical Training)
- Military Avigation
- Restricted Special Use Airspace
- General Special Use Airspace

Project Features

- Project Area Boundary
- Substation (Project Terminal)
- Alternative Route
- Link Node

General Reference

- 500-kV Transmission Line
- 230-kV Transmission Line
- 69- to 115-kV Transmission Line
- Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- Lake or Reservoir
- State Boundary
- County Boundary
- Oregon National Historic Trail Congressionally Designated Alignment

SOURCES:
NWSTF Boardman, BLM 2015;
Firebreaks, U.S. Navy 2011; Military Flight Corridor Areas, U.S. Navy 2014;
Military Avigation Areas, U.S. Navy 2014 Special Use Airspace Zones, U.S. Navy 2010;
Transmission Lines, Ventyx 2012, Logan Simpson Design 2011, Bonneville Power Administration 2009, Idaho Power Company 2007; Substations, EPG 2015;
Railroads, Idaho DOT 2006, Oregon DOT 2009; Highways, ESRI 2013;
Waterbodies, ESRI 2013; State and County Boundaries, ESRI 2013;
Oregon National Historic Trail Congressionally Designated Alignment, BLM 2015

NOTES:
[1]The flight corridor data discussed in this B2H Project Environmental Impact Statement are pulled from the NWSTF Boardman Final Environmental Impact Statement (December 2015). New flight corridor data were not collected as part of the B2H Project.

- The alternative routes shown on this map are draft and may be revised or refined throughout the development of the project.
- Substation symbols do not necessarily represent precise locations.
- The B2H Project area boundary is defined by buffering the alternative route centerlines.
- Each alternative route is composed of links, which are discrete sections of the route sharing common endpoints determined by the point of intersection with other adjacent links; the common endpoint is referred to as a link node. Links generally are numbered from north to south. Similarly, a segment is composed of alternative routes that share common endpoints determined by the point of intersection with other adjacent alternative routes; the common endpoint is referred to as a segment node.
- No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Alternative routes last revised: February 18, 2016
Final EIS: November 2016

0 1 2
Miles
1:215,000 or 1 inch = 3 miles

This page intentionally left blank.

West of Bombing Range Road – Southern Route Alternative

The West of Bombing Range Road – Southern Route Alternative traverses Morrow, Umatilla and Union counties in Oregon, and can generally be characterized as rural residential, agricultural, NWSTF Boardman Special-use Airspace and other military special-use airspace and vacant undeveloped areas. The study corridor for this alternative crosses approximately 15,868 acres (or 26 percent) of lands associated with agricultural production and approximately 560 acres (or 1 percent) of developed lands (Table 3-226). The remaining 45,073 acres (or 73 percent) in the study corridor are undeveloped forest, grass and shrublands.

The existing land uses within the study corridor are the same as the Applicant's Proposed Action – Southern Route Alternative for Links 1-1 through 1-41 and Links 1-66 through 1-77. At Link 1-41, the West of Bombing Range Road – Southern Route Alternative diverges from the Applicant's Proposed Action – Southern Route Alternative and continues an additional 5 miles to the south avoiding wind farm developments in Morrow County. Just west of Oregon Route 207, the alternative would turn to the east traversing an area of dryland agriculture for 15 miles before crossing Butter Creek and turning to the southeast paralleling Matlock Canyon. This alternative route then continues to the east for approximately 25 miles crossing U.S. Highway 395 approximately 9 miles southwest of Pilot Rock. The study corridor for this alternative crosses approximately 6,298 fewer acres of agricultural lands than the Applicant's Proposed Action – Southern Route Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

Longhorn Alternative

The Longhorn Alternative traverses Morrow, Umatilla and Union counties in Oregon, and can generally be characterized as rural residential, agricultural, NWSTF Boardman Special-use Airspace and other military special-use airspace and vacant undeveloped areas. The study corridor for this alternative crosses approximately 24,974 acres (or 44 percent) of lands associated with agricultural production and approximately 659 acres (or 1 percent) of developed lands (Table 3-226). The remaining 30,727 acres (or 55 percent) in the study corridor are undeveloped forest, grass and shrublands.

The Longhorn Alternative exits the proposed Longhorn Substation to the east crossing U.S. Highway 730 before turning to the south across Interstate 84. This alternative route then continues to the southeast avoiding irrigated agricultural lands and the Boardman Tree Farm for approximately 8 miles, then the transmission line would turn to the south toward Sand Hollow before heading east at Link 1-45. From Link 1-45 and where the alternative crosses Umatilla and Union counties, the Longhorn Alternative is the same as the Applicant's Proposed Action Alternative (Variation S1-B1). The Longhorn Alternative differs from the Applicant's Proposed Action Alternative by avoiding the NWSTF Boardman; however, it crosses approximately 2.5 miles more agricultural lands.

Interstate 84 Alternative

The Interstate 84 Alternative is approximately 84.7 miles in long, and traverses Morrow, Umatilla and Union counties in Oregon, and can generally be characterized as rural residential, commercial/industrial, agricultural, military special-use airspace and vacant undeveloped areas. The study corridor for this alternative crosses approximately 26,194 acres (or 49 percent) lands associated with agricultural production and approximately 2,315 acres (or 4 percent) of developed lands (Table 3-226). The remaining 24,994 acres (or 47 percent) in the study corridor are undeveloped forest, grass and shrublands.

The Interstate 84 Alternative exits the planned Longhorn Substation to the east crossing U.S. Highway 730 and then parallels the north side of Interstate 84 for approximately 6.5 miles before crossing Interstate 84 adjacent to the Umatilla Ordnance Depot, and then paralleling the south side of Interstate 84 for approximately 29 miles to an area 6 miles west of Pendleton. In this area the alternative crosses areas of dense pivot and other irrigated farmlands as well as dryland farming. Clusters of low-density residential and commercial/industrial areas are located in the study corridor near the junction of I-84 and Hermiston Highway and the junction of I-84 and U.S. Highway 395, just south of the City of Stanfield. The alternative route then turns to the south crossing the Umatilla River before joining the alignment of the Applicant's Proposed Action Alternative northwest of Pilot Rock at Link 1-49. From Link 1-50 to 1-66 in Umatilla and Union counties, the affected environment would be the same as that described for the Applicant's Proposed Action Alternative.

Variation S1-A1

The affected environment for Variation S1-A1 would be the same as that described for the Interstate 84 Alternative along Link 131 crossing areas of dense pivot and other irrigated farmlands as well as dryland farming, with dispersed rural residences in the study corridor.

Variation S1-A2

This variation separates from the Interstate 84-Alternative by turning southeast in an area north of the community of Echo at Link 1-37 and parallels the existing 230-kV line crossing the Umatilla River approximately 15 miles west of Pendleton. The route continues to parallel the Umatilla River, about 1 mile to the south for another 9 miles before rejoining the Interstate 84 Alternative at Link 1-39. This variation crosses 726 fewer acres of developed land uses along the I-84 than Variation S1-A1. Low-density rural residential areas are located near the communities of Echo and Nolin in the study corridor.

Interstate 84 – Southern Route Alternative

The Interstate 84 – Southern Route Alternative is approximately 93.4 miles in length (8.7 miles longer than the Interstate 84 Alternative), and traverses Morrow, Umatilla and Union counties in Oregon. This alternative can generally be characterized as rural residential, commercial/Industrial, agricultural, military special-use airspace and vacant undeveloped areas. The study corridor for this alternative crosses approximately 24,015 acres (or 41 percent) lands associated with agricultural production and approximately 2,300 acres (or 4 percent) of developed lands (Table 3-226). The remaining 32,755 acres (or 55 percent) in the study corridor are undeveloped forest, grass and shrublands.

The Interstate 84 – Southern Route Alternative is the same as the Interstate 84 Alternative as it exits the proposed Longhorn Substation to the east crossing U.S. Highway 730 and then parallels the north side of Interstate 84 for approximately 6.5 miles. It then crosses Interstate 84 adjacent to the Umatilla Ordnance Depot, weaves through some agriculture, and parallels the south side of Interstate 84 for approximately 29 miles to an area 6 miles west of Pendleton. The alternative route then turns to the south crossing the Umatilla River and Jack Canyon before joining the Southern Route southwest of Pilot Rock and ascending the Blue Mountains across Rocky Ridge, where it shares the same alignment as the Applicant's Proposed Action Alternative from Link 1-65. Existing land uses are the same as those described for the Interstate 84 Alternative from Links 1-5 to 1-50, and the same as the Applicant's Proposed Action – Southern Route Alternative from Links 1-83 to 1-77.

The U.S. Army Umatilla Chemical Depot is located north of Interstate 84, approximately 12 miles northeast of NWSTF Boardman. This area was used for storage of chemical weapons until 2011. In 2010 the Redevelopment Plan for the site was adopted and the Columbia Development Authority is leading the effort for redevelopment of the site. The current redevelopment plan calls for the creation of a 7,500 acre National Guard training facility, 5,700 acre multi-use refuge, and approximately 3,965 acres of industrial, agriculture, or right-of-way redevelopment acreage. The details of the land transfer from the U.S. Army are under negotiation and the redevelopment of this area has not begun.

Timber Management

Table 3-228 identifies the extent of forested areas crossed by the alternatives and route variations in Segment 1. The information in Table 3-228 is derived from the forested vegetation types identified in the vegetation resources inventory (refer to Section 3.2.3). RCAs are not included in Table 3-228 because it is assumed that RCAs do not provide a timber resource. Sufficient data are not available to determine whether forested lands currently are being managed for timber resources or could be in the future.

Table 3-228. Forested Areas in the Study Corridor for Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Forested Vegetation Type (miles crossed)				
		Aspen	Forest- Other	Juniper and Mahogany Woodland	Mixed Conifer Forest	Total
Applicant's Proposed Action	91.9	0.3	0.1	0.0	13.6	14.0
Variation S1-B1	*6.4*	*0.0*	*0.0*	*0.0*	*5.7*	*5.7*
Variation S1-B2	*6.4*	*0.0*	*0.0*	*0.0*	*5.1*	*5.1*
East of Bombing Range Road	92.3	0.3	0.1	0.0	13.6	14.0
Applicant's Proposed Action – Southern Route	99.1	0.3	0.1	0.2	14.7	15.3
West of Bombing Range Road – Southern Route	95.6	0.3	0.1	0.2	14.7	15.3
Longhorn	88.2	0.3	0.1	0.0	13.6	14

Table 3-228. Forested Areas in the Study Corridor for Segment 1—Morrow-Umatilla						
Alternative Route	Total Length (miles)	Forested Vegetation Type (miles crossed)				
		Aspen	Forest- Other	Juniper and Mahogany Woodland	Mixed Conifer Forest	Total
Interstate 84	84.7	0.3	0.1	0.0	13.6	14
Variation S1-A1	*18.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S1-A2	*18.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Interstate 84 – Southern Route	93.4	0.3	0.1	0.2	14.7	15.3

Applicant's Proposed Action Alternative

Timber resources crossed by the Applicant's Proposed Action Alternative are primarily located on private lands and the Wallowa-Whitman National Forest in southeastern Umatilla and northwestern Union counties. The portions of the Wallowa-Whitman National Forest crossed by the Applicant's Proposed Action Alternative are not identified as timber management areas.

Other Alternative Routes and Variations in Segment 1

The timber resources present are similar among all other alternative routes and variations in Segment 1, refer to Table 3-228.

Fire Management

This section presents information on recent fire history, using available data dating from 2000 through 2015. All other aspects of the affected environment for fire management are considered to be common to all alternatives. Refer to Section 3.2.3 for additional information on fire ecology.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative primarily crosses areas that have not been affected by recent fires (i.e., since 2000). The Boardman Fire burned 27,165 acres in 2015, including a portion of the NWSTF Boardman training facility up to Bombing Range Road. The Applicant's Proposed Action Alternative crosses a portion of the previously burned area in this location.

Variations S1-B1 and S1-B2

No recently burned areas are crossed by Variations S1-B1 and S1-B2.

Additional Action – 69-Kilovolt Line Replacement

The additional action and its design options cross a portion of the area burned by the Boardman Fire.

East of Bombing Range Road Alternative

The East of Bombing Range Road Alternative shares much of the same alignment with the Applicant's Proposed Action Alternative. The Boardman Fire burned 27,165 acres in 2015, including a portion of the NWSTF Boardman training facility up to Bombing Range Road. The East of Bombing Range Road Alternative crosses or is adjacent to a portion of the previously burned area in this location.

Applicant's Proposed Action – Southern Route Alternative

The recently burned areas crossed by the Applicant's Proposed Action – Southern Route Alternative are the same as those described for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The recently burned areas crossed by the West of Bombing Range Road – Southern Route Alternative are the same as those described for the Applicant's Proposed Action Alternative.

Longhorn Alternative

No recently burned areas are crossed by the Longhorn Alternative.

Interstate 84 Alternative and Variations

No recently burned areas are crossed by the Interstate 84 Alternative.

Variations S1-A1 and S1-A2

No recently burned areas are crossed by Variations S1-A1 and S1-A2.

Interstate 84 – Southern Route Alternative

No recently burned areas are crossed by the Interstate 84 – Southern Route Alternative.

Zoning

The following is an inventory of the generalized zoning classifications for each alternative and route variation in Segment 1. Refer to Section 3.2.6.4 for a description of the generalized zoning types, and MV-14 for their locations.

Applicant's Proposed Action Alternative

Approximately 70 percent of the Applicant's Proposed Action Alternative crosses lands zoned for agriculture and approximately 17 percent zoned for Timber/Grazing. Other zones crossed include industrial zones, and federal zones associated with the NWSTF Boardman.

Variations S1-B1 and S1-B2

Approximately 100 percent of the Variations S1-B1 and S1-B2 cross lands zoned for Timber/Grazing.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

Zoning for lands associated with the additional action Design Options 1 through 3 would be the same as described for the Applicant's Proposed Action Alternative.

East of Bombing Range Road Alternative

Approximately 81 percent of the East of Bombing Range Road Alternative crosses lands zoned for agriculture and approximately 17 percent zoned for Timber/Grazing and 2 percent zoned industrial zone.

Applicant's Proposed Action – Southern Route Alternative

Approximately 71 percent of the Applicant's Proposed Action – Southern Route Alternative crosses lands zoned for agriculture and approximately 17 percent zoned for Timber/Grazing. Other zones crossed include industrial zones, and federal zones associated with the NWSTF Boardman.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Zoning for lands associated with the additional action Design Options 1 through 3 would be the same as described for the Applicant's Proposed Action – Southern Route Alternative.

West of Bombing Range Road – Southern Route Alternative

Approximately 70 percent of the West of Bombing Range Road – Southern Route Alternative crosses lands zoned for agriculture and approximately 17 percent zoned for Timber/Grazing. Other zones crossed include industrial zones, and federal zones associated with the NWSTF Boardman.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

Zoning for lands associated with the additional action Design Options 1 through 3 would be the same as described for the West of Bombing Range Road – Southern Route Alternative.

Longhorn Alternative

Approximately 81 percent of the Longhorn Alternative crosses lands zoned for agriculture and approximately 18 percent zoned for Timber/Grazing, and 1 percent zoned for industrial.

Interstate 84 Alternative and Variations

Approximately 77 percent of the Interstate 84 Alternative crosses lands zoned for agriculture and approximately 19 percent zoned for Timber/Grazing. Other zones crossed include commercial and industrial zones.

Variation S1-A1

Approximately 98 percent of the Variation S1-A1 crosses lands zoned for agriculture and approximately 2 percent zoned for Industrial.

Variation S1-A2

Approximately 100 percent of the Variation S1-A2 crosses lands zoned for agriculture.

Interstate 84 – Southern Route Alternative

Approximately 78 percent of the Interstate 84 – Southern Route Alternative crosses lands zoned for agriculture and approximately 18 percent zoned for Timber/Grazing. Other zones crossed include commercial and industrial zones.

Military Training

Table 3-229 presents the affected environment for special-use airspace and training routes in the study corridor for alternatives and route variations in Segment 1.

Table 3-229. Military Training Areas in the Study Corridor for Segment 1—Morrow-Umatilla		
Alternative Route	**Total Length (miles)**	**Military Training Areas (miles crossed)**
Applicant's Proposed Action	91.9	15.1
Variation S1-B1	*6.4*	*0.0*
Variation S1-B2	*6.4*	*0.0*
East of Bombing Range Road	92.3	15.2
Applicant's Proposed Action – Southern Route	99.1	15.1
West of Bombing Range Road – Southern Route	95.6	15.1
Longhorn	88.2	17.6
Interstate 84	84.7	14.7
Variation S1-A1	*18.5*	*0.0*
Variation S1-A2	*18.5*	*0.0*
Interstate 84 – Southern Route	93.4	14.7

Applicant's Proposed Action Alternative

NWSTF Boardman is located in the northern portion of the B2H Project area approximately 0.5 mile south of the City of Boardman in Morrow County, Oregon. NWSTF Boardman supports regional training operations for units based in the Pacific Northwest area, including aviation unit stations at Naval Air Station Whidbey Island, Washington and units of the Oregon National Guard (ORNG).

Navy and ORNG Environmental Management Systems provide a formal management framework to achieve environmental goals through repeatable and consistent control of its operations. Compliance with environmental regulations and associated DoD, Navy, and ORNG policies is accomplished through a variety of well-established programs and related plans, processes, and procedures.

Area available for military ground training is confined to approximately 47,000 acres within the boundaries of NWSTF Boardman and approximately 490 square miles of special-use airspace are available above NWSTF Boardman. In addition, the ORNG uses the NWST Boardman training facility. Several air-to-ground target areas currently exist within the boundaries of NWSTF Boardman as well as several administrative buildings. Outside the eastern boundary of the facility along Bombing Range Road is an easement for road and utility corridor (Navy 2015).

The Applicant's Proposed Action Alternative is located along the western right-of-way boundary of Bombing Range Road (on property owned by NWSTF Boardman) within a 90-foot-wide use area currently occupied by BPA's 69-kV transmission line. The repurposing of the 90-foot-wide use area would dissolve the current agreement and necessitate a new land-use agreement for the use of NWSTF Boardman property between the Applicant and the Navy.

The land immediately surrounding NWSTF Boardman is predominately agricultural production, but also includes a Boeing Company test facility, a commercial solid waste landfill, and a Portland General Electric electrical generation plant (Navy 2015). Windmill development farms have recently been constructed in the southeast portion of the special-use airspace and more are planned in the surrounding area (refer to the Existing Land Use section of Segment 1 above).

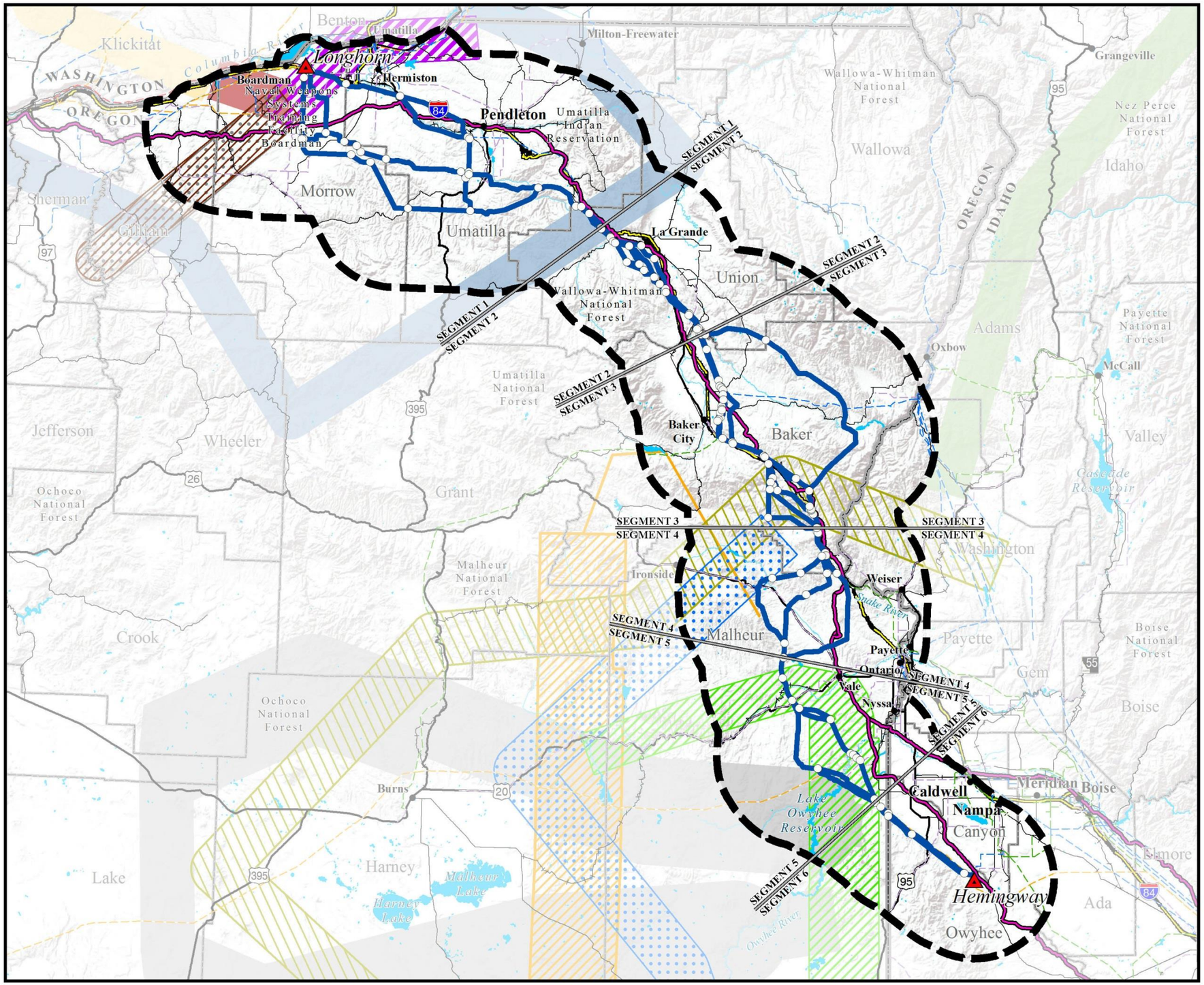
In April of 2016, NWSTF Boardman issued a ROD indicating that the Navy will move forward with Alternative 2 of their EIS. Alternative 2 of the NWSTF Boardman ROD will result in enhanced training and testing activities, including the construction of new range facilities. NWSTF Boardman will also expand new special-use airspace in the form of military operation areas (MOA) northeast of the NWSTF Boardman. Training activities for fixed wing and rotary wing aircrafts are planned to increase by 190 percent at NWSTF Boardman (Navy 2015).The additional MOA would include non-restricted airspace called Boardman Low MOA. This MOA consists of low altitude flight tracks (500 feet and above) within the northeast area of NWSTF Boardman Special-use Airspace.

Current training and testing activities conducted at NWSTF Boardman include the following:

- Air Warfare Training
- Electronic Warfare Training
- Strike Warfare (Air-to-Ground Exercises)
- Unmanned Aircraft System Operations Training and Testing
- Equipment and Personnel Insertion and Extraction Training
- Helicopter Training Operations
- Live Fire Range Operations
- Intelligence, Surveillance, and Reconnaissance Training (Navy 2015)

Military training routes (MTRs) are aerial corridors used solely by military aviation for training flights. The routes are the result of a joint venture between the FAA and the DoD to provide for high-speed, low-level military activities. Military training routes are divided in to instrument routes, and visual routes. Unless noted on the air navigation chart, aircraft may fly as low as 200 feet above ground level along these routes. Map 3-3 shows the location of MTRs in the B2H Project area.

The airspace over NWSTF Boardman comprises two different types of special-use airspace categories, including Restricted Areas and MOA airspace. Restricted Areas are established to confine or segregate activities that may be hazardous to aircrafts such as weapons firing, aerial gunnery, or unmanned aircraft system activities. This includes air warfare training for low altitude tactical training, surface to air counter tactics, and electronic warfare training. MOAs are designated to contain nonhazardous, military flight activates, including, but not limited to, air combat maneuvers, air intercepts, and low altitude tactics (Navy 2015). The MOA airspace overlies most of the restricted airspace areas. Approximately 15.1 miles of NWSTF Boardman Special-use Airspace (13.5 of which is restricted) falls within the study area for the Applicant’s Proposed Action Alternative. Military training routes within special-use airspace associated with these activities extend beyond the footprint of the NWSTF Boardman training facility and extend throughout most of the study corridor in Segment 1 as shown in Map 3-3.



Map 3-3

Military Training Routes

BOARDMAN TO HEMINGWAY TRANSMISSION LINE PROJECT

Military Training Routes

- Instrument Route (IR)-300
- IR-301/307
- IR-304
- IR-342/344/346
- IR-343
- Visual Route (VR)-1301
- VR-1302
- VR-1350/1351
- VR-1353
- VR-1354
- VR-1355
- VR-315/319

Project Features

- Project Area Boundary
- Substation (Project Terminal)
- Alternative Route
- Link Node
- Segment Line

General Reference

- City or Town
- 500-kV Transmission Line
- 345-kV Transmission Line
- 230-kV Transmission Line
- 138-kV Transmission Line
- 69- to 115-kV Transmission Line
- Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- Lake or Reservoir
- State Boundary
- County Boundary
- Oregon National Historic Trail Congressionally Designated Alignment

SOURCES:
Military Training Routes, U.S. Navy 2009, 2012, Logan Simpson Design 2013;
Cities and Towns, ESRI 2013;
Transmission Lines, Bonneville Power Administration 2009, Idaho Power Company 2007, Logan Simpson Design 2011, Ventyx 2012; Pipelines, ESRI 2012;
Railroads, Idaho DOT 2006, Oregon DOT 2014; Highways, ESRI 2013;
Waterbodies, ESRI 2013; State and County Boundaries, ESRI 2013;
Oregon National Historic Trail Congressionally Designated Alignment, BLM 2015

NOTES:
- The alternative routes shown on this map are draft and may be revised or refined throughout the development of the project.
- Substation symbols do not necessarily represent precise locations.
- The B2H Project area boundary is defined by buffering the alternative route centerlines.
- Each alternative route is composed of links, which are discrete sections of the route sharing common endpoints determined by the point of intersection with other adjacent links; the common endpoint is referred to as a link node. Links generally are numbered from north to south. Similarly, a segment is composed of alternative routes that share common endpoints determined by the point of intersection with other adjacent alternative routes; the common endpoint is referred to as a segment node.
- No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Alternative routes last revised: February 18, 2016
Final EIS: November 2016

0 5 10 20 30 40
Miles
1:1,393,920 or 1 inch = 22 miles

This page intentionally left blank.

These flight tracks travel over mostly agricultural lands and some residential development in the south portion of the City of Boardman. Refer to the Existing Land Use section above for further discussion of land use in Segment 1 of the B2H Project area.

The eastern portion of NWSTF Boardman is composed of an area used by The Nature Conservancy under a cooperative management agreement for approximately 5,050 acres. This area is divided into three tracts and managed as RNAs. The RNAs are part of a federal program and preserve high-quality areas of Columbia River Basin vegetation and associated wildlife. Refer to Specially Designated Areas of this section as well as Section 3.2.3, 3.2.4, and 3.2.13 for discussion regarding environmental resources present on NWSTF Boardman.

Prior training activities on NWSTF Boardman included activities such as weapons firing and air-to-ground bombing exercises. Therefore, NWSTF Boardman has safety concerns regarding the possible presence of unexploded ordnance resulting from historic military use of the property. NWSTF Boardman provides warning signage regarding unexploded ordinance hazards in areas where clearance has not been confirmed.

Fire safety is addressed through use of a system of 60-foot-wide fire breaks throughout NWSTF Boardman. These areas consist of small areas that are maintained by NWSTF Boardman to remain free of vegetation (or other combustible material) to provide a barrier to slow or stop the spread of fire. The B2H Project would use the existing fire break areas for staging of construction, operation and maintenance activities, in coordination with NWSTF Boardman, to minimize ground disturbance and avoid areas where unexploded ordinance clearance has not occurred. However, even areas that have previously been cleared of unexploded ordnance would require unexploded ordnance clearance protocols in coordination with NWSTF Boardman. Refer to MV-12 Land Status for locations of fire breaks in Segment 1 of the B2H Project area.

Variation S1-B1

The existing environment pertaining to military training would similar to the Applicant's Proposed Action Alternative. However, this variation does not cross any NWSTF Special-use Airspace.

Variation S1-B2

The existing environment pertaining to military training would be similar to the Applicant's Proposed Action Alternative. However, this variation does not cross any NWSTF Special-use Airspace.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

This additional action is relevant to the Applicant's Proposed Action Alternative. Design option 1 would involve partial removal of the existing BPA 69-kV line to allow the existing right-of-way for the BPA 69-kV line along the west side of Bombing Range Road to be repurposed for use by the B2H Project. Any new facilities would be located in private or state land. The existing environment pertaining to military training in special-use airspace would be the same as the Applicant's Proposed Action Alternative.

Design Option 2

This additional action is relevant to the Applicant's Proposed Action Alternative. Design option 2 would involve full removal of the existing 69-kV line to allow the existing right-of-way for the BPA 69-kV line along the west side of Bombing Range Road to be partially repurposed for use by the B2H Project by removing all portions of the existing 69-kV line off of the NWSTF Boardman and constructing a new dual circuit 230-kV line on the east side of Bombing Range Road. Any new facilities would be located in private or state land. The existing environment pertaining to military training in special-use airspace would be similar to the Applicant's Proposed Action Alternative.

Design Option 3

This additional action is relevant to the Applicant's Proposed Action Alternative. This design option would involve a new double-circuit 230-kV line, new 230 to 69-kV stepdown substation, and removal of all 69-kV line from the NWSTF Boardman. This option assumes the new 230-kV line has already been built to support wind development and includes the option to stepdown power from the 230-kV line to feed the existing 69-kV line south of the NWSTF Boardman, allowing the 69-kV line to be removed entirely clearing the right-of-way for use by the B2H Project. Any new facilities would be located in private or state land. The existing environment pertaining to military training in special-use airspace would be similar to the Applicant's Proposed Action Alternative.

East of Bombing Range Road Alternative

The existing environment pertaining to military training would be similar to the Applicant's Proposed Action Alternative. Approximately 15.2 miles of NWSTF Boardman Special-use Airspace (13.5 of which is restricted) falls within the study area for the East of Bombing Range Road Alternative. However, the proposed transmission line would be constructed along the east right-of-way boundary of Bombing Range Road.

Applicant's Proposed Action – Southern Route Alternative

The existing environment pertaining to military training and NWSTF Boardman Special-use Airspace would be the same as the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The existing environment pertaining to military training and NWSTF Boardman Special-use Airspace would be the same as the Applicant's Proposed Action Alternative.

Longhorn Alternative

The existing environment pertaining to military training would be similar to the Applicant's Proposed Action Alternative. Approximately 17.6 miles of NWSTF Boardman Special-use Airspace (14.9 of which is restricted) falls within the study area for the Longhorn Alternative. However, the Longhorn Alternative is located approximately 4 miles east of the NWSTF Boardman facility and would not necessitate a land-use agreement with the Navy for construction of transmission line structures or other B2H Project infrastructure.

Interstate 84 Alternative.

The existing environment pertaining to military training in special-use airspace would be similar to the Applicant's Proposed Action Alternative because the Interstate 84 Alternative is located within NWSTF Boardman Special-use Airspace. Approximately 14.7 miles of NWSTF Boardman Special-use Airspace (all of which is restricted) falls within the study area for the Interstate 84 Alternative. However, the Interstate 84 Alternative is colocated with Interstate 84 and would not necessitate a land-use agreement with the Navy for construction of transmission line structures or other B2H Project infrastructure.

Variation S1-A1

The existing environment pertaining to military training in would be similar to the Interstate 84 Alternative. However, Variation S1-A1 does not cross NWSTF Special-use Airspace.

Variation S1-A2

The existing environment pertaining to military training in would be similar to the Interstate 84 Alternative. However, Variation S1-A2 does not cross NWSTF Special-use Airspace.

Interstate 84 – Southern Route Alternative

The existing environment pertaining to military training and NWSTF Boardman Special-use Airspace would be the same as the Interstate 84 Alternative.

Specially Designated Areas

Specially designated areas are lands managed by federal or state agencies to protect values and land uses unique to an area. These areas typically require more intensive management emphasis than is applied to surrounding public lands. Specially designated areas are administratively designated. Administrative designations present in the study corridor are ACECs and RNAs. Other types of specially designated areas present in the B2H Project area include designations administered and managed by state natural resource and wildlife departments. These entities include missions to protect habitat, provide recreation and educational opportunities, such as Wildlife Areas. Table 3-230 presents the specially designated areas and their relevant and important values and management prescriptions for the alternatives and route variations in Segment 1.

Potential congressionally designated areas are described in Section 3.2.11; lands with wilderness characteristics are described in Section 3.2.10.

Table 3-230. Specially Designated Areas within the Study Corridor for Segment 1—Morrow-Umatilla		
Relevant and Important Values	**Management Prescriptions Relevant to Utility Rights-of-Way**	**Relevant Alternative Routes**
Areas of Critical Environmental Concern		
There are no ACECs present in the alternative route study corridors in Segment 1.		
Research Natural Areas		
Research Natural Area B		
196 acres in size; located outside of but immediately adjacent to the Target Octagon. It is included in a grazing lease; however, no grazing will occur on the area because it also is a dune stabilization area. It is fenced separately from the remaining lease area. Used for research on grazing/native plant relationships, noxious weed control studies, and other vegetation and wildlife studies. The Boardman Bombing Range contains the last high-quality representative of the native shrub-steppe vegetation that formerly covered millions of acres of the central Columbia Basin. The spectrum of sandy soils and sandy soil ecosystems is well represented and a number of species of concern are represented.	None. There is a developed set of standards and policy guidelines to provide greater uniformity in system definitions, objectives, classification, selection, use, management and administrative policies. The underlying emphasis in RNA management is on preserving and protecting the features of each area by controlling any disruptive use, encroachment, and development.	• Applicant's Proposed Action Alternative • Applicant's Proposed Action – Southern Route Alternative • East of Bombing Range Road Alternative • West of Bombing Range Road to Southern Route Alternative
Wildlife Areas		
Coyote Springs		
Part of the Columbia Basin Wildlife Area (Ladd Marsh Wildlife Area) and is located east of the City of Boardman in Morrow County along the Columbia River. The Coyote Springs Wildlife Area is within the Columbia Plateau ecoregion which is a composition of four ODFW managed wildlife areas. This wildlife area provides an important land base for the conservation and recreation of fish and wildlife within a highly privatized and altered landscape and plays an important role for the fall and spring migrations of waterfowl in addition to resident upland game bird production.	Signed into management agreement with the Bureau of Reclamation in 1975. Management of these areas will be habitat based, emphasizing management activities which provide for multiple species while maximizing hunting, fishing, trapping and other fish and wildlife-related recreational pursuits, where possible. The wildlife area contains an assortment of easements and access agreements. These agreements primarily pertain to irrigation delivery, power and natural gas transmission, rail and interstate transportation. All lands are owned by federal entities (i.e., Reclamation) and current easements and access agreements are held in trust.	• Applicant's Proposed Action Alternative • Applicant's Proposed Action – Southern Route Alternative • East of Bombing Range Road Alternative • West of Bombing Range Road to Southern Route Alternative

Area of Critical Environmental Concern

There are no ACECs present in the alternative route study corridors for Segment 1.

Research Natural Areas

According to the NWSTF Boardman Final INRMP, "RNAs are part of a federal government system established for research and educational purposes. Natural features are preserved for scientific purposes and natural processes are allowed to dominate. The RNA program was created to (1) preserve examples of all significant natural ecosystems for comparison with those influenced by man, (2) provide educational and research areas for ecological and environmental studies, and (3) preserve gene pools of typical and endangered plants and animals."

Three RNAs were established on the NWSTF Boardman in 1978 and are co-managed by The Nature Conservancy under a long-standing Cooperative Management Agreement with the Navy. Activities in the RNAs include "research and monitoring of the native habitat types and wildlife species, as well as control of noxious weeds."

Wildlife Areas

The Oregon Department of Fish and Wildlife manages state wildlife areas primarily to provide wildlife habitat, with recreational use as an incidental benefit in some locations. Public use for wildlife-oriented recreation is permitted in these areas, with some restrictions based on type of use, geographic extent, and/or season. Management plans are available for the Columbia Basin Wildlife Area (Ladd Marsh Wildlife Area). The management plans focus on habitat and wildlife management and do not address management for visual resources.

Applicant's Proposed Action Alternative

RNA – B on the NWSTF Boardman (Link 1-27) and Coyote Springs Wildlife Area is located in the study corridor for the Applicant's Proposed Action Alternative (refer to Table 3-230 for information related to relevant and important values and management prescriptions for these areas).

Variation S1-B1

This variation does not cross the RNA – B or Coyote Springs Wildlife Area.

Variation S1-B2

This variation does not cross the RNA – B or Coyote Springs Wildlife Area.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment would be the same as described for the Applicant's Proposed Action Alternative.

East of Bombing Range Road Alternative

The East of Bombing Range Road Alternative's affected environment is the same as described for the Applicant's Proposed Action Alternative.

Applicant's Proposed Action – Southern Route Alternative

The Applicant's Proposed Action – Southern Route Alternative's affected environment is the same as the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment would be the same as described for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The West of Bombing Range Road – Southern Route Alternative's affected environment is the same as described for the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment would be the same as described for the Applicant's Proposed Action Alternative.

Longhorn Alternative

The Longhorn Alternative avoids the RNA – B and the Coyote Springs Wildlife Area.

Interstate 84 Alternative and Variations

The Interstate 84 Alternative and Variations S1-A1 and S1-A2 avoid the RNA – B and the Coyote Springs Wildlife Area.

Interstate 84 – Southern Route Alternative

The Interstate 84 – Southern Route Alternative avoids the RNA – B and the Coyote Springs Wildlife Area.

SEGMENT 2—BLUE MOUNTAINS

Land Ownership, Utility Corridors, and Parallel Facilities

The study corridors in Segment 2 cross portions of two counties in Oregon and include a variety of ownership and management entities, including federal, state, and local land-managing agencies. In addition, there is one incorporated city, as well as numerous unincorporated communities, in the study corridors. Table 3-231 presents the acreage of land ownership crossed for the alternatives and route variations in Segment 2 (MV-12).

Table 3-231. Land Ownership within the 1-Mile-Wide Study Corridor for Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Land Ownership (acres)						
		Bureau of Land Management	Bureau of Reclamation	Tribal	Department of Defense	U.S. Forest	State	Private
Applicant's Proposed Action	33.8	180	0	0	0	1,593	43	20,133
Variation S2-A1	*2.8*	*0*	*0*	*0*	*0*	*1,480*	*41*	*814*
Variation S2-A2	*2.9*	*0*	*0*	*0*	*0*	*1,735*	*35*	*577*
Variation S2-B1	*3.7*	*164*	*0*	*0*	*0*	*0*	*0*	*2,670*
Variation S2-B2	*3.8*	*128*	*0*	*0*	*0*	*0*	*0*	*2,797*
Variation S2-C1	*9.3*	*0*	*0*	*0*	*0*	*40*	*0*	*6,393*
Variation S2-C2	*8.8*	*0*	*0*	*0*	*0*	*40*	*0*	*6,094*
Variation S2-E1	*2.3*	*0*	*0*	*0*	*0*	*21*	*0*	*1,922*
Variation S2-E2	*2.6*	*0*	*0*	*0*	*0*	*11*	*0*	*2,156*
Variation S2-F1	*12.1*	*16*	*0*	*0*	*0*	*0*	*0*	*8,198*
Variation S2-F2	*12.2*	*37*	*0*	*0*	*0*	*0*	*0*	*8,277*
Glass Hill	33.7	180	0	0	0	1,593	43	20,108
Variation S2-D1	*4.3*	*0*	*0*	*0*	*0*	*0*	*0*	*3,277*
Variation S2-D2	*4.1*	*0*	*0*	*0*	*0*	*25*	*0*	*3,110*
Mill Creek	34.0	114	0	0	0	1,735	62	20,324

There is one type of designated utility corridor in the study corridors for Segment 2, which is the USFS utility corridor located along Interstate-84 (refer to MV-12).

Existing linear energy-related facilities in the study corridors include transmission lines and pipelines. Table 3-232 provides a description of the major transmission line rights-of-way (69-kV and greater) relevant to the study corridors in Segment 2. As noted, pipelines also are considered an existing linear facility, and are included in the analysis of linear facilities. However the available data for this analysis are not refined enough to report by name, diameter, and owner. Refer to MV-12 for information regarding utility corridors within the B2H Project study corridor.

Table 3-232. Parallel Facilities within the 1-Mile-Wide Study Corridor for Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Transmission Lines		
		Name	Voltage (kilovolts)	Owner
Applicant's Proposed Action	33.8	Unnamed	230	IPC
		Unnamed	115	Federal
		Roundup To La Grande 230-kV	230	Federal
Variation S2-A1	*2.8*	*Roundup To La Grande 230-kV*	*230*	*Federal*
Variation S2-A2	*2.9*	*Roundup To La Grande 230-kV*	*230*	*Federal*

Table 3-232. Parallel Facilities within the 1-Mile-Wide Study Corridor for Segment 2—Blue Mountains				
Alternative Route	Total Length (miles)	Transmission Lines		
		Name	Voltage (kilovolts)	Owner
Variation S2-B1	*3.7*	*Roundup To La Grande 230-kV*	*230*	*Federal*
Variation S2-B2	*3.8*	*Roundup To La Grande 230-kV*	*230*	*Federal*
Variation S2-C1	*9.3*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*8.8*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-E1	*2.3*	*Unnamed*	*230*	*IPC*
Variation S2-E2	*2.6*	*Unnamed*	*230*	*IPC*
Variation S2-F1	*12.1*	*Unnamed*	*230*	*IPC*
Variation S2-F2	*12.2*	*Unnamed* *Unnamed*	*230* *115*	*Federal* *IPC*
Glass Hill	33.7	Unnamed Unnamed Roundup To La Grande 230-kV	230 115 230	IPC Federal Federal
Variation S2-D1	*4.3*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-D2	*4.1*	*Not applicable*	*Not applicable*	*Not applicable*
Mill Creek	34.0	Unnamed Unnamed Roundup To La Grande 230-kV	230 115 230	IPC Federal Federal
Table Note: IPC = Idaho Power Company				

Applicant's Proposed Action Alternative

The land ownership within the study corridor for the Applicant's Proposed Action Alternative is predominately private and USFS (Wallowa-Whitman National Forest).

The land ownership within the study corridor for Variation S2-A1, S2-A2 is predominately USFS (Wallowa-Whitman National Forest) and private. The land ownership within the study corridor for Variation S2-B1 is predominately private and BLM.

The land ownership within the study corridor for the Glass Hill Alternative and Mill Creek Alternative is similar to the Applicant's Proposed Action Alternative (predominately private and USFS).

The land ownership within the study corridor for all other alternatives and route variations is predominately private.

Existing Land Use

Segment 2 begins west of La Grande in Union County on the Wallowa-Whitman National Forest and ends east of North Powder in Union County.

Table 3-233 presents acreages of existing land uses within the 1-mile-wide study corridor of the alternatives and route variations in Segment 2.

Table 3-233. Existing Land Use within the 1-Mile-Wide Study Corridor Segment 2—Blue Mountains							
Alternative Route	Total Acres	Existing Land Use (acres)					
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland
Applicant's Proposed Action	21,920	626	188	245	9,846	1,004	10,011
Variation S2-A1	*2,333*	*4*	*5*	*141*	*1,503*	*384*	*296*
Variation S2-A2	*2,346*	*4*	*3*	*53*	*1,567*	*419*	*300*
Variation S2-B1	*2,834*	*36*	*42*	*10*	*1,591*	*45*	*1,110*
Variation S2-B2	*2,926*	*47*	*41*	*10*	*1,443*	*38*	*1,345*
Variation S2-C1	*6,432*	*11*	*39*	*0*	*4,955*	*60*	*1,368*
Variation S2-C2	*6,089*	*10*	*35*	*0*	*4,711*	*86*	*1,247*
Variation S2-E1	*1,943*	*0*	*5*	*0*	*1,093*	*15*	*831*
Variation S2-E2	*2,167*	*37*	*3*	*38*	*1,001*	*29*	*1,060*
Variation S2-F1	*8,187*	*499*	*105*	*90*	*555*	*472*	*6,466*
Variation S2-F2	*8,308*	*85*	*44*	*89*	*494*	*458*	*7,138*
Glass Hill	21,896	636	222	245	9,206	1,033	10,553
Variation S2-D1	*3,277*	*0*	*0*	*0*	*2,670*	*68*	*539*
Variation S2-D2	*3,135*	*0*	*0*	*0*	*2,585*	*249*	*300*
Mill Creek	22,228	595	175	315	7,386	1,476	12,281
Table Notes: This data is based on U.S. Geological Service GAP data.							

Table 3-234 presents existing structures within the 1-mile-wide study corridor of alternatives and route variations in Segment 2.

Table 3-234. Existing Land Use Structures Crossed by or Adjacent to Alternatives and Route Variations in Segment 2—Blue Mountains					
Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Applicant's Proposed Action	0	1 outstructure	3 outstructures 1 residential	1 building (non-residence) 10 outstructures 1 power substation 1 residential	4 buildings (non-residence) 9 campground facilities 2 communication facilities 1 extraction-mining 9 outstructures 3 residential
Variation S2-A1	*0*	*0*	*0*	*1 outstructure*	*9 campground facilities* *1 extraction-mining* *1 outstructure*

Table 3-234. Existing Land Use Structures Crossed by or Adjacent to Alternatives and Route Variations in Segment 2—Blue Mountains					
Alternative Route	**Crossed by the Reference Centerline**	**Within the Right-of-way**	**Distance from Reference Centerline**		
			0.125-mile	**0.126 to 0.25-mile**	**0.26 to 0.5-mile**
Variation S2-A2	*0*	*0*	*0*	*1 outstructure*	*9 campground facilities* *1 outstructure*
Variation S2-B1	*0*	*0*	*0*	*0*	*0*
Variation S2-B2	*0*	*0*	*0*	*0*	*1 building (non-residence)* *2 outstructures* *1 residential*
Variation S2-C1	*0*	*0*	*0*	*1 outstructure*	*2 buildings (non-residence)* *5 outstructures* *3 residential*
Variation S2-C2	*0*	*0*	*1 outstructure*	*1 building (non-residence)* *3 outstructures* *1 residential*	*2 buildings (non-residential)* *6 outstructures* *5 residential*
Variation S2-E1	*0*	*0*	*0*	*0*	*2 communication facilities* *2 outstructures*
Variation S2-E2	*0*	*0*	*0*	*0*	*1 building (non-residence)* *2 communication facilities* *2 outstructures* *1 residential*
Variation S2-F1	*0*	*1 outstructure*	*3 outstructures* *1 residential*	*1 building (non-residence)* *8 outstructures* *1 power substation* *1 residential*	*2 communication facilities* *3 outstructures*
Variation S2-F2	*1 power substation*	*0*	*0*	*1 building (non-residence)* *1 outstructure*	*2 communication facilities* *14 outstructures* *2 residential*
Glass Hill	0	1 outstructure	3 outstructures 1 residential	1 building (non-residence) 9 outstructures 1 power substation 1 residential	4 buildings (non-residence) 9 campground facilities 2 communication facilities 1 extraction-mining 7 outstructures 2 residential

Table 3-234. Existing Land Use Structures Crossed by or Adjacent to Alternatives and Route Variations in Segment 2—Blue Mountains					
Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Variation S2-D1	*0*	*0*	*0*	*0*	*1 building (non-residence)* *1 outstructure* *2 residential*
Variation S2-D2	*0*	*0*	*0*	*0*	*1 building (non-residence)* *1 outstructure* *2 residential*
Mill Creek	1 power substation	0	0	6 buildings (non-residence) 9 campground facilities 18 outstructures 9 residential	10 buildings (non-residence) 2 communication facilities 1 other 35 outstructures 26 residential

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative in Segment 2 crosses unincorporated portions of Union and Baker counties in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed of forest, woodland, and shrublands, with agriculture and farming occurring near the southern end of the segment. The 1-mile-wide study corridor for this alternative crosses approximately 626 acres (or 3 percent) of lands associated with agricultural production and approximately 245 acres (or 1 percent) of developed lands (Table 3-233). The remaining 21,049 acres (or 96 percent) in this study corridor are undeveloped forest, grass and shrublands. Approximately 46 structures occur within 0.5 mile of the reference centerline of this alternative. No structures are crossed by the reference centerline, but one outstructure is located within the proposed right-of-way (Table 3-234).

Variation S2-A1

Variation S2-A1 is approximately 2.9 miles long, and is located approximately 2 miles west of the community of Hilgard along Links 2-1 and 2-5 of the Applicant's Proposed Action Alternative. The existing land use within the study corridor for this variation can generally be characterized vacant undeveloped areas composed of forest, woodland, and shrublands. Approximately 12 structures are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S2-A2

Variation S2-A2 is similar in length and existing land use characteristics to Variation S2-A1. Eleven structures are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S2-B1

Variation S2-B1 is approximately 3.6 miles long, and is located approximately 2.4 miles south of the community of Hilgard along Links 2-30 and 2-35 of the Applicant's Proposed Action Alternative. Existing land uses within the study corridor for this variation can generally be characterized vacant undeveloped areas composed of forest, woodland, and shrublands. No structures are located within 0.5 mile of the reference centerline of this variation.

Variation S2-B2

Variation S2-B2 is approximately 3.8 miles long, and is located approximately 2.5 miles south of the community of Hilgard along Link 2-25. Within the study corridor for this variation existing land use characteristics are similar to Variation S2-B1. Approximately four structures, including one residence, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S2-C1

Variation S2-C1 is approximately 9.3 miles long, and is located approximately 3.9 miles southwest of the city of La Grande along Links 2-45, 2-47, and 2-50 of the Applicant's Proposed Action Alternative. Existing land uses within the study corridor for this variation can generally be characterized as vacant undeveloped areas composed of forest, woodland, and shrublands. Approximately 11 structures, including 3 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S2-C2

Variation S2-C2 is approximately 8.8 miles long, and is located approximately 3.2 miles southwest of the city of La Grande along Link 2-48. Existing land use characteristics within the study corridor for this variation are similar to Variation S2-C1. Approximately 19 structures, including 6 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S2-E1

Variation S2-E1 is approximately 2.3 miles long and is located approximately 7.7 miles west of the city of Union along Link 2-60 of the Applicant's Proposed Action Alternative. Existing land uses within the study corridor for this variation can generally be characterized as vacant undeveloped areas composed of forest, woodland, and shrublands. Approximately four structures are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S2-E2

Variation S2-E2 is approximately 2.6 miles long and is located approximately 7.2 miles west of the city of Union along Links 2-55 and 2-65. In addition to being similar to Variation S2-E1 for existing land use characteristics, small areas of agriculture and developed land occur within the study corridor for Variation S2-E2. Approximately six structures, including one residence, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S2-F1

Variation S2-F1 is approximately 12.1 miles long and is located approximately 3.0 miles northeast of the city of North Powder along Links 2-75, 2-85, and 2-95 of the Applicant's Proposed Action Alternative. Existing land uses within the study corridor for this variation can generally be characterized as vacant undeveloped areas composed of predominantly shrubland, with small areas of agriculture, developed land, forest and woodlands. Approximately 21 structures, including 20 residences, are located within 0.5 mile of the reference centerline of this variation, and one outstructure is located within the proposed right-of-way.

Variation S2-F2

Variation S2-F2 is approximately 12.2 miles long and is located approximately 3.4 miles northeast of the city of North Powder along Links 2-70, 2-80, and 2-90. The existing land uses occurring within the study corridor for this variation are similar to Variation S2-F1 except that less agricultural lands occur. Approximately 21 structures, including 2 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation one structure, an electric power substation, is crossed by the reference centerline.

Glass Hill Alternative

The Glass Hill Alternative in Segment 2 crosses unincorporated portions of Union and Baker counties in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed of forest, woodland, and shrublands, with agriculture and farming occurring near the southern end of the segment. The 1-mile-wide study corridor for this alternative crosses approximately 636 acres (or 3 percent) of lands associated with agricultural production and approximately 245 acres (or 1 percent) of developed lands (Table 3-233). The remaining 21,015 acres (or 96 percent) in this study corridor are undeveloped forest, grass and shrublands. Approximately 42 structures, including 4 residences, occur within 0.5 mile of the reference centerline of this alternative, and one structure is located within the proposed right-of-way. For this alternative no structures are crossed by the reference centerline (Table 3-234).

Variation S2-D1

Variation S2-D1 is approximately 4.1 miles long and is located approximately 5.2 miles southwest of the city of La Grande along Links 2-42, and 2-47 of the Glass Hill Alternative. Existing land uses within the study corridor for this variation can generally be characterized as vacant undeveloped areas composed of predominantly forest woodland, shrubland, and grassland. Approximately four structures, including

two residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S2-D2

Variation S2-D2 is approximately 4.3 miles long and is located approximately 6.0 miles southwest of the city of La Grande along Link 2-46. Existing land use characteristics within the study corridor for this variation are similar to Variation S2-D1.

Mill Creek Alternative

The Mill Creek Alternative in Segment 2 crosses unincorporated portions of Union and Baker counties in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed of forest, woodland, and shrublands, with agriculture and farming occurring near the southern end of the segment. The 1-mile-wide study corridor for this alternative crosses approximately 595 acres (or 3 percent) of lands associated with agricultural production and approximately 315 acres (or 1 percent) of developed lands (Table 3-233). The remaining 21,317 acres (or 96 percent) in this study corridor are undeveloped forest, grass and shrublands. Approximately 117 structures, including 35 residences, occur within 0.5 mile of the reference centerline of this alternative, and one structure, an electric power substation is crossed by the reference centerline (Table 3-234).

Timber Management

Table 3-235 presents the affected environment for timber management for the alternatives and route variations in Segment 2.

Table 3-235. Timber Management within the 1-Mile-Wide Study Corridor for Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Aspen	Forest-Other	Juniper and Mahogany Woodland	Mixed Conifer Forest	Total
Applicant's Proposed Action	33.8	0.2	0.0	1.1	10.1	11.4
Variation S2-A1	*2.8*	*0.0*	*0.0*	*0.0*	*1.4*	*1.4*
Variation S2-A2	*2.9*	*0.0*	*0.0*	*0.0*	*1.5*	*1.5*
Variation S2-B1	*3.7*	*0.0*	*0.0*	*0.1*	*1.2*	*1.3*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*	*1.4*	*1.4*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.9*	*5.0*	*5.9*
Variation S2-C2	*8.8*	*0.0*	*0.0*	*0.7*	*4.7*	*5.4*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*	*1.2*	*1.2*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.4*	*0.8*	*1.2*
Variation S2-F1	*12.1*	*0.2*	*0.0*	*0.0*	*0.1*	*0.3*
Variation S2-F2	*12.2*	*0.0*	*0.0*	*0.2*	*0.0*	*0.2*
Glass Hill	33.7	0.2	0.0	1.3	8.9	10.4
Variation S2-F1	*4.3*	*0.0*	*0.0*	*1.0*	*2.2*	*3.2*
Variation S2-F2	*4.1*	*0.0*	*0.0*	*0.0*	*2.4*	*2.4*
Mill Creek	34.0	0.0	0.0	1.3	7.3	8.6

Applicant's Proposed Action Alternative

Timber resources crossed by the Applicant's Proposed Action Alternative are primarily located on private lands and a small portion of the Wallowa-Whitman National Forest in northwestern and central Union County. The portions of the Wallowa-Whitman National Forest crossed by the Applicant's Proposed Action Alternative are not identified as timber management areas. However, a Power Transportation Facilities Management Area (Management Area 17) area is identified in this portion of the Wallowa-Whitman National Forest north of Interstate 84 just west of La Grande. This area is presently in use for transport of gas, oil and electricity (USFS 1990).

Other Alternative Routes and Variations in Segment 2

The timber resources, where present, are similar among all other alternative routes and variations in Segment 2 (Table 3-235).

Fire Management

No recent fires burned any areas crossed by alternative routes and variations on Segment 2. All other aspects of the affected environment for fire management are considered to be common to all alternatives. Refer to Section 3.2.3 for additional information on fire ecology.

Zoning

The following is an inventory of the generalized zoning classifications for each alternative and route variation in Segment 2. Refer to Section 3.2.6.4 for a description of the generalized zoning types, and MV-14 for their locations.

Applicant's Proposed Action Alternative

Approximately 70 percent of the Applicant's Proposed Action Alternative crosses lands zoned for Timber/Grazing, approximately 15 percent zoned for Grazing, and approximately 14 percent crosses lands zoned for Agriculture.

Variations S2-A1, S2-A2, S2-B1, S2-B2, S2-C1, and S2-C2

Approximately 100 percent of the variations cross lands zoned for Timber/Grazing.

Variation S2-E1

Approximately 61 percent of the Variation S2-E1 crosses lands zoned for Timber/Grazing, and approximately 39 percent zoned for Grazing.

Variation S2-E2

Approximately 46 percent of the Variation S2-E2 crosses lands zoned for Timber/Grazing, and approximately 54 percent zoned for Grazing.

Variation S2-F1

Approximately 40 percent of the Variation S2-F1 crosses lands zoned for Agriculture, approximately 34 percent zoned for Grazing. Other zones crossed include Timber/Grazing and Industrial.

Variation S2-F2

Approximately 39 percent of the Variation S2-F2 crosses lands zoned for zoned for Grazing, approximately 35 percent Timber/Grazing and approximately 25 percent crosses lands zoned for Agriculture.

Glass Hill Alternative

Approximately 70 percent of the Glass Hill Alternative crosses lands zoned for Timber/Grazing, approximately 15 percent zoned for Grazing, and approximately 14 percent crosses lands zoned for Agriculture.

Variations S2-D1 and S2-D2

Approximately 100 percent of Variations S2-D1 and S2-D2 cross lands zoned for Timber/Grazing.

Mill Creek Alternative

Approximately 73 percent of the Mill Creek Alternative crosses lands zoned for Timber/Grazing, approximately 18 percent zoned for Grazing, and approximately 9 percent crosses lands zoned for Agriculture.

Military Training

Table 3-236 presents the affected environment for military training in special-use airspace for the alternatives and route variations in Segment 2.

Table 3-236. Military Training within the 1-Mile-Wide Study Corridor for Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Military Training Routes (miles crossed)
Applicant's Proposed Action	33.8	3.1
Variation S2-A1	*2.8*	*2.8*
Variation S2-A2	*2.9*	*2.9*
Variation S2-B1	*3.7*	*0.0*
Variation S2-B2	*3.8*	*0.0*
Variation S2-C1	*9.3*	*0.0*
Variation S2-C2	*8.8*	*0.0*
Variation S2-E1	*2.3*	*0.0*
Variation S2-E2	*2.6*	*0.0*
Variation S2-F1	*12.1*	*0.0*
Variation S2-F2	*12.2*	*0.0*
Glass Hill	33.7	3.1
Variation S2-D1	*4.3*	*0.0*
Variation S2-D2	*4.1*	*0.0*
Mill Creek	34.0	3.2

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses through MTRs southwest of NWSTF Boardman. Military training routes are aerial corridors used solely by military aviation for training flights within

special-use airspace. The routes are the result of a joint venture between the FAA and the DoD to provide for high-speed, low-level military activities. Military training routes are divided into instrument routes, and visual routes. Unless noted on the air navigation chart, aircraft may fly as low as 100 to 110 feet above ground level in the B2H Project area along these routes. Special-use airspace in Segment 2 is used by Navy and other military organizations and is not limited to NWSTF Boardman operations. Map 3-3 shows the location of MTRs in the B2H Project area.

The existing environment pertaining to military training in special-use airspace for Variations S2-A1 and S2-A2 would be the same as the Applicant's Proposed Action Alternative. No other route variations are located within MTRs.

Glass Hill Alternative

The Glass Hill Alternative crosses through the same amount of MTRs southwest of NWSTF Boardman. Therefore, the existing environment pertaining to military training in special-use airspace would be the same as to the Applicant's Proposed Action Alternative.

Variations S2-D1 and S2-D2 are not located within any existing or proposed MTRs.

Mill Creek Alternative

The Mill Creek Alternative crosses through MTRs southwest of NWSTF Boardman. Therefore, the existing environment pertaining to military training in special-use airspace would be slightly less but similar to the Applicant's Proposed Action Alternative.

Specially Designated Areas

Specially designated areas are lands managed by federal or state agencies to protect values and land uses unique to an area. These areas typically require more intensive management emphasis than is applied to surrounding public lands. Specially designated areas are administratively designated. Administrative designations present in the B2H Project area are ACECs and RNAs. Other types of specially designated areas present in the B2H Project area include designations administered and managed by state natural resource and wildlife departments. These entities include missions to protect habitat, provide recreation and educational opportunities. These include Wildlife Areas.

Congressionally designated areas are described in Section 3.2.11; lands with wilderness characteristics are described in Section 3.2.10.

Area of Critical Environmental Concern

There are no ACECs present in the alternative route study corridors for Segment 2.

Research Natural Areas

There are no RNAs present in the alternative route study corridors for Segment 2.

Wildlife Areas

Wildlife areas managed by the ODFW exist in the Segment 2 study corridor. ODFW manages state wildlife areas primarily to provide wildlife habitat, with recreational use as an incidental benefit in some

locations. Public use for wildlife-oriented recreation is permitted in these areas, with some restrictions based on type of use, geographic extent, and/or season. Management plans are available for the Columbia Basin Wildlife Areas (Ladd Marsh Wildlife Area). The management plans focus on habitat and wildlife management and do not address management for visual resources.

Table 3-237 presents the specially designated areas and their relevant and important values and management prescriptions for all alternative routes and route variations in Segment 2.

Table 3-237. Specially Designated Areas within the 1-Mile-Wide Study Corridor for Segment 2—Blue Mountains

Relevant and Important Values	Management Prescriptions Relevant to Utility Rights-of-Way	Relevant Alternative Routes
Areas of Critical Environmental Concern		
There are no areas of critical environmental concern present in the alternative route study corridors in Segment 2.		
Research Natural Areas		
There are no research natural areas present in the alternative route study corridors in Segment 2.		
Wildlife Areas		
Ladd Marsh Wildlife Area		
One of the largest remaining wetlands in northeast Oregon established in 1949 with the primary objectives of protecting and improving nesting and migrating waterfowl habitat and providing a public hunting area. Part of the Columbia Basin Wildlife Area (Ladd Marsh Wildlife Area) which is a composition of four ODFW managed wildlife areas located along the Columbia River. This Wildlife Area is within the Blue Mountain ecoregion. This wildlife area has a significant land base well suited to support indigenous fish and wildlife species and migratory water birds. Wetland and associated uplands provide habitat for a diverse array of wildlife species. The habitat types found here are of quality and quantity to make a significant contribution to wildlife resources in this portion of Oregon. Goals of this Wildlife Area are: • Goal 1: To protect, enhance, and manage wetland habitats to benefit fish and wildlife species. • Goal 2: To protect, enhance, and manage upland habitats to benefit a wide variety of wildlife species. • Goal 3: To provide a variety of wildlife-oriented recreational and educational opportunities to the public which are compatible with Goals 1 and 2.	Managed by the ODFW in accordance with the *Ladd Marsh Wildlife Area Management Plan* and designated as a protected area in accordance with EFSC guidelines (ODFW 2008). The goals, objectives, and actions in this plan are derived following an ecosystem based management philosophy. This plan takes a strong habitat-based management approach with descriptions of wetland habitat types in plan goals and objectives. Of primary importance, most actions undertaken on this wildlife area are for the benefit of wildlife, and public use must be compatible with the wildlife resource. Numerous easements are associated with this wildlife area and include easements for pipeline and transmission lines, effluent treatment facilities, and wetland and restoration projects. Other agreements include cooperative management agreement between Rocky Mountain Elk Foundation and the ODFW, cooperative management agreement between the ODFW and City of La Grande, and sharecrop agreements for two permittees involving farming and grazing on the wildlife area.	• Variation S2-C2 • Mill Creek Alternative

Table Note: ODFW = Oregon Department of Fish and Wildlife

Applicant's Proposed Action Alternative

The 1-mile-wide study corridor for the Applicant's Proposed Action would not cross the Ladd Marsh Wildlife Area (Link 2-53).

Variations S2-A1, S2-A2, S2-B1, S2-B2, S2-C1, S2-E1, S2-E2, S2-F1, and S2-F2

The 1-mile-wide study corridor for these variations would not cross the Ladd Marsh Wildlife Area (Link 2-53).

Variation S2-C2

The Ladd Marsh Wildlife Area is within the 1-mile-wide study corridor for this variation (Link 2-53). Refer to Table 3-237 for information related to relevant and important values and management prescriptions for this area.

Glass Hill Alternative

The 1-mile-wide study corridor for the Glass Hill Alternative would not cross the Ladd Marsh Wildlife Area (Link 2-53).

Variations S2-D1 and S2-D2

The 1-mile-wide study corridor for these variations would not cross the Ladd Marsh Wildlife Area (Link 2-53).

Mill Creek Alternative

The Ladd Marsh Wildlife Area (Link 2-53) is within the 1-mile-wide study corridor for the Mill Creek Alternative. Refer to Table 3-237for information related to relevant and important values and management prescriptions for this area.

Segment 3—Baker Valley

Land Ownership, Utility Corridors, and Parallel Facilities

The study corridors in Segment 3 cross portions of two counties in Oregon and include a variety of ownership and management entities including federal, state, and local land-managing agencies. In addition, there are four incorporated cities, as well as numerous unincorporated communities, in the study corridors. Table 3-238 and Table 3-239 present the affected environment for land ownership and parallel facilities for the alternatives and route variations in Segment 3.

Table 3-238. Land Ownership within the 1-Mile-Wide Study Corridor for Segment 3—Baker Valley								
Alternative Route	Total Length (miles)	Land Ownership (acres)						
		Bureau of Land Management	Bureau of Reclamation	Tribal	Department of Defense	U.S. Forest Service	State	Private
Applicant's Proposed Action	55.2	9,764	0	0	0	0	0	25,872
Variation S3-A1	*12.4*	*768*	*0*	*0*	*0*	*0*	*0*	*7,614*
Variation S3-A2	*12.2*	*496*	*0*	*0*	*0*	*0*	*0*	*7,791*
Variation S3-B1	*13.9*	*3,492*	*0*	*0*	*0*	*0*	*0*	*5,859*
Variation S3-B2	*14.4*	*625*	*0*	*0*	*0*	*0*	*0*	*9,083*
Variation S3-B3	*14.7*	*701*	*0*	*0*	*0*	*0*	*0*	*9,227*
Variation S3-B4	*14.3*	*458*	*0*	*0*	*0*	*0*	*0*	*9,117*
Variation S3-B5	*14.0*	*359*	*0*	*0*	*0*	*0*	*0*	*8,993*
Variation S3-C1	*21.1*	*4,663*	*0*	*0*	*0*	*0*	*0*	*9,317*
Variation S3-C2	*21.7*	*4,265*	*0*	*0*	*0*	*0*	*0*	*10,047*
Variation S3-C3	*21.1*	*4,428*	*0*	*0*	*0*	*0*	*0*	*9,512*
Variation S3-C4	*21.4*	*4,446*	*0*	*0*	*0*	*0*	*0*	*9,675*
Variation S3-C5	*21.0*	*5,176*	*0*	*0*	*0*	*0*	*0*	*8,737*
Variation S3-C6	*24.7*	*7,362*	*0*	*0*	*0*	*0*	*0*	*8,926*
Flagstaff A	55.3	6,631	0	0	0	0	0	29,001
Timber Canyon	70.3	4,879	0	0	0	11,828	0	28,667
Flagstaff A – Burnt River Mountain	55.3	6,396	0	0	0	0	0	29,196
Flagstaff B	56.0	6,973	0	0	0	0	0	29,234
Flagstaff B – Burnt River West	55.7	7,214	0	0	0	0	0	28,834
Flagstaff B – Durkee	59.6	9,672	0	0	0	0	0	28,843

There is one type of designated utility corridor (West-Wide Energy Corridor) in the study corridors for Segment 3 (refer to MV-12). There are no designated RMP corridors in the study corridors for Segment 3.

Existing linear energy-related facilities in the study corridors include transmission lines and pipelines. Table 3-239 provides a description of the major transmission line rights-of-way (69-kV and greater) relevant to the study corridors in Segment 3. As noted, pipelines also are considered an existing linear facility, and are included in the analysis of linear facilities. However the available data for this analysis are not refined enough to report by name, diameter, and owner. Refer to MV-12 for general location of utility corridors.

Table 3-239. Parallel Facilities within the 1-Mile-Wide Study Corridor for Segment 3—Baker Valley				
Alternative Route	Total Length (miles)	Transmission Lines		
		Name	Voltage	Owner
Applicant's Proposed Action	55.2	Unknown	69 138 230	IPC IPC IPC
Variation S3-A1	*12.4*	*Unknown*	*230*	*IPC*
Variation S3-A2	*12.2*	*Unknown*	*230*	*IPC*
Variation S3-B1	*13.9*	*Unknown*	*69* *138* *230*	*IPC* *IPC* *IPC*
Variation S3-B2	*14.4*	*Unknown*	*69* *138* *230*	*IPC* *IPC* *IPC*
Variation S3-B3	*14.7*	*Unknown*	*69* *138* *230*	*IPC* *IPC* *IPC*
Variation S3-B4	*14.3*	*Unknown*	*69* *138* *230*	*IPC* *IPC* *IPC*
Variation S3-B5	*14.0*	*Unknown*	*69* *138* *230*	*IPC* *IPC* *IPC*
Variation S3-C1	*21.1*	*Unknown*	*69* *138*	*IPC* *IPC*
Variation S3-C2	*21.7*	*Unknown*	*69* *138*	*IPC* *IPC*
Variation S3-C3	*21.1*	*Unknown*	*69* *138*	*IPC* *IPC*
Variation S3-C4	*21.4*	*Unknown*	*69* *138*	*IPC* *IPC*
Variation S3-C5	*21.0*	*Unknown*	*69* *138*	*IPC* *IPC*
Variation S3-C6	*24.7*	*Unknown*	*69* *138*	*IPC* *IPC*
Flagstaff A	55.3	Unknown	69 138 230	*IPC* *IPC* IPC
Timber Canyon	70.3	Unknown	69 138 230	*IPC* *IPC* IPC
Flagstaff A – Burnt River Mountain	55.3	Unknown	69 138 230	*IPC* *IPC* IPC

Table 3-239. Parallel Facilities within the 1-Mile-Wide Study Corridor for Segment 3—Baker Valley				
Alternative Route	Total Length (miles)	Transmission Lines		
		Name	Voltage	Owner
Flagstaff B	56.0	Unknown	69 138 230	*IPC* *IPC* IPC
Flagstaff B – Burnt River West	55.7	Unknown	69 138 230	*IPC* *IPC* IPC
Flagstaff B – Durkee	59.6	Unknown	69 138 230	*IPC* *IPC* IPC
Table Note: IPC = Idaho Power Company				

Applicant's Proposed Action Alternative

The land ownership within the study corridor for the Applicant's Proposed Action, Variations S3-B1 and S3-C1 through C6 is predominately private and BLM.

The land ownership within the study corridor for Variations S3-A1, S3-A2, S3-B2, S3-B3, S3-B4, and S3-B5 is predominately private.

The land ownership within the study corridor for the Timber Canyon Alternative is predominately private USFS (Wallowa-Whitman National Forest), and some BLM.

The land ownership within the study corridor for the Flagstaff A Alternative, Flagstaff A – Burnt River Mountain Alternative, Flagstaff B Alternatives, Flagstaff B- Burnt River West Alternative and Flagstaff B – Durkee is predominately private and BLM.

Existing Land Use

Segment 3 begins in Baker County, approximately 3 miles east of North Powder and ends south of Dixie in Baker County. Table 3-240 presents acreages of existing land uses within the 1-mile-wide study corridor of the alternatives and route variations in Segment 3.

Table 3-240. Existing Land Use within the 1-Mile-Wide Study Corridor for Segment 3—Baker Valley							
Alternative Route	Total Acres	Existing Land Use (acres)					
		Agriculture	Bare Ground, Cliff, Talus	Developed/Disturbed	Forest/ Woodland	Grassland	Shrubland
Applicant's Proposed Action	35,633	1,023	578	535	479	3,138	29,880
Variation S3-A1	*8,379*	*304*	*8*	*23*	*68*	*404*	*7,572*
Variation S3-A2	*8,285*	*139*	*2*	*22*	*26*	*584*	*7,512*
Variation S3-B1	*9,351*	*0*	*13*	*85*	*235*	*562*	*8,456*
Variation S3-B2	*9,708*	*956*	*150*	*233*	*273*	*312*	*7,785*
Variation S3-B3	*9,928*	*1,010*	*153*	*251*	*195*	*298*	*8,021*
Variation S3-B4	*9,575*	*1,424*	*140*	*257*	*199*	*309*	*7,247*
Variation S3-B5	*9,352*	*1,302*	*138*	*237*	*277*	*328*	*7,070*
Variation S3-C1	*13,980*	*719*	*552*	*334*	*170*	*1,945*	*10,259*
Variation S3-C2	*14,312*	*954*	*596*	*569*	*188*	*2,085*	*9,919*
Variation S3-C3	*13,939*	*647*	*518*	*351*	*670*	*1,825*	*9,929*
Variation S3-C4	*14,121*	*511*	*564*	*354*	*725*	*1,881*	*10,085*
Variation S3-C5	*13,913*	*215*	*405*	*111*	*1,261*	*2,552*	*9,370*
Variation S3-C6	*16,288*	*280*	*608*	*106*	*1,913*	*2,378*	*11,003*
Flagstaff A	35,629	2,325	703	687	522	2,903	28,489
Timber Canyon	45,374	2,076	278	360	16,216	3,858	22,586
Flagstaff A – Burnt River Mountain	35,589	2,254	669	704	1,021	2,783	28,159
Flagstaff B	36,205	2,034	718	701	439	2,873	29,440
Flagstaff B – Burnt River West	36,046	1,365	564	477	1,487	3,660	28,492
Flagstaff B – Durkee	38,513	1,595	774	473	2,181	3,306	30,184
Table Note: This data is based on U.S. Geological Service GAP data.							

Table 3-241 presents existing structures within the 1-mile-wide study corridor of the alternatives and route variations in Segment 3.

Table 3-241. Existing Land Use Structures Crossed By or Adjacent to Alternative Routes and Route Variations in Segment 3—Baker Valley

Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Applicant's Proposed Action	1 extraction-mining 2 outstructures	1 residential	2 campground facilities 1 extraction-mining 4 outstructures 3 residential	3 campground facilities 2 communication facilities 5 extraction-mining 9 outstructures 3 residential 2 rest stops	3 buildings (non-residence) 2 communication facilities 6 extraction-mining 30 outstructures 12 residential 1 school/educational facilities
Variation S3-A1	*1 outstructure*	*0*	*0*	*1 extraction-mining*	*1 extraction-mining* *1 outstructure*
Variation S3-A2	*0*	*0*	*0*	*1 outstructure*	*1 extraction-mining* *1 outstructure*
Variation S3-B1	*0*	*0*	*1 extraction-mining*	*2 extraction-mining* *2 outstructures*	*2 buildings (non-residence)* *2 extraction-mining* *3 outstructures*
Variation S3-B2	*0*	*1 outstructure*	*1 building (non-residence)* *2 extraction-mining* *3 outstructures* *2 residential*	*4 buildings (non-residence)* *3 extraction-mining* *6 outstructures* *3 residential*	*5 buildings (non-residence)* *19 outstructures* *6 residential*
Variation S3-B3	*1 extraction-mining*	*1 outstructure*	*1 building (non-residence)* *2 extraction-mining* *4 outstructures* *2 residential*	*4 buildings (non-residence)* *2 extraction-mining* *10 outstructures* *5 residential*	*5 buildings (non-residence)* *15 outstructures* *5 residential*
Variation S3-B4	*1 extraction-mining* *1 outstructure*	*1 outstructure*	*2 buildings (non-residence)* *2 extraction-mining* *4 outstructures* *2 residential*	*3 buildings (non-residence)* *1 extraction-mining* *22 outstructures* *5 residential*	*6 buildings (non-residence)* *1 extraction-mining* *15 outstructures* *5 residential*
Variation S3-B5	*2 outstructures*	*1 outstructure*	*2 buildings (non-residence)* *2 extraction-mining* *2 outstructures* *2 residential*	*3 buildings (non-residence)* *2 extraction-mining* *6 outstructures* *3 residential*	*5 buildings (non-residence)* *1 extraction-mining* *28 outstructures* *6 residential*

Table 3-241. Existing Land Use Structures Crossed By or Adjacent to Alternative Routes and Route Variations in Segment 3—Baker Valley

Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Variation S3-C1	*1 extraction-mining* *1 outstructure*	*1 residential*	*2 campground facilities* *4 outstructures* *3 residential*	*3 campground facilities* *2 communication facilities* *2 extraction-mining* *7 outstructures* *3 residential* *2 rest stops*	*2 communication facilities* *2 extraction-mining* *23 outstructures* *10 residential* *1 school/educational facilities*
Variation S3-C2	*1 extraction-mining* *1 outstructure*	*1 residential*	*2 campground facilities* *1 communication facility* *11 outstructures* *6 residential*	*2 buildings (non-residence)* *3 campground facilities* *1 communication facility* *2 extraction-mining* *1 outstructure* *3 residential* *2 rest stops*	*5 buildings (non-residence)* *2 communication facilities* *2 extraction-mining* *30 outstructures* *13 residential* *2 school/educational facilities*
Variation S3-C3	*1 building (non-residence)* *2 extraction-mining* *1 outstructure*	*4 outstructures* *2 residential*	*2 campground facilities* *7 outstructures* *3 residential* *1 rest stop*	*3 campground facilities* *1 communication facility* *1 extraction-mining* *9 outstructures* *1 residential* *1 rest stop*	*4 buildings (non-residence)* *1 communication facility* *1 extraction-mining* *17 outstructures* *7 residential*
Variation S3-C4	*1 building (non-residence)* *2 extraction-mining* *1 outstructure*	*4 outstructures* *2 residential*	*2 campground facilities* *7 outstructures* *3 residential* *1 rest stop*	*3 campground facilities* *1 communication facility* *1 extraction-mining* *9 outstructures* *1 residential* *1 rest stop*	*3 buildings (non-residence)* *1 communication facility* *1 extraction-mining* *13 outstructures* *5 residential*
Variation S3-C5	*0*	*1 outstructure*	*0*	*3 outstructures* *2 residential*	*2 outstructures* *1 residential*
Variation S3-C6	*0*	*0*	*1 outstructure*	*1 other* *5 outstructures* *3 residential*	*0*

Table 3-241. Existing Land Use Structures Crossed By or Adjacent to Alternative Routes and Route Variations in Segment 3—Baker Valley					
Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Flagstaff A	1 extraction-mining 4 outstructures	1 outstructure 1 residential	2 buildings (non-residence) 2 campground facilities 2 extraction-mining 6 outstructures 5 residential	3 buildings (non-residence) 3 campground facilities 2 communication facilities 5 extraction-mining 13 outstructures 6 residential 2 rest stops	6 buildings (non-residence) 2 communication facilities 5 extraction-mining 55 outstructures 18 residential 1 school/educational facilities
Timber Canyon	3 buildings (non-residence) 1 communication facility 1 extraction-mining 2 outstructures 1 residential	1 outstructure 3 residential	5 buildings (non-residence) 2 campground facilities 15 outstructures 9 residential	7 buildings (non-residence) 3 campground facilities 2 extraction-mining 26 outstructures 10 residential 2 rest stops	11 buildings (non-residence) 2 communication facilities 1 extraction-mining 75 outstructures 26 residential 1 school/educational facilities 4 windmills
Flagstaff A – Burnt River Mountain	1 building (non-residence) 2 extraction-mining 4 outstructures	5 outstructures 2 residential	2 buildings (non-residence) 2 campground facilities 2 extraction-mining 9 outstructures 5 residential 1 rest stop	3 buildings (non-residence) 3 campground facilities 1 communication facility 4 extraction-mining 15 outstructures 4 residential 1 rest stop	10 buildings (non-residence) 1 communication facility 4 extraction-mining 49 outstructures 15 residential
Flagstaff B	2 extraction-mining 2 outstructure	1 outstructure 1 residential	1 building (non-residence) 2 campground facilities 2 extraction-mining 8 outstructures 5 residential	4 buildings (non-residence) 3 campground facilities 2 communication facilities 5 extraction-mining 17 outstructures 8 residential 2 rest stops	6 buildings (non-residence) 2 communication facilities 4 extraction-mining 42 outstructures 17 residential 1 school/educational facilities

Table 3-241. Existing Land Use Structures Crossed By or Adjacent to Alternative Routes and Route Variations in Segment 3—Baker Valley					
Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Flagstaff B – Burnt River West	1 extraction-mining	2 outstructures	1 building (non-residence) 2 extraction-mining 4 outstructures 2 residential	4 buildings (non-residence) 2 extraction-mining 14 outstructures 7 residential	6 buildings (non-residence) 2 extraction-mining 21 outstructures 8 residential
Flagstaff B – Durkee	1 extraction-mining 1 outstructure	1 outstructure	1 building (non-residence) 2 extraction-mining 5 outstructures 2 residential	4 buildings (non-residence) 3 extraction-mining 1 other 15 outstructures 8 residential	6 buildings (non-residence) 2 extraction-mining 19 outstructures 7 residential

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative in Segment 3 crosses unincorporated portions of Baker County, Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas predominantly composed of shrubland, interspersed with forest, and grasslands. Areas of agriculture and farming and developed land generally associated with highways and roads occur throughout the study corridor. The Applicant's Proposed Action Alternative crosses through rural residential areas near the unincorporated communities of Pleasant Valley, Durkee, Weatherby and Dixie. The 1-mile-wide study corridor for this alternative crosses approximately 1023 acres (or 3 percent) of lands associated with agricultural production and approximately 535 acres (or 2 percent) of developed lands (Table 3-240). The remaining 34,075 acres (or 96 percent) in this study corridor are undeveloped shrubland, forest, and grass lands. Approximately 92 structures, including 19 residences, occur within 0.5 mile of the reference centerline of this alternative. One residence is located within the proposed right-of-way, and 3 structures (2 outstructures, 1 structure associated with mining) are crossed by the reference centerline (Table 3-241).

Variation S3-A1

Variation S3-A1 is approximately 12.3 miles long, and is located approximately 3.5 miles east of the community of North Powder along Links 3-4 and 3-22 of the Applicant's Proposed Action Alternative. Existing land uses within the study corridor for this variation can generally be characterized as vacant undeveloped areas predominantly composed of shrubland, interspersed with forest, and grasslands. Locations of agriculture and farming and developed land generally associated with mining occur within this study corridor. Four structures are located within 0.5 mile of the reference centerline of this variation, and one outstructure is crossed by the reference centerline.

Variation S3-A2

Variation S3-A2 is similar in length and existing land use characteristics to Variation S3-A1. Three structures are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S3-B1

Variation S3-B1 is approximately 2.9 miles long, and is located approximately 5.9 miles east of the Baker City along Links 3-26 and 3-28 of the Applicant's Proposed Action Alternative. Existing land uses within the study corridor for this variation can generally be characterized as vacant undeveloped areas predominantly composed of shrubland, interspersed with forest, grasslands, and developed land generally associated with agriculture and mining within this study corridor. Approximately 12 structures are located within 0.5 mile of the reference centerline of this variation. One of these structures is associated with the NHOTIC. Variation S3-B1 crosses approximately 0.5 mile east of the NHOTIC. No structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S3-B2

Variation S3-B2 is approximately 14.4 miles long, and is located approximately 3.3 miles east of Baker City. Within the study corridor for this variation existing land use characteristics are similar to Variation S3-B1 except for a higher proportion of agricultural lands and rural residences east of Baker City. Approximately 55 structures, including 11 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation one outstructure is located within the proposed right-of-way. No structures are crossed by the reference centerline.

Variation S3-B3

Variation S3-B3 is approximately 14.8 miles long, and is located approximately 3.1 miles east of Baker City. Within the study corridor for this variation existing land use characteristics are similar to Variation S3-B1 except for a higher proportion of agricultural lands and rural residences east of Baker City. Approximately 57 structures, including 12 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation one outstructure is located within the proposed right-of-way, and one mining structure is crossed by the reference centerline.

Variation S3-B4

Variation S3-B4 is approximately 14.2 miles long, and is located approximately 3.1 miles east of Baker City. Within the study corridor for this variation existing land use characteristics are similar to Variation S3-B1 except for a higher proportion of agricultural lands and rural residences east of Baker City. Approximately 71 structures, including 12 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation one outstructure is located within the proposed right-of-way, and one outstructure and one mining structure are crossed by the reference centerline.

Variation S3-B5

Variation S3-B5 is approximately 13.9 miles long, and is located approximately 3.3 miles east of Baker City. Within the study corridor for this variation existing land use characteristics are similar to Variation S3-B1 except for a higher proportion of agricultural lands and rural residences east of Baker City.

Approximately 65 structures, including 11 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation 1 outstructure is located within the proposed right-of-way, and 2 oustructures are crossed by the reference centerline.

Variation S3-C1

Variation S3-C1 is approximately 21.1 miles long, and is located generally parallel to Highway 30 approximately 1.7 miles northeast of Durkee, approximately 0.5 mile east of Weatherby, along Links 3-58, 3-78, 3-80, 3-82, 3-86, 3-88, 3-92 of the Applicant's Proposed Action Alternative. Existing land uses within the study corridor for this variation can generally be characterized as vacant undeveloped areas predominantly composed of shrubland, and grassland interspersed with forest, and talus slopes. Agricultural lands, rural, residential, and other developed land generally associated with roads also are located within this study corridor. Approximately 69 structures, including 17 residences, 2 rest stops, 5 campground structures, and 1 educational facility, are located within 0.5 mile of the reference centerline of this variation. Along this variation 1 residence is located within the proposed right-of-way and 2 structures (1 mining structure, 1 outstructure) are crossed by the reference centerline.

Variation S3-C2

Variation S3-C2 is approximately 21.7 miles long, and is similar to S3-C1. Within the study corridor for this variation existing land use characteristics are similar to Variation S3-C1 except for a higher proportion of agricultural lands east of Durkee. Approximately 91 structures, including 23 residences, 2 rest stops, 5 campground structures, and 2 educational facilities, are located within 0.5 mile of the reference centerline of this variation. Along this variation 1 residence is located within the proposed right-of-way and 2 structures (1 mining structure, 1 outstructure) are crossed by the reference centerline.

Variation S3-C3

Variation S3-C3 is approximately 21.0 miles long, and is similar to S3-C1. Within the study corridor for this variation existing land use characteristics are similar to Variation S3-C1. Approximately 69 structures, including 13 residences, 2 rest stops, and 5 campground structures, are located within 0.5 mile of the reference centerline of this variation. Along this variation 2 residences and 4 oustructures are located within the proposed right-of-way and 4 structures (two mining structures, one outstructure, and one non-residential building) are crossed by the reference centerline. Approximately 3.5 miles southeast of Durkee, Link 3-72 of the reference centerline crosses a narrow portion of the Ash Grove Cement Plant mining facilities.

Variation S3-C4

Variation S3-C4 is approximately 21.3 miles long, and is similar to existing land use characteristics to S3-C1 with the exception of where this variation crosses less agricultural land and more forested lands west of Durkee. Approximately 62 structures, including 11 residences, 5 campground structures, and 2 rest stops, are located within 0.5 mile of the reference centerline of this variation. Along this variation 2 residences and 4 outstructures are located within the proposed right-of-way and 4 structures (2 mining structures, 1 outstructure, and 1 non-residential building) are crossed by the reference centerline.

Approximately 3.5 miles southeast of Durkee, Link 3-72 of the reference centerline crosses a narrow portion of the Ash Grove Cement Plant mining facilities.

Variation S3-C5

Variation S3-C5 is approximately 21.0 miles long, and is similar to existing land use characteristics to S3-C1 with the exception of where this variation crosses less agricultural land and more forested lands west of Durkee. Approximately nine structures, including three residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation one outstructure is located within the proposed right-of-way. No structures are crossed by the reference centerline.

Variation S3-C6

Variation S3-C6 is approximately 24.7 miles long, and is similar to existing land use characteristics to S3-C1 with the exception of where this variation crosses less agricultural lands more forested and shrublands west of Durkee. Approximately 10 structures, including 3 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way, or are crossed by the reference centerline.

Flagstaff A Alternative

The Flagstaff A Alternative in Segment 3 crosses unincorporated portions of Baker County, Oregon. Within the study corridor for this alternative, existing land use characteristics are similar to the Applicant's Proposed Action Alternative and Variation S3-B2. The 1-mile-wide study corridor for this alternative crosses approximately 2,325 acres (or 7 percent) of lands associated with agricultural production and approximately 687 acres (or 2 percent) of developed lands (Table 3-240). The remaining 32,617 acres (or 92 percent) in this study corridor are undeveloped shrubland, and grasslands. Approximately 145 structures occur within 0.5 mile of the reference centerline of this alternative. Of these, 1 residence is located within the proposed right-of-way, and 5 structures (4 outstructures and 1 structure associated with mining) are crossed by the reference centerline (Table 3-241).

Timber Canyon Alternative

The Timber Canyon Alternative in Segment 3 crosses unincorporated portions of Union and Baker counties in Oregon and is the longest of the Segment 3 alternatives. Within the study corridor for this alternative, existing land use characteristics are similar to the Applicant's Proposed Action Alternative except for the increase of approximately 15,700 acres of forested lands, and an increase of approximately 1,000 acres of agricultural lands. The 1-mile-wide study corridor for this alternative crosses approximately 2,076 acres (or 5 percent) of lands associated with agricultural production and approximately 360 acres (or 1 percent) of developed lands (Table 3-240). The remaining 42,938 acres (or 95 percent) in this study corridor are undeveloped shrubland, forested lands, and grasslands. Approximately 213 structures occur within 0.5 mile of the reference centerline of this alternative. Of these, 4 structures (3 residences and 1 outstructure) are within the proposed right-of-way and 8 structures, including 1 residence, are crossed by the reference centerline (Table 3-241).

Flagstaff A – Burnt River Mountain Alternative

The Flagstaff A – Burnt River Mountain Alternative in Segment 3 crosses unincorporated portions of Baker County, Oregon. Within the study corridor for this alternative, existing land use characteristics are similar to the Applicant's Proposed Action Alternative and Variation S3-B2. The 1-mile-wide study corridor for this alternative crosses approximately 2,254 acres (or 6 percent) of lands associated with agricultural production and approximately 704 acres (or 2 percent) of developed lands (Table 3-240). The remaining 32,631 acres (or 92 percent) in this study corridor are undeveloped shrubland, grasslands, forest woodland. Approximately 145 structures occur within 0.5 mile of the reference centerline of this alternative, including 26 residences, 2 campground structures, and 2 rest stops. Of these, 7 structures (2 residences and 5 outstructures) are located within the proposed right-of-way, and 7 structures (4 outstructures, 2 structure associated with mining, and 1 non-residential building) are crossed by the reference centerline (Table 3-241).

Flagstaff B Alternative

The Flagstaff B Alternative in Segment 3 crosses unincorporated portions of Baker County, Oregon. Within the study corridor for this alternative, existing land use characteristics are similar to the Applicant's Proposed Action Alternative and Variation S3-B2. The 1-mile-wide study corridor for this alternative crosses approximately 2,034 acres (or 6 percent) of lands associated with agricultural production and approximately 701 acres (or 2 percent) of developed lands (Table 3-240). The remaining 33,470 acres (or 92 percent) in this study corridor are undeveloped shrubland, grasslands, bare ground, and forest woodland. Approximately 137 structures occur within 0.5 mile of the reference centerline of this alternative, including 31 residences, 2 rest stops, and 1 educational facility. Of these, 2 structures (1 residence, 1 oustructure) are located within the proposed right-of-way, and 4 structures (2 outstructures and 2 structures associated with mining) are crossed by the reference centerline (Table 3-241).

Flagstaff B – Burnt River West Alternative

The Flagstaff B – Burnt River West Alternative in Segment 3 crosses unincorporated portions of Baker County, Oregon. Within the study corridor for this alternative, existing land use characteristics are similar to the Applicant's Proposed Action Alternative except for an increase of forested lands. The 1-mile-wide study corridor for this alternative crosses approximately 1,365 acres (or 4 percent) of lands associated with agricultural production and approximately 477 acres (or 2 percent) of developed lands (Table 3-240). The remaining 34,204 acres (or 95 percent) in this study corridor are undeveloped shrubland, grasslands, forest woodland and bare ground. Approximately 76 structures occur within 0.5 mile of the reference centerline of this alternative, including 17 residences. Of these, 1 outstructure is located within the proposed right-of-way, and 2 structures (1 outstructure, 1 structure associated with mining) are crossed by the reference centerline (Table 3-241).

Flagstaff B – Durkee

The Flagstaff B – Durkee Alternative in Segment 3 crosses unincorporated portions of Baker County, Oregon. Within the study corridor for this alternative, existing land use characteristics are similar to the Applicant's Proposed Action Alternative except for an increase of the amount of agricultural and

forested lands. The 1-mile-wide study corridor for this alternative crosses approximately 1,595 acres (or 4 percent) of lands associated with agricultural production and approximately 473 acres (or 2 percent) of developed lands (Table 3-240). The remaining 36,445 acres (or 95 percent) in this study corridor are undeveloped shrubland, grasslands, forest woodland. Approximately 78 structures occur within 0.5 mile of the reference centerline of this alternative, including 17 residences. Of these, 1 outstructure is located within the proposed right-of-way, and 2 structures (1 outstructure and 1 structure associated with mining) are crossed by the reference centerline (Table 3-241).

Timber Management

Table 3-242 presents the affected environment for timber management for the alternatives and route variations in Segment 3.

Table 3-242. Timber Management within the 1-Mile-Wide Study Corridor for Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Aspen	Forest-Other	Juniper and Mahogany Woodland	Mixed Conifer Forest	Total
Applicant's Proposed Action	55.2	0.0	0.0	0.0	0.0	0.0
Variation S3-A1	*12.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-A2	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-B1	*13.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-B2	*14.4*	*0.0*	*0.0*	*0.3*	*0.0*	*0.3*
Variation S3-B3	*14.7*	*0.0*	*0.0*	*0.3*	*0.0*	*0.3*
Variation S3-B4	*14.3*	*0.0*	*0.0*	*0.3*	*0.0*	*0.3*
Variation S3-B5	*14.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.3*
Variation S3-C1	*21.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-C2	*21.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-C3	*21.1*	*0.0*	*0.0*	*0.7*	*0.0*	*0.7*
Variation S3-C4	*21.4*	*0.0*	*0.0*	*0.7*	*0.0*	*0.7*
Variation S3-C5	*21.0*	*0.0*	*0.0*	*0.4*	*0.9*	*1.3*
Variation S3-C6	*24.7*	*0.5*	*0.0*	*0.9*	*1.5*	*2.9*
Flagstaff A	55.3	0.0	0.0	0.3	0.0	0.3
Timber Canyon	70.3	0.3	0.0	0.9	19.4	20.6
Flagstaff A – Burnt River Mountain	55.3	0.0	0.0	1.0	0.0	1.0
Flagstaff B	56.0	0.0	0.0	0.3	0.0	0.3
Flagstaff B – Burnt River West	55.7	0.0	0.0	0.7	0.9	1.6
Flagstaff B – Durkee	59.6	0.5	0.0	1.2	1.5	3.2

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative in Segment 3 does not cross forested lands.

Other Alternative Routes and Variations in Segment 3

Forested lands in Segment 3 are primarily located in northern and southern Baker County, on private lands and the Wallowa-Whitman National Forest. The timber resources, where present, are similar

among all other alternative routes and variations in Segment 3 (Table 3-242), with the exception of the Timber Canyon Alternative route which is discussed separately.

Timber Canyon Alternative

The Timber Canyon Alternative crosses approximately 20.6 miles of forested lands, primarily Mixed Conifer Forest. The Timber Canyon Alternative crosses timber management areas in the Wallowa-Whitman National Forest, as well as small areas of forest on private lands adjacent to the national forest boundary.

Fire Management

This section presents information on recent fire history, using available data dating from 2000 through 2015. All other aspects of the affected environment for fire management are considered to be common to all alternatives. Refer to Section 3.2.3 for additional information on fire ecology.

Applicant's Proposed Action Alternative

Near Baker City, the Applicant's Proposed Action Alternative crosses an area affected by several historical fires that burned in or near the same location. These were the 2001 White Swan Fire (1,485 acres), 2007 Pleasant Valley Fire (2,904 acres), and the 2014 Radio Tower Fire (3,359 acres). Additionally, the large 2015 Cornet Windy Ridge Fire burned 103,906 acres near the Applicant's Proposed Action Alternative, up to Interstate 84 in the vicinity of the other fires listed.

Variations S3-A1 and S3-A2 and S3-C1 through S3-C5

No recently burned areas are crossed by these variations.

Variation S3-B1

This variation crosses the same previously burned areas as the Applicant's Proposed Action Alternative.

Variations S3-B2 through S3-B5

These variations cross the previously burned areas discussed under the Applicant's Proposed Action Alternative, but in slightly different locations.

Variation S3-C6

Variation S3-C6 crosses near an area burned by the small 2000 Sunday Hill Fire (204 acres).

Flagstaff A Alternative

The Flagstaff A Alternative crosses the previously burned areas discussed under the Alternative, but in a slightly different location.

Timber Canyon Alternative

No recently burned areas are crossed by this alternative.

Flagstaff A – Burnt River Mountain Alternative

No recently burned areas are crossed by this alternative.

Flagstaff B Alternative

The Flagstaff B Alternative crosses the previously burned areas discussed under the Applicant's Proposed Action Alternative , but in a slightly different location.

Flagstaff B – Burnt River West Alternative

No recently burned areas are crossed by this alternative.

Flagstaff B – Durkee

The Flagstaff B – Durkee Alternative crosses near an area burned by the small 2000 Sunday Hill Fire (204 acres).

Zoning

The following is an inventory of the generalized zoning classifications for each alternative and route variation in Segment 3. Refer to Section 3.2.6.4 for a description of the generalized zoning types, and MV-14 for their locations.

Applicant's Proposed Action Alternative

Approximately 99 percent of the Applicant's Proposed Action Alternative crosses lands zoned for Agriculture and approximately 1 percent zoned for Industrial.

Variation S3-A1 and S3-A2, S3-B2 through S3-B5, and S3-C1

Approximately 100 percent of these variations cross lands zoned for Agriculture.

Variation S3-B1

Approximately 98 percent of the Variation S3-B1 crosses lands zoned for Agriculture and 2 percent crosses lands zoned for Industrial.

Variation S3-C2

Approximately 99 percent of the Variation S3-C2 crosses lands zoned for Agriculture, and 1 percent cross lands zoned for Commercial.

Variations S3-C3 and S3-C4

Approximately 96 percent of these variations cross lands zoned for Agriculture and 4 percent cross lands zoned for Industrial.

Variation S3-C6

Approximately 94 percent of the Variation S3-C6 crosses lands zoned for Agriculture, 5 percent for Timber/Grazing and 1 percent cross lands zoned for Industrial.

Flagstaff A Alternative

Approximately 100 percent of the Flagstaff A Alternative crosses lands zoned for Agriculture.

Timber Canyon Alternative

Approximately 54 percent of the Timber Canyon Alternative crosses lands zoned for Agriculture and approximately 24 percent zoned for Federal. Other zones crossed include Grazing and Timber/Grazing.

Flagstaff A – Burnt River Mountain Alternative

Approximately 99 percent of the Flagstaff A – Burnt River Mountain Alternative crosses lands zoned for Agriculture and approximately 1 percent zoned for Industrial.

Flagstaff B Alternative

Approximately 100 percent of the Flagstaff B Alternative crosses lands zoned for Agriculture.

Flagstaff B – Burnt River West Alternative

Approximately 99 percent of the Flagstaff A – Burnt River Mountain Alternative crosses lands zoned for Agriculture and approximately 1 percent zoned for Industrial.

Flagstaff B – Durkee

Approximately 98 percent of the Flagstaff B – Durkee Alternative crosses lands zoned for Agriculture and approximately 2 percent zoned for Timber/Grazing.

Military Training

Table 3-243 presents the affected environment for military training in special-use airspace for the alternatives and route variations in Segment 3.

Table 3-243. Military Training within the 1-Mile-Wide Study Corridor for Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Military Training Routes (miles crossed)
Applicant's Proposed Action	55.2	18.4
Variation S3-A1	*12.4*	*0.0*
Variation S3-A2	*12.2*	*0.0*
Variation S3-B1	*13.9*	*0.0*
Variation S3-B2	*14.4*	*0.0*
Variation S3-B3	*14.7*	*0.0*
Variation S3-B4	*14.3*	*0.0*
Variation S3-B5	*14.0*	*0.0*
Variation S3-C1	*21.1*	*18.4*
Variation S3-C2	*21.7*	*19.0*
Variation S3-C3	*21.1*	*18.5*
Variation S3-C4	*21.4*	*18.8*
Variation S3-C5	*21.0*	*17.0*
Variation S3-C6	*24.7*	*16.4*
Flagstaff A	55.3	18.4
Timber Canyon	70.3	13.6
Flagstaff A – Burnt River Mountain	55.3	18.5
Flagstaff B	56.0	18.4
Flagstaff B – Burnt River West	55.7	17.0
Flagstaff B – Durkee	59.6	16.4

Applicant's Proposed Action Alternative

The Applicant's Proposed Action crosses through training routes within special-use airspace south of Baker City. Military training routes are aerial corridors used solely by military aviation for training flights. The routes are the result of a joint venture between the FAA and the DoD to provide for high-speed, low-level military activities. Military Training Routes are divided in to instrument routes, and visual routes. Unless noted on the air navigation chart, aircraft may fly as low as 100 to 110 feet above ground level in the B2H Project area along these routes. Special-use airspace in Segment 3 is used by Navy and other military organizations and is not limited to NWSTF Boardman operations. Map 3-3 shows the location of MTRs in the B2H Project area.

The existing environment pertaining to military training in special-use airspace for Variation S3-C1, S3-C2, S3-C3, S3-C4, S3-C5, S3-C5, and S3-C6 would be the same as the Applicant's Proposed Action Alternative. No other route variations are located within any existing or proposed MTRs.

Flagstaff A Alternative

The existing environment pertaining to military training routes in special-use airspace for the Flagstaff A Alternative would be the same as the Applicant's Proposed Action Alternative.

Timber Canyon Alternative

The existing environment pertaining to military training in special-use airspace for the Timber Canyon Alternative would be less, but similar to the Applicant's Proposed Action Alternative.

Flagstaff A – Burnt River Mountain Alternative

The existing environment pertaining to military training routes in special-use airspace for the Flagstaff A – Burnt River Mountain Alternative would slightly more, but similar to the Applicant's Proposed Action Alternative.

Flagstaff B Alternative

The existing environment pertaining to military training in special-use airspace would slightly less, but similar to the Applicant's Proposed Action Alternative.

Flagstaff B – Burnt River West Alternative

The existing environment pertaining to military training in special-use airspace would similar but slightly less than the Applicant's Proposed Action Alternative.

Flagstaff B – Durkee

The existing environment pertaining to military training in special-use airspace would be similar but slightly less than the Applicant's Proposed Action Alternative.

Specially Designated Areas

Specially designated areas are lands managed by federal or state agencies to protect values and land uses unique to an area. These areas typically require more intensive management emphasis than is applied to surrounding public lands. Specially designated areas are administratively designated. Administrative designations present in the B2H Project area are ACECs and RNAs. Other types of

specially designated areas present in the B2H Project area include designations administered and managed by state natural resource and wildlife departments. These entities include missions to protect habitat, provide recreation and educational opportunities. These include Wildlife Areas.

Congressionally designated areas are described in Section 3.2.11; lands with wilderness characteristics are described in Section 3.2.10.

Area of Critical Environmental Concern/Research Natural Area

The BLM designates ACECs where special management attention is needed to protect, and prevent irreparable damage to, important historical, cultural, and scenic values, fish, or wildlife resources or other natural systems or processes to protect human life and safety from natural hazards (BLM 1988).

There is one ACEC in Segment 3. The Oregon Trail ACEC (multiple parcels), is managed under the current 1989 Baker Field Office RMP. This ACEC is located within the 1 mile analysis area but is not within the 250 foot right-of-way. Refer to map MV-15.

Wildlife Areas

There are no wildlife areas present in the alternative route study corridors in Segment 3. Table 3-244 presents the specially designated areas and their relevant and important values and management prescriptions for the alternatives and route variations in Segment 3.

Table 3-244. Specially Designated Areas within the 1-Mile-Wide Study Corridor for Segment 3—Baker Valley

Relevant and Important Values	Management Prescriptions Relevant to Utility Rights-of-Way	Relevant Alternative Routes[1]
Areas of Critical Environmental Concern		
Oregon Trail ACEC (Multiple Parcels: Chimney Creek, Straw Ranch I, Straw Ranch II, White Swan, Flagstaff Hill, California Gulch, Echo Meadows)		
Historic values and the development and maintenance of the proposed National Historic Oregon Trail Interpretive Center. Resources within this area will be managed to maintain and enhance a developed Interpretive Center and ACEC.	New uses incompatible with maintain visual qualities or providing public interpretation will be excluded in a 0.5 mile corridor. Rights-of-way will avoid the Oregon Trail. Avoidance area for rights-of-way. No new road access will be developed.	• Applicant's Proposed Action • Variations S3-B1 through S3-B5 • Variation S3-C1 through S3-C6 • Flagstaff A • Flagstaff A – Burnt River Mountain • Timber Canyon • Flagstaff B • Flagstaff B – Burnt River West • Flagstaff B – Durkee
Research Natural Areas		
There are no RNAs present in the alternative route study corridors in Segment 3.		
Wildlife Areas		
There are no Wildlife Areas present in the alternative route study corridors in Segment 3.		

Applicant's Proposed Action Alternative

The Oregon Trail ACEC (Flagstaff Hill, Straw Ranch I, and Chimney Creek parcels) is within the 1-mile-wide study corridor for the Applicant's Proposed Action Alternative, but is not within the 250 foot right-

of-way. Refer to Table 3-244 for information related to relevant and important values and management prescriptions for these areas.

Variations S3-A1 and S3-A2

There are no existing specially designated areas within the 1-mile wide study corridor for these variations.

Variations S3-B1 through S3-B5

The Oregon Trail ACEC (Flagstaff Hill parcel) is within the 1 mile analysis area but is not within the 250 foot right-of-way for these variations.

Variation S3-C1 through S3-C6

The Oregon Trail ACEC (Chimney Creek parcel) is within the 1-mile-wide study corridor for these variations. This ACEC is located within the 1 mile analysis area but is not within the 250 foot right-of-way.

Flagstaff A Alternative

The affected environment for the Flagstaff A Alternative is the same as that described for the Applicant's Proposed Action Alternative.

Timber Canyon Alternative

The Oregon Trail ACEC (Chimney Creek parcel) is within the 1 mile analysis area but is not within the 250 foot right-of-way for the Timber Canyon Alternative.

Flagstaff A – Burnt River Mountain Alternative

The affected environment for the Flagstaff A – Burnt River Mountain Alternative is the same as that described for the Applicant's Proposed Action Alternative.

Flagstaff B Alternative

The affected environment for the Flagstaff B Alternative is the same as that described for the Applicant's Proposed Action Alternative.

Flagstaff B – Burnt River West Alternative

The affected environment for the Flagstaff B – Burnt River West Alternative is the same as that described for the Applicant's Proposed Action Alternative.

Flagstaff B – Durkee

The affected environment for the Flagstaff B – Burnt River West Alternative is the same as that described for the Applicant's Proposed Action Alternative.

SEGMENT 4—BROGAN

Land Ownership, Utility Corridors, and Parallel Facilities

The study corridors in Segment 4 cross portions of two counties in Oregon and include a variety of ownership and management entities, including federal, state, and local land-managing agencies. There are no incorporated cities in the Segment 4 study corridor however many unincorporated communities

do exist within the study corridor. Table 3-245 and Table 3-246 present the affected environment for land ownership and parallel facilities for the alternative routes and route variations in Segment 4.

Table 3-245. Land Ownership within the 1-Mile-Wide Study Corridor for Segment 4—Brogan

Alternative Route	Total Length (miles)	Land Ownership (acres)						
		Bureau of Land Management	Bureau of Reclamation	Tribal	Department of Defense	U.S. Forest Service	State	Private
Applicant's Proposed Action	40.1	12,308	0	0	0	0	1,823	12,101
Variation S4-A1	*5.9*	*603*	*0*	*0*	*0*	*0*	*0*	*3,691*
Variation S4-A2	*6.0*	*692*	*0*	*0*	*0*	*0*	*0*	*3,588*
Variation S4-A3	*6.1*	*744*	*0*	*0*	*0*	*0*	*0*	*3,572*
Tub Mountain South	40.5	15,637	23	0	0	0	0	10,644
Willow Creek	34.6	10,374	0	0	0	0	0	12,252

There is one West-Wide Energy Utility Corridor and one RMP corridor in the study corridors for Segment 4 (refer to MV-12).

Existing linear energy-related facilities in the study corridors include transmission lines and pipelines. Table 3-246 provides a description of the major transmission line rights-of-way (69-kV and greater) relevant to the study corridors in Segment 4. As noted, pipelines also are considered an existing linear facility, and are included in the analysis of linear facilities. However the available data for this analysis are not refined enough to report by name, diameter, and owner. Refer to MV-12 for general location of utility corridors.

Table 3-246. Parallel Facilities within the 1-Mile-Wide Study Corridor for Segment 4—Brogan

Alternative Route	Total Length (miles)	Transmission Lines		
		Name	Voltage (kilovolt)	Owner
Applicant's Proposed Action	40.1	Unknown Unknown	69 138	IPC IPC
Variation S4-A1	*5.9*	*Unknown*	*69* *138*	*IPC* *IPC*
Variation S4-A2	*6.0*	*Unknown*	*69* *138*	*IPC* *IPC*
Variation S4-A3	*6.1*	*Unknown*	*69* *138*	*IPC* *IPC*
Tub Mountain South	40.5	*Unknown*	*69* *138*	*IPC* *IPC*
Willow Creek	34.6	*Unknown*	*69* *138*	*IPC* *IPC*

Table Notes: IPC = Idaho Power Company

Applicant's Proposed Action Alternative

Table 3-245 and Table 3-246 present the land ownership and parallel facilities for the Applicant's Proposed Action Alternative. The land ownership within the study corridor for this alternative is predominately private and BLM. However, the Applicant's Proposed Action does also cross Oregon Department of State Lands in Baker and Malheur counties.

The land ownership within the study corridor for Variation S4-A1, Variation S4-A2, and Variation S4-A3 is predominately private.

The land ownership within the study corridor for the Tub Mountain Alternative and the Willow Creek Alternative is predominately BLM and private.

Existing Land Use

Segment 4 begins south of Dixie in Baker County and ends south of Jamieson in Malheur County. Table 3-247 presents acreages of existing land uses within the 1-mile-wide study corridor of the alternatives and route variations in Segment 4.

Table 3-247. Existing Land Use within the 1-Mile-Wide Study Corridor for Segment 4—Brogan

Alternative Route	Total Acres	Existing Land Use (acres)					
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland
Applicant's Proposed Action	26,227	101	1,045	111	57	11,365	13,548
Variation S4-A1	*4,294*	*72*	*54*	*94*	*10*	*1,290*	*2,774*
Variation S4-A2	*4,281*	*108*	*39*	*162*	*13*	*1,234*	*2,724*
Variation S4-A3	*4,316*	*80*	*60*	*119*	*13*	*1,248*	*2,797*
Tub Mountain South	26,287	2,210	1,148	665	19	11,331	10,915
Willow Creek	22,625	1,291	1,030	171	38	8,005	12,091

Table Note: This data is based on U.S. Geological Service GAP data.

Table 3-248 presents existing structures within the 1-mile-wide study corridor of the alternatives and route variations in Segment 4.

Table 3-248. Existing Land Use Structures Crossed By or Adjacent to Alternatives and Route Segment 4—Brogan					
Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Applicant's Proposed Action	1 windmill	1 windmill	1 outstructure 1 windmill	1 extraction-mining 4 outstructures 2 residential 1 windmill	1 building (non-residence) 1 flood control facility 1 other 3 residential 1 windmill
Variation S4-A1	*0*	*0*	*0*	*3 outstructures* *2 residential*	*1 building (non-residence)* *1 other*
Variation S4-A2	*0*	*0*	*0*	*3 outstructures* *2 residential*	*1 building (non-residence)* *1 other*
Variation S4-A3	*0*	*0*	*0*	*0*	*1 building (non-residence)* *1 other* *3 outstructures* *2 residential*
Tub Mountain South	0	0	2 buildings (non-residence) 2 communication facilities 11 outstructures 4 residential	6 buildings (non-residence) 1 communication facility 24 outstructures 6 residential	12 buildings (non-residence) 1 communication facility 2 other 34 outstructures 19 residential
Willow Creek	1 windmill	0	1 other 1 outstructure 1 windmill	10 outstructures 4 residential	6 buildings (non-residence) 3 other 26 outstructures 3 residential 2 windmills

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative in Segment 4 crosses unincorporated portions of Baker and Malheur counties in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed primarily of shrubland, grassland, and bare ground. A small concentration of agriculture and farming occur near the unincorporated community of Dixie and where this alternative crosses Willow Creek, approximately 3 miles north of the unincorporated community of Brogan. The 1-mile-wide study corridor for this alternative crosses approximately 101 acres (less than 1 percent) of lands associated with agricultural production and approximately 111 acres (less than 1 percent) of developed lands (Table 3-247). The remaining 26,015 acres (or 99 percent) in this study corridor are primarily undeveloped shrublands, and grasslands.

Approximately 19 structures occur within 0.5 mile of the reference centerline of this alternative. One windmill is located within the proposed right-of-way and another windmill is crossed by the reference centerline (Table 3-248).

Variation S4-A1

Variation S4-A1 is approximately 5.9 miles long, and is located approximately 0.3 mile south of the community of Dixie along Links 4-1, 4-10, 4-11, and 4-13 of the Applicant's Proposed Action Alternative. The existing land use within the study corridor for this variation can generally be characterized as vacant undeveloped areas comprising forest, woodland, and shrublands with agricultural land uses near Dixie. Approximately seven structures, including two residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variations S4-A2 and S4-A3

The existing land uses located within the study corridor for Variations S4-A2 and S4-A3 are similar to those described for Variation S4-A1.

Tub Mountain South Alternative

The Tub Mountain South Alternative in Segment 4 crosses unincorporated portions of Baker and Malheur counties in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed primarily of shrubland, grassland, and concentrations of agriculture and rural residences near where this alternative crosses Willow Creek, approximately 4.4 miles southeast of the unincorporated community of Willow Creek. The 1-mile-wide study corridor for this alternative crosses approximately 2,210 acres (or 8 percent) of lands associated with agricultural production and approximately 665 acres (or 3 percent) of developed lands (Table 3-247). The remaining 23,412 acres (or 89 percent) in this study corridor are primarily undeveloped shrublands, grasslands, and bare ground. Approximately 124 structures, including 29 residences, occur within 0.5 mile of the reference centerline of this alternative, and no structures are located within the proposed right-of-way or are crossed by the reference centerline (Table 3-248).

Willow Creek Alternative

The Willow Creek Alternative in Segment 4 crosses unincorporated portions of Baker and Malheur counties in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed primarily of shrubland, grassland, and concentrations of agriculture and rural residences near where this alternative crosses Willow Creek, approximately 1.1 miles northwest of the unincorporated community of Jamieson. The 1-mile-wide study corridor for this alternative crosses approximately 1,291 acres (or 6 percent) of lands associated with agricultural production and approximately 171 acres (or 1 percent) of developed lands (Table 3-247). The remaining 21,163 acres (or 94 percent) in this study corridor are primarily undeveloped shrublands, grasslands, and bare ground. Approximately 58 structures, including 7 residences, occur within 0.5 mile of the reference centerline of this alternative. One windmill is crossed by the reference centerline, and no structures are located within the proposed right-of-way (Table 3-248).

Timber Management

No forested vegetation, and, thus, no timber resources, are present on any alternative route or variation in Segment 4.

Fire Management

This section presents information on recent fire history, using available data dating from 2000 through 2015. All other aspects of the affected environment for fire management are considered to be common to all alternatives. Refer to Section 3.2.3 for additional information on fire ecology.

Applicant's Proposed Action Alternative

Near Huntington, the Applicant's Proposed Action crosses an area affected by several historical fires that burned in or near the same location. These were the 2001 Cavanaugh 2 Fire (4,103 acres), 2005 Farewell Bend Fire (4,302 acres), 2008 Lime Fire (350 acres), and the 2015 Lime Hill Fire (12,024 acres). Near Brogan, the Applicant's Proposed Action crosses an area affected by the 2014 Kitten Complex Fire (22,700 acres).

Variation S4-A1

This variation crosses previously burned areas near Huntington that are the same as those crossed by the Applicant's Proposed Action Alternative.

Variation S4-A2

This variation crosses previously burned areas near Huntington similar to the Applicant's Proposed Action Alternative.

Variation S4-A3

This variation crosses previously burned areas near Huntington similar to the Applicant's Proposed Action Alternative.

Tub Mountain South Alternative

The Tub Mountain South Alternative crosses areas affected by the 2006 Mud Springs Fire (14,631 acres) and the 2000 Jackson Fire (80,054 acres).

Willow Creek Alternative

The Willow Creek Alternative crosses areas affected by the 2006 Mud Springs Fire (14,631 acres) and the 2000 Jackson Fire (80,054 acres).

Zoning

The following is an inventory of the generalized zoning classifications for each alternative and route variation in Segment 4. Refer to Section 3.2.6.4 for a description of the generalized zoning types, and MV-14 for their locations.

Applicant's Proposed Action Alternative

Approximately 68 percent of the Applicant's Proposed Action Alternative crosses lands zoned for Grazing and approximately 32 percent zoned for Agriculture.

Variations S4-A1 through S4-A3

Approximately 100 percent of these variations cross crosses lands zoned for Agriculture.

Tub Mountain South Alternative

Approximately 65 percent of the Tub Mountain South Alternative crosses lands zoned for Grazing and approximately 35 percent zoned for Agriculture.

Willow Creek Alternative

Approximately 65 percent of the Willow Creek Alternative crosses lands zoned for Grazing and approximately 35 percent zoned for Agriculture.

Military Training

Table 3-249 presents the affected environment for existing land use for the alternatives and route variations in Segment 4.

Table 3-249. Military Training within the 1-Mile-Wide Study Corridor for Segment 4—Brogan

Alternative Route	Total Length (miles)	Military Training Routes (miles)
Applicant's Proposed Action	40.1	4.6
Variation S4-A1	*5.9*	*0.0*
Variation S4-A2	*6.0*	*0.0*
Variation S4-A3	*6.1*	*0.0*
Tub Mountain South	40.5	0.0
Willow Creek	34.6	0.0

Applicant's Proposed Action Alternative

The Applicant's Proposed Action crosses through training routes northwest of Vale. Military training routes are aerial corridors used solely by military aviation for training flights within special-use airspace. The routes are the result of a joint venture between the FAA and the DoD to provide for high-speed, low-level military activities. Military training routes are divided in to instrument routes, and visual routes. Unless noted on the air navigation chart, aircraft may fly as low as 100 to 110 feet above ground level in the B2H Project area along these routes. Special-use airspace in Segment 4 is used by Navy and other military organizations and is not limited to NWSTF Boardman operations. Map 3-3 shows the location of MTRs in the B2H Project area.

Variations S4-A1 through S4-A3

These variations are not located within any existing or proposed MTRs.

Tub Mountain South Alternative

The Tub Mountain South Alternative is not located within any existing or proposed MTRs.

Willow Creek Alternative

The Willow Creek Alternative is not located within any existing or proposed MTRs.

Specially Designated Areas

Specially designated areas are lands managed by federal or state agencies to protect values and land uses unique to an area. These areas typically require more intensive management emphasis than is applied to surrounding public lands. Specially designated areas are administratively designated. Administrative designations present in the B2H Project area are ACECs and RNAs. Other types of specially designated areas present in the B2H Project area include designations administered and managed by state natural resource and wildlife departments. These entities include missions to protect habitat, provide recreation and educational opportunities. These include Wildlife Areas.

Congressionally designated areas are described in Section 3.2.11; lands with wilderness characteristics are described in Section 3.2.10.

Area of Critical Environmental Concern

The BLM designates ACECs where special management attention is needed to protect, and prevent irreparable damage to, important historical, cultural, and scenic values, fish, or wildlife resources or other natural systems or processes to protect human life and safety from natural hazards (BLM 1988). The Oregon National Historic Trail ACEC is located within Segment 4, refer to Table 3-250 for further detail. This ACEC is located within the 1 mile analysis area but is not within the 250 foot right-of-way.

Research Natural Areas

There are no RNAs present in the alternative route study corridors in Segment 4.

Wildlife Areas

There are no Wildlife Areas present in the alternative route study corridors in Segment 4.

Table 3-250 presents the specially designated areas and their relevant and important values and management prescriptions for the alternatives and route variations in Segment 4.

Table 3-250. Specially Designated Areas within the 1-Mile-Wide Study Corridor for Segment 4—Brogan

Name of Specially Designated Area	Relevant and Important Values	Management Prescriptions Relevant to Utility Rights-of-Way	Relevant Alternative Routes
Areas of Critical Environmental Concern			
Oregon Trail ACEC – Birch Creek parcel Birch Creek parcel Tub Mountain parcel	Historic and scenic values	Avoidance area for rights-of-way; granting rights-of-way (surface) within area should be avoided, but rights-of-way may be granted if there is minimal conflict with identified resource values and impacts can be mitigated.	• Tub Mountain South
Research Natural Areas			
There are no RNAs present in the alternative route study corridors in Segment 4.			
Wildlife Areas			
There are no Wildlife Areas present in the alternative route study corridors in Segment 4.			

Applicant's Proposed Action Alternative

The 1-mile-wide study corridor for the Applicant's Proposed Action would not cross the Oregon National Historic Trail ACEC.

Variations S4-A1 through S4-A3

The affected environment for these variations is the same as that described for the Applicant's Proposed Action Alternative.

Tub Mountain South Alternative

The Oregon National Historic Trail ACEC – Birch Creek and Tub Mountain parcels are within the 1-mile-wide study corridor but is not within the 250 foot right-of-way for the Tub Mountain South Alternative (MV-15). Refer to Table 3-250 for information related to relevant and important values and management prescriptions for this area.

Willow Creek Alternative

The affected environment for the Willow Creek Alternative is the same as that described for the Applicant's Proposed Action Alternative.

SEGMENT 5—MALHEUR

Land Ownership, Utility Corridors, and Parallel Facilities

The study corridors in Segment 5 cross portions of one county in Oregon and include a variety of ownership and management entities, including federal, state, and local land-managing agencies. There are no incorporated cities in the Segment 5 study corridor however many unincorporated communities do exist within the study corridor. Table 3-251, Table 3-252, and Table 3-253 present the affected environment for land ownership, utility corridors, and parallel facilities for the alternatives and route variations in Segment 5.

Table 3-251. Land Ownership within the 1-Mile-Wide Study Corridor for Segment 5—Malheur

Alternative Route	Total Length (miles)	Land Ownership (acres)						
		Bureau of Land Management	Bureau of Reclamation	Tribal	Department of Defense	U.S. Forest Service	State	Private
Applicant's Proposed Action	40.4	18,853	368	0	0	0	0	7,098
Variation S5-A1	*7.4*	*1,887*	*0*	*0*	*0*	*0*	*0*	*3,341*
Variation S5-A2	*7.4*	*4,532*	*0*	*0*	*0*	*0*	*0*	*697*
Variation S5-B1	*2.5*	*1,568*	*144*	*0*	*0*	*0*	*0*	*420*
Variation S5-B2	*2.8*	*1,211*	*67*	*0*	*0*	*0*	*0*	*991*
Malheur S	43.5	24,258	239	0	0	0	0	3,791
Malheur A	43.1	23,643	594	0	0	0	0	3,764

The SEORMP corridor and the West-Wide Energy Corridor exist in the study corridors for Segment 5. Table 3-252 presents the findings for designated utility corridors in the study corridors for the alternatives and route variations in Segment 5.

Table 3-252. Utility Corridors within the 1-Mile-Wide Study Corridor for Segment 5—Malheur

Alternative Route	Length (miles)	Resource Management Plan Corridor	West-Wide Energy Corridor
Applicant's Proposed Action	40.4	SEORMP Corridor	Multimodal, designated 1500 foot width
Variation S5-A1	*7.4*	*None present*	*None present*
Variation S5-A2	*7.4*	*None present*	*None present*
Variation S5-B1	*2.5*	*SEORMP Corridor*	*None present*
Variation S5-B2	*2.8*	*SEORMP Corridor*	*None present*
Malheur S	43.5	SEORMP Corridor	Multimodal, designated 1500 foot width
Malheur A	43.1	SEORMP Corridor	Multimodal, designated 1500 foot width

Existing linear energy-related facilities in the study corridors include transmission lines and pipelines. Table 3-253 provides a description of the major transmission line rights-of-way (69-kV and greater) relevant to the study corridors in Segment 5. As noted, pipelines also are considered an existing linear facility, and are included in the analysis of linear facilities. However the available data for this analysis are not refined enough to report by name, diameter, and owner. Refer to MV-12 for general information regarding utility corridor location.

Table 3-253. Parallel Facilities within the 1-Mile-Wide Study Corridor for Segment 5—Malheur

Alternative Route	Total Length (miles)	Transmission Lines		
		Name	Voltage (kilovolt)	Owner
Applicant's Proposed Action	40.4	Unknown Existing H-frame Burns to Midpoint	69 115 500	IPC Unknown IOU
Variation S5-A1	*7.4*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S5-A2	*7.4*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S5-B1	*2.5*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S5-B2	*2.8*	*Not applicable*	*Not applicable*	*Not applicable*
Malheur S	43.5	Unknown Existing H-frame Burns to Midpoint	69 115 500	IPC Unknown IOU
Malheur A	43.1	Unknown Existing H-frame Burns to Midpoint	69 115 500	IPC Unknown IOU

Table Notes:
IPC = Idaho Power Company
IOU = Investor Owner Utility

Applicant's Proposed Action Alternative

The land ownership within the study corridor for the Applicant's Proposed Action Alternative, Variation S5-A1, Variation S5-B2, Malheur S Alternative and Malheur A Alternative is predominately BLM and private.

The land ownership within the study corridor for Variation S5-A2 and Variation S5-B1 is predominately BLM.

Existing Land Use

Segment 5 begins south of Jamieson in Malheur County and ends 3 miles west of the Oregon-Idaho Border. Table 3-254 presents acreages of existing land uses within the 1-mile-wide study corridor of the alternatives and route variations in Segment 5.

Table 3-254. Existing Land Use within the 1-Mile-Wide Study Corridor for Segment 5—Malheur

Alternative Route	Total Acres	Existing Land Use (acres)					
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland
Applicant's Proposed Action	26,294	517	5,178	56	79	7,788	12,676
Variation S5-A1	*5,228*	*68*	*480*	*0*	*0*	*3,086*	*1,594*
Variation S5-A2	*5,229*	*2*	*777*	*0*	*0*	*2,470*	*1,980*
Variation S5-B1	*2,126*	*244*	*244*	*26*	*23*	*275*	*1,315*
Variation S5-B2	*2,254*	*628*	*196*	*52*	*14*	*197*	*1,167*
Malheur S	28,257	128	5,793	47	76	7,137	15,076
Malheur A	27,963	112	5,489	62	84	6,660	15,556
Table Notes: This data is based on U.S. Geological Service GAP data.							

Table 3-255 presents existing structures within the 1-mile-wide study corridor of the alternatives and route variations in Segment 5.

Table 3-255. Existing Land Use Structures Crossed By or Adjacent to Alternatives and Route Variations in Segment 5—Malheur

Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Applicant's Proposed Action	1 extraction-mining	0	1 other 3 outstructures	1 flood control facility 1 other	1 extraction-mining 1 other 12 outstructures 2 residential
Variation S5-A1	*0*	*0*	*1 outstructure*	*1 other*	*0*
Variation S5-A2	*0*	*0*	*0*	*0*	*0*

Table 3-255. Existing Land Use Structures Crossed By or Adjacent to Alternatives and Route Variations in Segment 5—Malheur					
Alternative Route	**Crossed by the Reference Centerline**	**Within the Right-of-way**	**Distance from Reference Centerline**		
			0.125-mile	**0.126 to 0.25-mile**	**0.26 to 0.5-mile**
Variation S5-B1	*0*	*0*	*0*	*0*	*7 outstructures* *1 residential*
Variation S5-B2	*0*	*0*	*2 outstructures*	*6 outstructures* *2 residential*	*1 building (non-residence)* *1 outstructure* *1 residential*
Malheur S	0	0	1 other 1 outstructure	1 building (non-residence) 1 flood control facility 2 outstructures 1 residential	1 other 2 outstructures
Malheur A	0	1 outstructure	1 campground facility 1 other 7 outstructures	1 flood control facility 1 residential	1 other 4 outstructures

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative in Segment 5 crosses unincorporated portions of Malheur County in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed primarily of shrubland, grassland, bare ground, cliffs and talus slopes. Small concentrations of agriculture and farming land uses occur where this alternative crosses the Malheur and Owyhee rivers. The 1-mile-wide study corridor for this alternative crosses approximately 517 acres (or 2 percent) of lands associated with agricultural production and approximately 56 acres (less than 1 percent) of developed lands (Table 3-254). The remaining 25,721 acres (or 98 percent) in this study corridor are primarily undeveloped shrublands, grasslands, bare ground, cliffs and talus slopes. Approximately 23 structures, including 2 residences, occur within 0.5 mile of the reference centerline of this alternative, and a structure associated with mining is crossed by the reference centerline (Table 3-255).

Variation S5-A1

Variation S5-A1 is approximately 7.4 miles long, and is located along Link 5-15 of the Applicant's Proposed Action Alternative. The existing land use within the study corridor for this variation can generally be characterized as vacant undeveloped areas composed of grassland, shrubland, and bare ground, cliffs and talus slopes. This variation crosses scattered agricultural fields approximately 8.9 miles southwest of the City of Vale. Approximately two structures are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S5-A2

The existing land uses located within the study corridor for Variation S5-A2 are similar to those described for Variation S5-A1 except it avoids the agricultural fields southwest of the City of Vale.

Variation S5-B1

Variation S5-B1 is approximately 2.6 miles long, and is located along Links 5-50, 5-55, 5-65 of the Applicant's Proposed Action Alternative. The existing land use within the study corridor for this variation can generally be characterized as vacant undeveloped areas composed primarily of grassland, shrubland, and bare ground, cliffs and talus slopes. This variation crosses near a concentration of agricultural fields and rural residences approximately 4.9 miles west of the City of Adrian. Approximately eight structures, including one residence, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S5-B2

The existing land uses located within the study corridor for Variation S5-B2 are similar to those described for Variation S5-B1. Approximately 13 structures, including 3 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Malheur S Alternative

The Malheur S Alternative in Segment 5 crosses unincorporated portions of Malheur County in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed primarily of shrubland, grassland, bare ground, cliffs and talus slopes. A small concentration of agriculture and farming land uses occur where this alternative crosses Malheur River. The 1-mile-wide study corridor for this alternative crosses approximately 128 acres (less than one percent) of lands associated with agricultural production and approximately 47 acres (less than 1 percent) of developed lands (Table 3-254). The remaining 28,082 acres (or 99 percent) in this study corridor are primarily undeveloped shrublands, grasslands, bare ground, cliffs and talus slopes. Approximately 10 structures, including 1 residence, occur within 0.5 mile of the reference centerline of this alternative, and no structures are located within the proposed right-of-way or are crossed by the reference centerline (Table 3-255).

Malheur A Alternative

The Malheur A Alternative in Segment 5 crosses unincorporated portions of Malheur County in Oregon. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed primarily of shrubland, grassland, bare ground, cliffs and talus slopes. A small concentration of agriculture and farming land uses occur where this alternative crosses Malheur River. The 1-mile-wide study corridor for this alternative crosses approximately 112 acres (less than one percent) of lands associated with agricultural production and approximately 62 acres (less than 1 percent) of developed lands (Table 3-254). The remaining 27,790 acres (or 99 percent) in this study corridor are primarily undeveloped shrublands, grasslands, bare ground, cliffs and talus slopes.

Approximately 17 structures, including 1 residence, occur within 0.5 mile of the reference centerline of this alternative, and one outstructure is located within the proposed right-of-way. No structures in this alternative are crossed by the reference centerline (Table 3-255).

Timber Management

No forested vegetation, and, thus, no timber resources, are present on any alternative route or variation in Segment 5.

Fire Management

This section presents information on recent fire history, using available data dating from 2000 through 2015. All other aspects of the affected environment for fire management are considered to be common to all alternatives. Refer to Section 3.2.3 for additional information on fire ecology.

Applicant's Proposed Action Alternative

In Segment 5, the Applicant's Proposed Action Alternative crosses areas affected by several historical fires, including a number of relatively small fires. Larger previously burned areas crossed in Segment 5 include the 2000 Wildhorse Spring Fire (1,874 acres), the 2011 Vines Hill Fire (1,226 acres), the 2005 Double Mountain Fire (22,112 acres), and the 2013 Owyhee Fire 46,511 acres).

Variations S5-A1 and S5-A2

These variations cross the area affected by the 2005 Double Mountain Fire (22,112 acres).

Variations S5-B1 and S5-B2

No recently burned areas are crossed by these variations.

Malheur S Alternative

The Malheur S Alternative crosses areas affected by the same fires as the Applicant's Proposed Action Alternative, but in different locations for the areas affected by the Double Mountain and Owyhee fires.

Malheur A Alternative

The Malheur A Alternative crosses areas affected by the same fires as the Applicant's Proposed Action Alternative, but in different locations for the areas affected by the Double Mountain and Owyhee fires.

Zoning

The following is an inventory of the generalized zoning classifications for each alternative and route variation in Segment 5. Refer to Section 3.2.6.4 for a description of the generalized zoning types, and MV-14 for their locations.

Applicant's Proposed Action Alternative

Approximately 95 percent of the Applicant's Proposed Action Alternative crosses lands zoned for Grazing and approximately 5 percent zoned for Agriculture.

Variation S5-A1

Approximately 81 percent of the Variation S5-A1 crosses lands zoned for Grazing and approximately 19 percent zoned for Agriculture.

Variations S5-A2 and S5-B2

Approximately 100 percent of Variations S5-A2 and S5-B2 cross lands zoned for Grazing.

Variation S5-B2

Approximately 50 percent of the Variation S5-B2 crosses lands zoned for Grazing and approximately 50 percent zoned for Agriculture.

Malheur S Alternative

Approximately 99 percent of the Malheur S Alternative crosses lands zoned for Grazing and approximately 1 percent zoned for Agriculture.

Malheur A Alternative

Approximately 99 percent of the Malheur A Alternative crosses lands zoned for Grazing and approximately 1 percent zoned for Agriculture.

Military Training

Table 3-256 presents the affected environment for military training in special-use airspace for the alternatives and route variations in Segment 5.

Table 3-256. Military Training within the 1-Mile-Wide Study Corridor for Segment 5—Malheur

Alternative Route	Total Length (miles)	Military Training Routes (miles crossed)
Applicant's Proposed Action	40.4	37.9
Variation S5-A1	*7.4*	*7.4*
Variation S5-A2	*7.4*	*7.4*
Variation S5-B1	*2.5*	*2.5*
Variation S5-B2	*2.8*	*2.8*
Malheur S	43.5	26.5
Malheur A	43.1	26.1

Applicant's Proposed Action Alternative

The Applicant's Proposed Action crosses through training routes within special-use airspace. Military training routes are aerial corridors within special-use airspace used solely by military aviation for training flights. The routes are the result of a joint venture between the FAA and the DoD to provide for high-speed, low-level military activities. Military training routes are divided in to instrument routes, and visual routes. Unless noted on the air navigation chart, aircraft may fly as low as 100 to 110 feet above ground level in the B2H Project area along these routes. Special-use airspace in Segment 5 is used by Navy and other military organizations and is not limited to NWSTF Boardman operations. Map 3-3 shows the location of MTRs in the B2H Project area.

Variation S5-A1

Variation S5-A1 crosses through crosses through training routes within special-use airspace. Therefore, the existing environment pertaining to military training in special-use airspace would be the same as the Applicant's Proposed Action Alternative.

Variation S5-A2

Variation S5-A2 crosses through crosses through training routes within special-use airspace. Therefore, the existing environment pertaining to military training in special-use airspace would be the same as the Applicant's Proposed Action Alternative.

Variation S5-B1

Variation S5-B1 crosses through crosses through training routes within special-use airspace. Therefore, the existing environment pertaining to military training in special-use airspace would be the same as the Applicant's Proposed Action Alternative.

Variation S5-B2

Variation S5-B2 crosses through crosses through training routes within special-use airspace. Therefore, the existing environment pertaining to military training in special-use airspace would be the same as the Applicant's Proposed Action Alternative.

Malheur S Alternative

The Malheur S Alternative crosses through training routes within special-use airspace. Therefore, the existing environment pertaining to military training in special-use airspace would slightly less (9 miles) but similar to the Applicant's Proposed Action Alternative.

Malheur A Alternative

The Malheur A Alternative crosses through MTRs associated with NWSTF Boardman and other military. Therefore, the existing environment pertaining to military training in special-use airspace would be slightly less (9 miles) but similar to the Applicant's Proposed Action Alternative.

Specially Designated Areas

Specially designated areas are lands managed by federal or state agencies to protect values and land uses unique to an area. These areas typically require more intensive management emphasis than is applied to surrounding public lands. Specially designated areas are administratively designated. Administrative designations present in the B2H Project area are ACECs and RNAs. Other types of specially designated areas present in the B2H Project area include designations administered and managed by state natural resource and wildlife departments. These entities include missions to protect habitat, provide recreation and educational opportunities. These include Wildlife Areas.

Potential Congressional designations are described in Section 3.2.11; lands with wilderness characteristics are described in Section 3.2.10.

Area of Critical Environmental Concern

The BLM designates ACECs where special management attention is needed to protect, and prevent irreparable damage to, important historical, cultural, and scenic values, fish, or wildlife resources or other natural systems or processes to protect human life and safety from natural hazards (BLM 1988). The Owyhee River Below the Dam ACEC is located within the 1-mile analysis area, but is not within the 250 foot right-of-way.

Research Natural Areas

There are no RNAs present in the alternative route study corridors in Segment 5.

Wildlife Areas

There are no Wildlife Areas present in the alternative route study corridors in Segment 5.

Table 3-257 presents the specially designated areas and their relevant and important values and management prescriptions for the alternatives and route variations in Segment 5.

Table 3-257. Specially Designated Areas within the 1-Mile-Wide Study Corridor for Segment 5—Malheur

Relevant and Important Values	Management Prescriptions Relevant to Utility Rights-of-Way	Relevant Alternative Routes
Areas of Critical Environmental Concern		
Owyhee River Below the Dam Area of Critical Environmental Concern		
High scenic values of diverse landscape elements in a substantially natural setting, a special status plant species (Mulford's milkvetch), the rare presence of a black cottonwood gallery in a riverine system, and the combined wildlife values of diverse habitat types supporting a large number of wildlife species and important migratory corridor for neotropical birds.	Avoidance area for rights-of-way; granting rights-of-way (surface) within area should be avoided, but rights-of-way may be granted if there is minimal conflict with identified resource values and impacts can be mitigated.	• Applicant's Proposed Action • Variations S5-B1 and S5-B2 • Malheur S Alternative • Malheur A Alternative
Research Natural Areas		
There are no Research Natural Areas present in the alternative route study corridors in Segment 5.		
Wildlife Areas		
There are no Wildlife Areas present in the alternative route study corridors in Segment 5.		

Applicant's Proposed Action Alternative

The Owyhee River Below the Dam ACEC is within the 1-mile-wide study corridor, but is not within the 250 foot right-of-way, for the Applicant's Proposed Action Alternative. Refer to Table 3-257for information related to relevant and important values and management prescriptions for this area.

Variations S5-A1 and S5-A2

The 1-mile-wide study corridor for these variations would not cross the Owyhee River Below the Dam ACEC.

Variations S5-B1 and S5-B2

The affected environment for these variations is the same as that described for the Applicant's Proposed Action Alternative.

Malheur S Alternative

The Owyhee River Below the Dam ACEC is within the 1-mile wide study corridor and the 250 foot right-of -way for the Malheur S Alternative(Link 5-30).

Malheur A Alternative

The Owyhee River Below the Dam ACEC is within the 1-mile wide study corridor and the 250 foot right-of-way for the Malheur A Alternative (Link 5-35).

SEGMENT 6—TREASURE VALLEY

Land Ownership, Utility Corridors, and Parallel Facilities

The study corridors in Segment 6 cross portions of one county in Oregon and one county in Idaho including a variety of ownership and management entities (i.e., federal, state, and local land-managing agencies). There are no incorporated cities in the Segment 6 study corridor however many unincorporated communities do exist within the study corridor. Table 3-258, Table 3-259, and Table 3-260 presents the affected environment for land ownership, utility corridors, and parallel facilities for the alternatives and route variations in Segment 6.

Table 3-258. Land Ownership within the 1-Mile-Wide Study Corridor for Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Land Ownership (acres)						
		Bureau of Land Management	Bureau of Reclamation	Tribal	Department of Defense	U.S. Forest Service	State	Private
Applicant's Proposed Action	28.0	13,678	59	0	0	0	1,766	2,860
Variation S6-A1	*9.3*	*5,116*	*34*	*0*	*0*	*0*	*128*	*1,177*
Variation S6-A2	*8.9*	*3,916*	*72*	*0*	*0*	*0*	*232*	*1,971*
Variation S6-B1	*14.4*	*7,138*	*0*	*0*	*0*	*0*	*1,638*	*913*
Variation S6-B2	*14.1*	*7,077*	*0*	*0*	*0*	*0*	*1,860*	*579*

Both RMP corridors and utility corridor exist in the study corridors for Segment 6. Table 3-259 presents the findings for designated utility corridors in the study corridors for the alternatives and route variations in Segment 6.

Table 3-259. Utility Corridors within the 1-Mile-Wide Study Corridor for Segment 6—Treasure Valley			
Alternative Route	**Length (miles)**	**Resource Management Plan Corridor**	**West-Wide Energy Corridor**
Applicant's Proposed Action	28.0	Approved Resource Management Plan (RMP) Amendments/Record of Decision (ROD) for Designation of Energy Corridors on Bureau of Land Management (BLM) Administered Lands	Multimodal, designated, 3,000 foot width
Variation S6-A1	*9.3*	*Approved RMP Amendments/ROD for Designation of Energy Corridors on BLM Administered Lands*	*Multimodal, designated, 3,000 foot width*
Variation S6-A2	*8.9*	*Approved RMP Amendments/ROD for Designation of Energy Corridors on BLM Administered Lands*	*Multimodal, designated, 3,000 foot width*
Variation S6-B1	*14.4*	*Approved RMP Amendments/ROD for Designation of Energy Corridors on BLM Administered Lands*	*Multimodal, designated, 3,000 foot width*
Variation S6-B2	*14.1*	*Approved RMP Amendments/ROD for Designation of Energy Corridors on BLM Administered Lands*	*Multimodal, designated, 3,000 foot width*

Existing linear energy-related facilities in the study corridors include transmission lines and pipelines. Table 3-260 provides a description of the major transmission line rights-of-way (69-kV and greater) relevant to the study corridors in Segment 6. As noted, pipelines also are considered an existing linear facility, and are included in the analysis of linear facilities. However, the available data for this analysis are not refined enough to report by name, diameter, and owner. Refer to MV-12 for general information regarding utility corridor locations.

Table 3-260. Parallel Facilities within the 1-Mile-Wide Study Corridor for Segment 6—Treasure Valley				
Alternative Route	**Total Length (miles)**	**Transmission Line**		
		Name	**Voltage (kilovolt)**	**Owner**
Applicant's Proposed Action	28.0	Unknown Unknown Unknown Burns to Midpoint	69 230 500 500	IPC IPC IPC IOU
Variation S6-A1	*9.3*	*Burns to Midpoint*	*500*	*IOU*
Variation S6-A2	*8.9*	*Burns to Midpoint*	*500*	*IOU*
Variation S6-B1	*14.4*	*Unknown* *Burns to Midpoint*	*69* *500*	*IPC* *IOU*
Variation S6-B2	*14.1*	*Unknown* *Burns to Midpoint*	*69* *500*	*IPC* *IOU*
Table Notes: IOU = Investor Owner Utility IPC = Idaho Power Company				

Applicant's Proposed Action Alternative

The land ownership within the study corridor for the Applicant's Proposed Action is predominately BLM.

The land ownership within the study corridor for Variation S6-A1 and Variation S6-A2 is predominately BLM and private. The land ownership within the study corridor for Variation S6-B1 and Variation S6-B2 is predominately BLM and state.

Existing Land Use

Segment 5 begins 3 miles west of the Oregon-Idaho Border and ends at the Hemingway Substation in Owyhee County, Idaho. Table 3-261 presents acreages of existing land uses within the 1-mile-wide study corridor of the alternatives and route variations in Segment 6.

Table 3-261. Existing Land Use within the 1-Mile-Wide Study Corridor for Segment 6—Treasure Valley

Alternative Route	Total Acres	Existing Land Use (acres)					
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland
Applicant's Proposed Action	18,359	410	605	159	92	7,451	9,642
Variation S6-A1	*6,455*	*38*	*34*	*9*	*8*	*3,397*	*2,969*
Variation S6-A2	*6,191*	*241*	*32*	*47*	*13*	*2,737*	*3,120*
Variation S6-B1	*9,685*	*202*	*455*	*100*	*45*	*3,261*	*5,623*
Variation S6-B2	*9,517*	*86*	*788*	*100*	*43*	*2,737*	*5,763*

Table Notes: This data is based on U.S. Geological Service GAP data.

Table 3-262 presents existing structures within the 1-mile-wide study corridor of the alternatives and route variations in Segment 6.

Table 3-262. Existing Land Use Structures Crossed By or Adjacent to Alternatives and Route Variations in Segment 6—Treasure Valley

Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Applicant's Proposed Action	0	0	2 buildings (non-residence) 1 extraction-mining 3 outstructures	1 cemetery 1 extraction-mining 5 outstructures 2 residential	7 buildings (non-residence) 1 extraction-mining 14 outstructures 9 residential
Variation S6-A1	*0*	*0*	*1 outstructure*	*1 residential*	*1 building (non-residence)* *1 extraction-mining* *4 outstructures* *2 residential*

Table 3-262. Existing Land Use Structures Crossed By or Adjacent to Alternatives and Route Variations in Segment 6—Treasure Valley					
Alternative Route	Crossed by the Reference Centerline	Within the Right-of-way	Distance from Reference Centerline		
			0.125-mile	0.126 to 0.25-mile	0.26 to 0.5-mile
Variation S6-A2	*1 building (non-residence)* *2 outstructures*	*0*	*1 extraction-mining* *1 outstructure* *1 residential*	*0*	*3 buildings (non-residence)* *13 outstructures* *6 residential*
Variation S6-B1	*0*	*0*	*1 building (non-residence)* *1 extraction-mining*	*1 extraction-mining* *5 outstructures* *1 residential*	*6 buildings (non-residence)* *8 outstructures* *2 residential*
Variation S6-B2	*0*	*0*	*5 outstructures* *1 residential*	*1 extraction-mining*	*2 buildings (non-residence)* *4 outstructures* *2 residential*

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative in Segment 6 crosses unincorporated portions of Malheur County in Oregon and Owyhee County in Idaho. Existing land uses within the study corridor can generally be characterized as vacant undeveloped areas composed primarily of shrubland, grassland, bare ground, cliffs and talus slopes. Dense agricultural fields, farms and rural residences are scattered approximately 1 mile north of this alternative as it roughly parallels the Snake River in Owyhee County; however, the 1-mile-wide study corridor for this alternative crosses approximately 410 acres (or 2 percent) of lands associated with agricultural production and approximately 159 acres (or 1 percent) of developed lands (Table 3-261). Land Use within the 1-mile-wide study corridor). The remaining 17,790 acres (or 97 percent) in this study corridor are primarily undeveloped shrublands, grasslands, bare ground, cliffs and talus slopes. Approximately 46 structures, including 11 residences, occur within 0.5 mile of the reference centerline of this alternative. The B2H Project terminates at the Hemingway Substation approximately 1 mile southwest of the unincorporated community of Wilson.

Variation S6-A1

Variation S6-A1 is approximately 9.3 miles long, and is located along Links 6-10 and 6-20 of the Applicant's Proposed Action Alternative for Segment 6. The existing land use within the study corridor for this variation can generally be characterized as vacant undeveloped areas composed of grassland, shrubland, and bare ground, cliffs and talus slopes. Approximately 10 structures, including 3 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S6-A2

The existing land uses located within the study corridor for Variation S6-A2 are similar to those described for Variation S6-A1. However, Variation S6-A2 crosses more agricultural lands, and approximately 28 structures, including 7 residences, are located within 0.5 mile of the reference

centerline of this variation. One non-residential building and two outstructures are crossed by the reference centerline.

Variation S6-B1

Variation S6-B1 is approximately 14.4 miles long, and is located along Link 6-25 of the Applicant's Proposed Action Alternative for Segment 6. The existing land use within the study corridor for this variation can generally be characterized as vacant undeveloped areas composed of shrubland, grassland, and bare ground, cliffs and talus slopes. Approximately 25 structures, including 3 residences, are located within 0.5 mile of the reference centerline of this variation. Along this variation no structures are located within the proposed right-of-way or are crossed by the reference centerline.

Variation S6-B2

The existing land uses located within the study corridor for Variation S6-B2 are similar to those described for Variation S6-B1. However, Variation S6-B2 crosses less agricultural lands, and fewer structures are located within 0.5 mile of the reference centerline.

Timber Management

Table 3-263 presents the affected environment for timber management for the alternatives and route variations in Segment 6. No forested vegetation, and, thus, no timber resources, are present on any alternative route or variation in Segment 6 with one area of exception located along Variation S6-B2.

Table 3-263. Timber Management within the 1-Mile-Wide Study Corridor for Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Aspen	Forest-Other	Juniper and Mahogany Woodland	Mixed Conifer Forest	Total
Applicant's Proposed Action	28.0	0.0	0.0	0.0	0.0	0.0
Variation S6-A1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S6-A2	*8.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S6-B1	*14.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S6-B2	*14.1*	*0.0*	*0.0*	*0.1*	*0.0*	*0.1*

Applicant's Proposed Action Alternative and Variations S6-A1, S6-A2, S6-B1, and S6-B2

There is no forested vegetation crossed by the Applicant's Proposed Action Alternative or Variations S6-A1, S6-A2, and S6-B1.

Variation S6-B2

Variation S6-B2 crosses 0.1 mile of forested vegetation. This location is not identified as a commercially harvestable timber resource.

Fire Management

This section presents information on recent fire history, using available data dating from 2000 through 2015. All other aspects of the affected environment for fire management are considered to be common to all alternatives. Refer to Section 3.2.3 for additional information on fire ecology.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action in Segment 6 crosses areas affected by the 2015 Soda Fire (283,400 acres). Several smaller fires burned previously in the area affected by the Soda Fire as well.

Variations S6-A1, S6-A2, S6-B1, and S6-B2

These variations cross the previously burned areas discussed under the Applicant's Proposed Action Alternative, but in slightly different locations.

Zoning

The following is an inventory of the generalized zoning classifications for each alternative and route variation in Segment 6. Refer to Section 3.2.6.4 for a description of the generalized zoning types, and MV-14 for their locations.

Applicant's Proposed Action Alternative

Approximately 85 percent of the Applicant's Proposed Action Alternative crosses lands zoned for Agriculture and approximately 15 percent zoned for Grazing.

Variation S6-A1

Approximately 72 percent of the Variation S6-A1 crosses lands zoned for Agriculture and approximately 28 percent zoned for Grazing.

Variation S6-A2

Approximately 80 percent of the Variation S6-A2 crosses lands zoned for Agriculture and approximately 20 percent zoned for Grazing.

Variations S6-B1 and S6-B2

Approximately 100 percent of these variations cross lands zoned for Agriculture.

Military Training

Table 3-264 presents the affected environment for military training in special-use airspace for the alternatives and route variations in Segment 6.

Table 3-264. Military Training within the 1-Mile-Wide Study Corridor for Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Military Training Routes (miles)
Applicant's Proposed Action	28.0	1.0
Variation S6-A1	*9.3*	*0.0*
Variation S6-A2	*8.9*	*0.0*
Variation S6-B1	*14.4*	*0.0*
Variation S6-B2	*14.1*	*0.0*

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses one mile of MTRs associated within special-use airspace. Military training routes are aerial corridors used solely by military aviation for training flights. The routes are the result of a joint venture between the FAA and the DoD to provide for high-speed, low-level military activities. Military training routes are divided in to instrument routes, and visual routes. Unless noted on the air navigation chart, aircraft may fly as low as 100 to 110 feet above ground level in the B2H Project area along these routes. Special-use airspace in Segment 6 is used by Navy and other military organizations and is not limited to NWSTF Boardman operations. Map 3-3 shows the location of MTRs in the B2H Project area.

Route variations in Segment 6 do not cross through special-use airspace training areas.

Specially Designated Areas

Specially designated areas are lands managed by federal or state agencies to protect values and land uses unique to an area. These areas typically require more intensive management emphasis than is applied to surrounding public lands. Specially designated areas are administratively designated. Administrative designations present in the B2H Project area are ACECs and RNAs. Other types of specially designated areas present in the B2H Project area include designations administered and managed by state natural resource and wildlife departments. These entities include missions to protect habitat, provide recreation and educational opportunities. These include Wildlife Areas and Herd Management Areas.

Congressionally designated areas are described in Section 3.2.11; lands with wilderness characteristics are described in Section 3.2.10.

Area of Critical Environmental Concern

The BLM designates ACECs where special management attention is needed to protect, and prevent irreparable damage to, important historical, cultural, and scenic values, fish, or wildlife resources or other natural systems or processes to protect human life and safety from natural hazards (BLM 1988). The Jump Creek ACEC is located within the 1-mile analysis area, but is not within the 250 foot right-of-way.

Research Natural Areas

There are no RNAs present in the alternative route study corridors in Segment 6.

Wildlife Areas

There are no Wildlife Areas present in the alternative route study corridors in Segment 6.

Table 3-265 presents the specially designated areas and their relevant and important values and management prescriptions for the alternatives and route variations Segment 6.

Herd Management Areas

The BLM Hard Trigger herd management area is located in Owyhee County, Idaho. The herd management area is maintained by the BLM in accordance with The Wild Free-Roaming Horses and

Burros Act of 1971 (Public Law 92-195). Hard Trigger herd management area includes 66,063 total acres of public and other land within the BLM Owyhee Field Office, and is located south of the Snake River between Murphy and U.S. Highway 95 to the west. Herd management area characteristics include rolling hills and sagebrush steppe. The approved management level for the Hard Trigger herd management area is between 66 and 130 animals.

Table 3-265. Specially Designated Areas within the 1-Mile-Wide Study Corridor for Segment 6—Treasure Valley

Relevant and Important Values	Management Prescriptions Relevant to Utility Rights-of-Way	Relevant Alternative Routes
Areas of Critical Environmental Concern		
Jump Creek Canyon Area of Critical Environmental Concern		
Jump Creek Canyon contains excellent examples of several different undisturbed riparian communities along its perennial stream, a diversity of special status animal and other wildlife species, pockets of excellent condition Wyoming sagebrush-bluebunch wheatgrass, and high scenic values. A small portion of the area is currently designated as a recreation site, and the remainder is within the Jump Creek Special Recreation Management Area. Jump Creek is designated as a Stream Segment of Concern.	Exclusion area for surface rights-of-way. Rights-of-way (surface, subsurface and aerial) will not be granted within this area.	Variation S6-B2
Research Natural Areas		
There are no Research Natural Areas present in the alternative route study corridors in Segment 6.		
Wildlife Areas		
There are no Wildlife Areas present in the alternative route study corridors in Segment 6.		
Hard Trigger Herd Management Area		
Not identified.	Appropriate Management Levels (AMLs) for wild horses within the Hardtrigger herd management area are 66-130	• Applicant's Proposed Action • Variations S6-B1 and S6-B2

Applicant's Proposed Action Alternative

The Hard Trigger herd management area is located within the 250 foot right-of-way for the Applicant's Proposed Action Alternative; refer to Table 3-265 for information regarding relevant and important values. The Jump Creek ACEC is not within the 1 mile analysis area for the Applicant's Proposed Action Alternative (Link 6-20).

Variations S6-A1 and S6-A2

Variation S6-A1 and S6-A2 do not cross the Jump Creek ACEC or the Hard Trigger herd management area.

Variation S6-B1

The affected environment for Variation S6-B1 is the same as that described for the Applicant's Proposed Action Alternative.

Variation S6-B2

The Jump Creek Canyon ACEC is within the 1-mile-wide analysis area, is not within the 250 foot wide right-of-way for this variation (Link 6-20). Similar to the Applicant's Proposed Action Alternative, the Hard Trigger herd management area is located within the 250 right-of-way for Variation S6-B2. Refer to Table 3-265 for information related to relevant and important values and management prescriptions for this area.

3.2.6.6 Environmental Consequences (Results of Analysis)

This section generally describes the environmental consequences of the B2H Project on land uses and agriculture. It begins with a review of the criteria that were used to determine impact intensity levels, which is followed by a summary of the design features of the B2H Project for environmental protection that would be applied and that were utilized in the identification of impacts. This is followed by a description of the effects unique to each B2H Project alternative.

Types of Potential Effects

The construction, operation, and maintenance of the B2H Project potentially would result in both direct and indirect effects on land uses. The types of potential effects are described in this section.

Land Ownership, Utility Corridors, Parallel Facilities

Potential effects related to land use and land ownership include the short- or long-term limitations on the use of property. Short-term effects could include temporary constraints on access to a property during construction that cease once the construction activities are completed. Long-term effects could include change of access to a property or use of a property for placement of B2H Project infrastructure. Minimizing impacts on private property and property rights would be carefully considered by the Applicant during final design and engineering (e.g., micro-siting structure placement). The Applicant would negotiate with the owners of real property interests to ensure that, if any private property interests are impaired by the final location, they are appropriately compensated. Other types of potential impacts are discussed in other EIS sections, including Section 3.2.16, Section 3.2.17, and Section 3.2.18.

Existing Land Use

Potential direct and indirect effects on existing land uses could result from the construction and operation of the B2H Project. Potential temporary direct effects from construction activities that could

affect existing residential commercial, industrial and agricultural land uses include detouring of roads, removal of fencing, or non-intentional damage to property. In some cases, access to existing commercial or agricultural operations may be periodically hindered in areas where public and employee access is prohibited for safety reasons.

Potential long-term effects on existing land uses could include restrictions of access or use on lands within the B2H Project study corridor, including restrictions on erection or placement of any building or structure not associated with transmission line facilities; the storage of flammable material; or restrictions on equipment or vehicles into the right-of-way that exceed 14 feet in height. The right-of-way would continue to be used for roads and other general purposes consistent with these limitations. Special access provisions in mining areas could be negotiated with the landowner to maintain existing practices.

Additional potential long-term effects could include physical conflicts with existing residential, commercial, industrial, agricultural or public facilities. B2H Project facilities, including structures, access roads, and substations, could permanently displace some current land uses within the right-of-way, but the transmission line would be located so as to minimize long-term disruptions of current land uses.

Long-term indirect effects could include the potential for colocation of future utilities with the B2H Project. This potential for colocation of future utilities would depend on the regional need for additional facilities, future decisions by the cities' and counties' planning and zoning authorities, and processes in the B2H Project study area.

Timber Management

Potential direct and indirect impacts on timber management may result from construction and operation of the B2H Project. Construction of the B2H Project would require clearing of forested lands in the Wallowa-Whitman National Forest, on forested lands managed by the BLM and Oregon, and on private lands. Refer to Section 3.2.16 for additional information on the potential socioeconomic impacts of timber removal. Refer to Section 3.2.7 for potential impacts on tree farm operations.

Construction through timber management areas and other forested lands would require the removal of trees within the right-of-way and hazard trees adjacent to the right-of-way and adjacent hazard trees that could fall into transmission structures and access roads. Removal of trees within the transmission line right-of-way would be a long-term impact, persisting for the life of the B2H Project. Removal of trees for staging areas, pulling and tensioning sites, and other areas that would be reclaimed following construction would be a long-term impact. The merchantable value of the timber would be determined and the landowner or land-managing agencies would be compensated at fair market value for the timber needing to be removed through authorization by a forest product sale, contract, permit or federal law or regulation.

Potential impacts related to operation of the B2H Project would be long-term, but would not persist beyond the life of the B2H Project. The presence of transmission line structures and conductors could interfere with aerial logging operations, such as helicopter or skyline logging. Vegetation management

will require the occasional removal of young trees in the right-of-way, preventing regrowth of timber. Both authorized and unauthorized vehicular traffic on access roads used for the maintenance and operations of a new transmission line may increase the risk of wildland fire, potentially damaging or destroying existing timber resources outside the B2H Project right-of-way. Tree growth pattern changes in response to wind loading, and trees in dense forests may be susceptible to windthrow if nearby trees are removed (Hale et al. 2012), such as where the right-of-way would cross a currently forested area.

Fire Management

The potential impacts on fire management include the following:

- Activities related to construction and operation of the B2H Project could result in accidental fire ignitions.
- Increased public access along newly created access roads would increase the area where human-caused ignitions could occur.
- Fire-suppression activities may be constrained for safety near the B2H Project, particularly aerial operations and certain types of ground operations where a potential electrical hazard (e.g., downed power lines or other hazards) would exist.
- Fire management may benefit from increased access or the ability to use the right-of-way to develop fire breaks in some cases.
- Fire management opportunities related to prescribed fire or wildland fire use would be constrained near the B2H Project.
- Alteration in vegetation cover as a result of ground-disturbing activities and reclamation may alter the fire regime, potentially resulting in conditions not desired for fire management.

Zoning

Types of Potential Effects related to Zoning include limitations on development as-of-right, need for an amendment, or conditional-use permit for construction in areas that development was previously permitted. For example, all agricultural lands zoned for EFU within Oregon counties would require the Applicant to demonstrate necessity before a permit would be issued to cross EFU-zoned land (refer to Section 3.2.6.2).

Military Training

Some alternative routes cross through NWSTF Boardman Special-use Airspace and other military special-use airspace training routes. Short-term impacts during the construction of B2H Project infrastructure would include the potential for large construction equipment to interfere with NWSTF Boardman Special-use Airspace and other military special-use airspace operations. Long-term effects from the B2H Project would result from the presence of transmission line structures and conductors located within the training route pathways. The presence of these structures could create potential hazards during military training activities.

In addition, historic use of NWSTF Boardman has resulted in the presence of unexploded ordnance on the property. Ground-disturbing activities associated with the construction, operation, and maintenance of the B2H Project could result in a risk to the public in areas where unexploded ordinance clearance has not been confirmed.

Specially Designated Areas

The construction, operation, and maintenance of the B2H Project potentially would result in both direct and indirect effects on specially designated areas. Direct effects may include conflicts with management prescriptions during construction of the B2H Project, conflicts associated with the presence of the transmission line with management prescriptions, and vegetation management of the transmission line right-of-way. Indirect effects may include potential degradation of a specially designated area due to increased access. The ability to manage the specially designated area during, but more importantly, after construction of the B2H Project would be the primary effect being considered for this analysis.

No Action Alternative

If the No Action Alternative is selected, land uses in the B2H Project area, including agricultural operations, would continue unaffected by the B2H Project. Changes in land use are expected over time, but none would be created by the proposed B2H Project.

Effects Common to All Alternatives

Fire Management

While fire behavior can be very generally predicted through vegetation conditions, the actual behavior of a fire depends considerably on the weather conditions at the time of the fire ignition. Additionally, fire ignitions cannot be predicted, although conditions with a high risk of fire ignition and spread can be identified in short-term weather forecasts. Ignitions from natural causes, or from accidental or intentional human causes not related to the B2H Project, cannot be predicted or prevented. With consideration of these issues, a discussion of impacts on fire management specific to any alternative route is not feasible.

State law in Oregon and Idaho requires that basic fire prevention and suppression equipment is available during construction activities in flammable vegetation, and activities that may cause fire ignitions can be prohibited during weather conditions with a high fire risk. Design Feature 1 of the B2H Project for environmental protection provides that a Fire Protection Plan would be included as a part of the POD, and would be enforced through monitoring. Design Feature 23 of the B2H Project for environmental protection prohibits open burning of trash related to construction and operation of the B2H Project. Design Feature 24 of the B2H Project for environmental protection (Table 2-7) requires spark arrestors on all engines used in construction and operation of the B2H Project.

The operation of the B2H Project could influence fire management in the following ways:

- The use of construction and maintenance equipment in the right-of-way could cause fire ignitions.
- The transmission line could cause fire ignitions from contact with encroaching vegetation, failure of components (e.g., downed power lines), airplanes striking a line and starting a fire on hitting the ground, sparking at substations and transformers, or electricity arcing to the ground during smoky or humid conditions.
- New access roads can increase the area where accidental or intentional human-caused fire ignitions may occur.
- Increased public access could lead to increased numbers of human-caused fires.
- The B2H Project transmission line and other facilities such as staging areas would require protection from fire.
- The presence of transmission structures and conductors could affect aerial suppression or fuel reductions operations, such as those using helicopters, single-engine air tankers, air tactical aircraft, utility aircraft, aerial supervision modules, heavy air tankers, smokejumper aircraft, and large transport aircraft.
- The presence of the transmission line could delay firefighters from work near the right-of-way while they wait for the line to be de-energized for safety.
- Changes in vegetation in the B2H Project right-of-way, through vegetation removal and postconstruction reclamation, can alter fire behavior.

Human activity associated with construction and maintenance of the B2H Project or vegetation encroachment into the right-of-way during the life of the B2H Project could increase the potential for fires along the right-of-way, particularly during summertime red-flag warnings (a warning of dangerous fire conditions with low humidity, low fuel moisture and high winds) (BLM 2005). The B2H Project right-of-way would become a high priority for fire suppression and fuels management where it traverses undeveloped areas. Construction facilities where equipment and materials are stored and construction areas where people work are likely to be designated as high-value areas that need protection from wildland fire where they may have been a lower priority otherwise. These additional areas of high-value place an increased demand on fire-suppression personnel and equipment, particularly when other fires require attention.

The B2H Project structures and ancillary facilities could narrow the range of suppression techniques used on wildfires in the right-of-way vicinity, due to the safety hazard that electrical infrastructure represents to firefighters and the potential for damage to the infrastructure in the right-of-way. Aerial operations would become inappropriate near the right-of-way because these operations could endanger pilots and firefighters, and potentially cause damage to the infrastructure in the right-of-way. Aerial application of flame retardants, for example, could require that insulators be manually cleaned prior to reenergizing the transmission line.

Motor-vehicle traffic mobilizing into and out of the right-of-way, if a fire occurs during construction or maintenance, could increase emergency response times if fire crews encounter construction or maintenance traffic when traveling to an incident. There would be low potential for fire responders to encounter traffic associated with right-of-way construction on low-capacity roads. Traffic bottlenecks would not be expected to affect firefighter safety or fire size unless responders encounter convoys of ingress/egress traffic on low-capacity roads. Firefighter access to an area also could be delayed if the transmission line is energized and poses a threat to firefighter safety. Firefighters would have to wait until the line can be de-energized prior to engaging in certain activities near the right-of-way. However, access roads for the B2H Project would provide increased access for fire-suppression personnel, and serve as potential locations to develop firebreaks.

Prescribed fire would be limited as a management tool in the vicinity of the B2H Project right-of-way for many of the same reasons relating to safety and constraints on suppression techniques. This would reduce opportunities to reintroduce fire into ecosystems adjacent to the alternatives and route variations, but the overall reduction would be low because fire is not desirable as a management tool in a majority of areas due to existing resource conditions, mix of land ownership, and structures. No lands in the study corridor are currently designated as a wildland fire use area, where wildland fires might be allowed to burn if resource management objectives would be advanced by the fire. Prescribed fire may be used throughout public lands to meet resource management objectives, particularly vegetation management.

In forested environments, broadcast burning may become an inappropriate tool to dispose of slash in the vicinity of the right-of-way. Clearing trees and large brush and treating weeds within the proposed right-of-way would decrease the continuity of ladder fuels, and could increase the fire-free interval in the vicinity of the proposed right-of-way (Deanne et al. 1998).

Zoning

Impacts from the construction and operation of the B2H Project to zoning are described in terms of the compatibility of the B2H Project with the policies and objectives identified in the local comprehensive plans, as well as, the B2H Project's potential to conform to local zoning codes. Goals and objectives have been identified through local and county comprehensive plans throughout the B2H Project area that identify the desired patterns of land development. The B2H Project study corridors do not cross any zones that exclude or prohibit outright the construction of the B2H Project facilities; however, certain zones the B2H Project crosses would not be permitted for development as-of-right, and would require an amendment, or conditional-use permit for construction. Specific areas are discussed qualitatively on a case-by-case basis. As indicated in Section 3.2.6.3, the Applicant has elected to have the ESFC determine the B2H Project's conformance with local plans and ordinances within Oregon. Owyhee County will determine conformance in Idaho.

Potential conflicts between the B2H Project and local city and county comprehensive plans and zoning ordinances are typically a matter of local physical conditions. In general, these conflicts are due to the potential interference of B2H Project facilities with rural residential and commercial agricultural,

ranching or forestry related land uses. For example, as identified in the 2014 Umatilla County Comprehensive Plan, "Umatilla County agriculture contributes about 100 million dollars in annual income to the county and supports local food processing, transportation, trade, and service employment and payrolls…[b]esides being the largest industry in the county and the second largest industry in Oregon, agriculture creates a rural atmosphere greatly desired by many city, rural, and regional people" (Umatilla County 2014). Similarly, agriculture is a major source of income for private landowners and provides benefits to cities, towns, and counties throughout the B2H Project area (refer to Section 3.2.17). As discussed in Section 3.2.6.2 (Regulatory Framework) preservation of this agricultural heritage is identified as an Oregon Statewide Planning Goal, and is codified by the EFU zones in all Oregon counties crossed by the B2H Project Alternatives. ERU zones are identified in the 1982 Malheur County Comprehensive Plan and 2015 Malheur County Code, and carry the same conditions as the EFU zones. For a discussion of effects on agricultural and rangeland resources, refer to Section 3.2.7.

SEGMENT 1—MORROW-UMATILLA

Land Ownership, Utility Corridors, and Parallel Facilities

Table 3-266 and Table 3-267 present the miles of land ownership and utility corridors crossed for the alternatives and route variations in Segment 1.

Table 3-266. Land Ownership and Utility Corridors for Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Land Ownership						Utility Corridors		
		Bureau of Land Management	Bureau of Reclamation	Department of Defense	U.S. Forest Service	State	Private	Resource Management Plan	West-Wide Energy Corridor	Percent within Utility Corridor
Applicant's Proposed Action	91.9	0.1	0.0	10.6	4.5	0.0	76.7	4.2	0.0	4.6
Variation S1-B1	*6.4*	*0.1*	*0.0*	*0.0*	*4.5*	*0.0*	*1.8*	*4.2*	*0.0*	*65.6*
Variation S1-B2	*6.4*	*0.0*	*0.0*	*0.0*	*3.7*	*0.0*	*2.7*	*3.7*	*0.0*	*57.8*
East of Bombing Range Road	92.2	0.1	0.0	0.0	4.5	2.0	85.7	4.2	0.0	4.6
Applicant's Proposed Action – Southern Route	99.2	0.2	0.0	10.6	4.5	0.0	83.8	4.2	0.0	4.2
West of Bombing Range Road – Southern Route	95.6	0.4	0.0	10.6	4.5	0.0	80.1	4.2	0.0	4.4
Longhorn	88.3	0.1	0.0	0.0	4.5	0.0	83.6	4.2	0.0	4.8
Interstate 84	84.8	0.1	0.0	0.1	4.5	0.0	80.0	4.2	0.0	5.0
Variation S1-A1	*18.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*18.5*	*0.0*	*0.0*	*0.0*
Variation S1-A2	*18.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*18.5*	*0.0*	*0.0*	*0.0*
Interstate 84 – Southern Route	93.5	0.2	0.0	0.1	4.5	0.0	88.6	4.2	0.0	4.5

Table 3-267. Parallel Facilities for Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Parallel Linear Facilities (within 300 feet of reference centerline) (miles crossed)							Parallel Linear Facilities (from 300 feet to 2,000 feet from reference centerline) (miles crossed)							Total Miles Parallel Linear Facilities (within 300 feet)	Total Miles Parallel Linear Facilities (from 300 to 2,000 feet)	Total Number of Linear Facility Crossings
		69-kV[1]	115-kV[2]	138-kV	230-kV	500-kV	Pipeline	Roads	69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads			
Applicant's Proposed Action	91.9	12.4	*7.0*	0.0	0.0	0.3	0.1	36.2	2.4	0.0	0.0	3.9	0.4	0.8	38.4	36.9	38.2	94
Variation S1-B1	*6.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.5*	*0.0*	*0.0*	*0.0*	*3.1*	*0.0*	*0.0*	*5.9*	*0.5*	*5.9*	*4*
Variation S1-B2	*6.4*	*0.0*	*0.0*	*0.0*	*6.1*	*0.0*	*0.0*	*1.2*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.0*	*5.0*	*6.2*	*0.2*	*10*
East of Bombing Range Road	92.3	13.2	7.0	0.0	0.0	0.3	0.1	38.0	2.8	0.0	0.0	3.9	0.4	0.9	38.2	38.7	37.8	96
Applicant's Proposed Action – Southern Route	99.1	12.2	7.0	0.0	0.0	0.3	0.1	38.6	1.0	0.0	0.0	3.9	0.4	0.8	45.0	39.0	45.0	105
West of Bombing Range Road – Southern Route	95.6	12.4	7.0	0.0	0.0	0.3	0.2	25.3	2.3	0.0	0.0	3.9	0.4	0.8	47.5	25.8	47.5	88
Longhorn	88.2	1.2	0.0	0.0	0.0	0.2	0.1	28.3	2.1	0.0	0.0	3.8	0.3	0.8	42.1	28.9	41.5	93
Interstate 84	84.7	0.7	0.0	0.0	0.4	0.2	0.2	37.0	4.6	0.0	0.0	5.6	0.3	0.8	35.9	37.7	35.6	88
Variation S1-A1	*18.5*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.0*	*15.2*	*0.0*	*0.0*	*0.0*	*1.0*	*0.0*	*0.0*	*1.8*	*15.4*	*1.7*	*18*
Variation S1-A2	*18.5*	*0.0*	*0.0*	*0.0*	*18.5*	*0.0*	*0.0*	*3.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*11.7*	*18.5*	*0.0*	*25*
Interstate 84 – Southern Route	93.4	0.5	0.0	0.0	0.4	0.2	0.2	40.8	3.2	0.0	0.0	5.6	0.3	0.8	42.0	41.3	42.0	100

Table Notes:

69-kV transmission line would be replaced by the B2H Project 500-kV transmission line.

Mileage is approximate based on digitization of the 115-kV transmission line along Bombing Range Road.

Applicant's Proposed Action Alternative

This alternative predominately crosses private lands (76.7 miles) and 10.6 miles of DoD lands on the NWSTF Boardman. Other jurisdictions crossed include BLM and USFS lands.

This alternative is located within a designated utility corridor in the Wallowa-Whitman National Forest for 4.2 miles. In addition, this alternative is sited parallel to an existing facility (transmission line, pipeline, or road) for 36.9 miles (approximately one-third of the alternative length). This alternative does not parallel the existing 230-kV line to avoid crossing Interstate 84 twice.

As noted above, the Applicant's Proposed Action Alternative crosses 10.6 miles of DoD lands on the NWSTF Boardman within a 90-foot-wide use area, currently occupied by a 69-kV transmission line owned by BPA. The Applicant's Proposed Action Alternative is to "repurpose" the 90-foot-wide use area currently occupied by this 69-kV transmission line, which is under a land-use agreement between the Navy and BPA is dissolved, used of the land would be a new action between the Navy and the Applicant.

To allow the BPA to continue electrical service to customers serviced by the displaced 69-kV transmission line and accommodate the Applicant's requested use of the NWSTF Boardman property; the BPA and UEC are coordinating to relocate the BPA's 69-kV line. The UEC owns and operates a 115-kV transmission line on private land on the east side of Bombing Range Road to Homestead Lane where the line enters the Bombing Range Substation. The current proposal involves UEC rebuilding its existing 115-kV line to single-pole double-circuit structures to support the UEC 115-kV circuit and the BPA 69-kV circuit from Wilson Lane, at the north end of the NWSTF Boardman, to Homestead Lane; a distance of approximately 3.5 miles. The double-circuit 69/115-kV structures would be no taller than 100 feet, the typical footprint at the base of the structure would be a circle approximately 3 feet in diameter, and spans between structures would be approximately 400 to 600 feet. The double-circuit line is anticipated to occupy a right-of-way 55 feet wide.

From Homestead Lane, still east of Bombing Range Road and on private land, the 69-kV circuit would be extended south on new single-pole single-circuit structures for approximately 8.5 miles. Along this section of the line, the single-circuit 69-kV structures would be approximately 70 feet tall, the footprint at the base of the structure would be a circle approximately 2 feet in diameter, and spans between structures would be 400 to 600 feet. At the point where the proposed B2H Project would divert from the NWSTF Boardman property east onto private property, the 69-kV circuit would cross to the west side of Bombing Range Road and connect with the existing 69-kV H-frame line and continue on the NWSTF Boardman for approximately 3.9 miles then onto private land continuing farther south to serve the Columbia Basin Electric Cooperative load.

The impact on property ownership and rights will be carefully considered by the Applicant, during final design. Mitigation Measure 8 would be applied to allow for micro-siting of the B2H Project, where feasible, to avoid or minimize impacts on property ownership. The Applicant will negotiate with the owners of real property interests to ensure that, if any private property interests are impaired by the final location, they are appropriately compensated. Compensation for use of property would be

negotiated between the landowner (either private or public) and the Applicant during the land title or easement acquisition process. Any land valuation or easement negotiations on private property would not involve the BLM or other land-managing agencies Refer to Table 3-227 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 1.

Variation S1-B1

Variation S1-B1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation avoids the DoD lands on the NWSTF Boardman and also does not parallel the existing 230-kV transmission line to avoid crossing Interstate 84 twice. Variation S1-B1 is located within the Wallowa-Whitman National Forest designated utility corridor for 4.2 miles.

Variation S1-B2

Variation S1-B2 also avoids the DoD lands on the NWSTF Boardman but does parallel the existing 230-kV transmission line for 6.1 miles crossing Interstate 84 twice before rejoining the Segment 1 alternatives south of the interstate. Variation S1-B2 is located within the Wallowa-Whitman National Forest designated utility corridor for 3.7 miles.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

These design options would occur on private land only.

East of Bombing Range Road Alternative

The East of Bombing Range Road Alternative predominately crosses private lands (85.7 miles) and avoids the DoD lands on the NWSTF Boardman. Other jurisdictions crossed include BLM and USFS lands. Refer to Table 3-227 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 1.

This alternative is located within a designated utility corridor in the Wallowa-Whitman National Forest for 4.2 miles.

This alternative differs from the Applicant's Proposed Action Alternative only in that it is sited parallel to Bombing Range Road on the east side rather than on the west side of the road. The route was partially developed to align with an existing transmission corridor. Along Bombing Range Road, the alternative route parallels BPA 69-kV line (located on the west side of Bombing Range Road) for approximately 13.2 miles. Similar to the Applicant's Proposed Action, this alternative does not parallel the existing 230-kV transmission line to avoid crossing Interstate 84 twice.

Applicant's Proposed Action – Southern Route Alternative

The Applicant's Proposed Action – Southern Route Alternative predominately crosses private lands (83.8 miles) and 10.6 miles of DoD lands on the NWSTF Boardman. Other jurisdictions crossed include BLM and USFS lands. Refer to Table 3-227 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 1.

This alternative is located within a designated utility corridor in the Wallowa-Whitman National Forest for 4.2 miles.

In addition, this alternative is sited parallel to an existing facility (transmission line, pipeline, or road) for 39.0 miles (approximately one-third of the alternative length). This alternative does not parallel the existing 230-kV line to avoid crossing Interstate 84 twice.

Similar to the Applicant's Proposed Action Alternative, this alternative also crosses 10.6 miles of DoD lands on the NWSTF Boardman within a 90-foot-wide use are, currently occupied by a 69-kV transmission line owned by BPA.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The environmental consequences for this design option are the same as those described under Design Option 1 on the Applicant's Proposed Action Alternative.

Design Option 2

The environmental consequences for this design option are the same as those described under Design Option 2 on the Applicant's Proposed Action Alternative.

Design Option 3

The environmental consequences for this design option are the same as those described under Design Option 3 on the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The West of Bombing Range Road – Southern Route Alternative predominately crosses private lands (80.1 miles) and 10.6 miles of DoD lands on the NWSTF Boardman. Other jurisdictions crossed include BLM and USFS lands. Refer to Table 3-227 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 1.

This alternative is located within a designated utility corridor in the Wallowa-Whitman National Forest for 4.2 miles.

In addition, this alternative is sited parallel to an existing facility (transmission line, pipeline, or road) for 25.8 miles (approximately one-third of the alternative length). This alternative does not parallel the existing 230-kV line to avoid crossing Interstate 84 twice.

Similar to the Applicant's Proposed Action Alternative, this alternative also crosses 10.6 miles of DoD lands on the NWSTF Boardman within a 90-foot-wide use are, currently occupied by a 69-kV transmission line owned by BPA.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The environmental consequences for this design option are the same as those described under Design Option 1 on the Applicant's Proposed Action Alternative.

Design Option 2

The environmental consequences for this design option are the same as those described under Design Option 2 on the Applicant's Proposed Action Alternative.

Design Option 3

The environmental consequences for this design option are the same as those described under Design Option 3 on the Applicant's Proposed Action Alternative.

Longhorn Alternative

The Longhorn Alternative predominately crosses private lands (83.6 miles) and avoids the DoD lands on the NWSTF Boardman. Other jurisdictions crossed include BLM and USFS lands. Refer to Table 3-227 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 1.

This alternative is located within a designated utility corridor in the Wallowa-Whitman National Forest for 4.2 miles.

In addition, this alternative parallels an existing facility (transmission line, pipeline, or road) for 28.9 miles (approximately one-third of the alternative length). This alternative does not parallel the existing 230-kV line to avoid crossing Interstate 84 twice.

Interstate 84 Alternative and Variations

The Interstate 84 Alternative predominately crosses private lands (80.0 miles) and crosses DoD lands on the Umatilla Ordnance Depot for 0.1 mile. Other jurisdictions crossed include BLM and USFS lands. Refer to Table 3-227 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 1.

This alternative is located within a designated utility corridor in the Wallowa-Whitman National Forest for 4.2 miles.

In addition, this alternative is sited parallel to an existing facility (transmission line, pipeline, or road) for 37.7 miles (approximately one-third of the alternative length). This alternative was developed with the intent to consolidate the proposed transmission line with other linear facilities and in areas already disturbed. This alternative parallels Interstate 84 for approximately 35 miles (except for approximately a 6-mile-long section just south of the Umatilla Ordnance Depot) to an area 6 miles west of Pendleton. This alternative does not parallel the existing 230-kV line to avoid crossing Interstate 84 twice.

Variation S1-A1

Variation S1-A1 is the same alignment as the Interstate 84 and Interstate 84 – Southern Route alternatives but is sited parallel to the existing 230-kV transmission line.

This variation is not within a designated utility corridor.

Variation S1-A2

Variation S1-A2 was developed to respond to the comments on the Draft EIS to site the B2H Project parallel to Interstate 84 and/or exiting 230-kV transmission line. This variation separates from the Interstate 84 and Interstate 84 – Southern Route alternatives by turning southeast in an area north of the community of Echo and parallels the existing 230-kV line crossing the Umatilla River approximately 15 miles west of Pendleton.

This variation is not within a designated utility corridor.

Interstate 84 – Southern Route Alternative

The Interstate 84 – Southern Route Alternative predominately crosses private lands (88.6 miles) and crosses DoD lands on the Umatilla Ordnance Depot for 0.1 mile. Other jurisdictions crossed include BLM and USFS lands.

This alternative is located within a designated utility corridor in the Wallowa-Whitman National Forest for 4.2 miles. In addition, this alternative is sited parallel to an existing facility (transmission line, pipeline, or road) for 41.3 miles (approximately one-third of the alternative length). This alternative is similar to the Interstate 84 Alternative but extends the north-south portion farther south to connect with the Southern Route avoiding the McKay Creek area. This alternative does not parallel the existing 230-kV transmission line to avoid crossing Interstate 84 twice.

Conclusions

The reference centerlines for alternative routes in Segment 1 cross primarily private lands and some federal lands. The percentage of federal lands crossed by Segment 1 alternative routes ranges from 5.2 percent (Interstate 84—Southern Route Alternative) to 16.5 percent (Applicant's Proposed Action Alternative). Alternative routes in Segment 1 use designated utility corridors for similar distances. The total miles of parallel linear facilities within 2,000 feet of Segment 1 alternatives range from 70.4 miles (Longhorn Alternative) to 84.0 miles (Applicant's Proposed Action-Southern Route Alternative). The Applicant's Proposed Action Alternative crosses the most federal lands, and would parallel more existing linear facilities as compared to other Segment 1 alternative routes.

Existing Land Use

Table 3-268 and Table 3-269 present the residual impacts on existing land use types and structures for all alternative routes and route variations in Segment 1. For locations of residual impacts described below refer to MV-13.

Table 3-268. Existing Land Use Inventory Data and Overall Residual Impacts for Segment 1—Morrow-Umatilla										
Alternative Route	Total Length (Miles)	Resource Inventory for Existing Land Use GAP Types (miles crossed)						Overall Residual Impacts for Existing Land Use GAP Types (miles crossed)		
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland	None	Low	Moderate
Applicant's Proposed Action	91.9	32.7	0.0	2.1	16.7	12.6	27.8	0.0	42.4	49.5
Variation S1-B1	*6.4*	*0.0*	*0.0*	*0.0*	*6.2*	*0.1*	*0.1*	*0.0*	*0.2*	*6.2*
Variation S1-B2	*6.4*	*0.0*	*0.0*	*0.3*	*5.9*	*0.0*	*0.2*	*0.0*	*0.5*	*5.9*
East of Bombing Range Road	92.3	38.9	0.1	0.5	16.7	13.0	23.1	0.0	36.7	55.6
Applicant's Proposed Action to Southern Route	99.1	28.5	0.0	2.1	18.2	17.1	33.2	0.0	52.3	46.8
West of Bombing Range Road to Southern Route	95.6	20.0	0.0	1.9	18.2	22.2	33.3	0.0	57.3	38.3
Longhorn	88.2	35.2	0.0	1.0	16.7	13.7	21.6	0.0	36.3	51.9
Interstate 84	84.7	25.4	0.0	14.7	16.7	12.0	15.7	0.2	42.3	42.2
Variation S1-A1	*18.5*	*5.4*	*0.0*	*8.4*	*0.0*	*2.2*	*2.5*	*0.0*	*13.1*	*5.4*
Variation S1-A2	*18.5*	*5.7*	*0.0*	*0.0*	*0.0*	*1.9*	*10.9*	*0.0*	*12.7*	*5.8*
I-84 to Southern Route	93.4	22.7	0.0	14.7	18.2	16.7	20.9	0.2	52.2	41.0

Applicant’s Proposed Action Alternative

The Applicant’s Proposed Action Alternative would result in 49.5 miles of residual moderate impacts on existing land uses where the reference centerline of the route crosses irrigated agricultural areas and dry farmlands, or crosses near residential or agricultural structures. These temporary impacts associated with construction could include detouring of roads, removal of fencing, or non-intentional damage to property. In some cases, access to existing commercial or agricultural operations may be periodically hindered in areas where public and employee access is prohibited for safety reasons. Impacts resulting from the operation of the Applicant’s Proposed Action Alternative would likely be minimal as agricultural operations could persist adjacent to and within areas of the right-of-way where transmission facilities could span agricultural features. No residual high impacts associated with Applicant’s Proposed Action Alternative would be expected.

Table 3-269. Residual Impacts for Existing Land Use Structures for Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Residual Impacts for Each Structure Type (miles crossed)																		Overall Residual Impacts on Structures (miles crossed)		
		Building (Non-residence)		Other		Residential		Rest Stop		Mining/ Extraction		Outstructure		Communication Facility		Power Substation		Windmill				
		None	Low	None	Moderate	None	Moderate	None	Moderate	None	Low	None	Low	None	Low	None	Low	None	Low	None	Low	Moderate
Applicant's Proposed Action	91.9	91.7	0.2	91.7	0.2	91.8	0.1	91.9	0.0	91.9	0.0	91.4	0.5	91.9	0.0	91.7	0.2	91.9	0.0	90.7	0.9	0.3
Variation S1-B1	*6.4*	*6.4*	*0.0*	*6.4*	*0.0*	*6.3*	*0.1*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.3*	*0.0*	*0.1*
Variation S1-B2	*6.4*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*6.4*	*0.0*	*0.0*
East of Bombing Range Road	92.3	92.1	0.2	92.0	0.3	92.2	0.1	92.3	0.0	92.3	0.0	91.8	0.5	92.3	0.0	92.0	0.3	92.3	0.0	91.1	0.8	0.4
Applicant's Proposed Action to Southern Route	99.1	98.9	0.2	98.9	0.2	99.0	0.1	99.1	0.0	99.1	0.0	98.6	0.5	99.1	0.0	98.9	0.2	99.1	0.0	97.9	0.9	0.3
West of Bombing Range Road to Southern Route	95.6	95.4	0.2	95.4	0.2	95.5	0.1	95.6	0.0	95.6	0.0	95.2	0.4	95.6	0.0	95.4	0.2	95.6	0.0	94.5	0.8	0.3
Longhorn	88.2	87.7	0.5	88.1	0.1	87.9	0.3	88.2	0.0	88.2	0.0	86.7	1.5	88.2	0.0	88.1	0.1	88.2	0.0	86.2	1.6	0.4
InterstateI-84	84.7	83.2	1.5	84.7	0.0	84.3	0.4	84.6	0.1	84.7	0.0	83.5	1.2	84.6	0.1	84.6	0.1	84.7	0.0	81.7	2.5	0.5
Variation S1-A1	*18.5*	*17.8*	*0.7*	*18.5*	*0.0*	*18.5*	*0.0*	*18.5*	*0.0*	*18.5*	*0.0*	*18.2*	*0.3*	*18.4*	*0.1*	*18.5*	*0.0*	*18.5*	*0.0*	*17.5*	*1.0*	*0.0*
Variation S1-A2	*18.5*	*18.3*	*0.2*	*18.5*	*0.0*	*18.3*	*0.2*	*18.5*	*0.0*	*18.5*	*0.0*	*18.2*	*0.3*	*18.5*	*0.0*	*18.5*	*0.0*	*18.5*	*0.0*	*18.2*	*0.1*	*0.2*
I-84 to Southern Route	93.4	91.9	1.5	93.4	0.0	93.0	0.4	93.3	0.1	93.4	0.0	92.2	1.2	93.3	0.1	93.3	0.1	93.4	0.0	90.4	2.5	0.5

Variation S1-B1

Variation S1-B1 would result in 6.2 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas that could result in short-term conflicts with natural resource development. These temporary impacts associated with construction could include detouring of roads, removal of fencing. In some cases, access to existing forest/woodland areas may be periodically hindered where public and employee access is prohibited for safety reasons. No residual high impacts associated with Variation S1-B1 would be expected.

Variation S1-B2

Similar to Variation S1-B1, Variation S1-B2 would result in 5.9 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas. No residual high impacts associated with Variation S1-B2 would be expected.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1 Through 3

Impacts associated with the additional action on existing land uses would be similar to those described for the Applicant's Proposed Action Alternative where the existing line UEC 115-kV line would be upgraded to a double circuit. Additional new right-of-way where the proposed additional action extends beyond Homestead Lane could temporarily affect areas of irrigated farmland during construction of the facilities. Impacts resulting from the operation of the additional action would likely be minimal as agricultural operations could persist adjacent to and within areas of the right-of-way where transmission facilities could span agricultural features.

East of Bombing Range Road Alternative

East of the Bombing Range Road Alternative would result in 55.6 miles of moderate impacts on existing land uses where the centerline of the alternative route crosses irrigated agricultural areas and dry farmlands, or crosses near residential or agricultural structures. These impacts would be similar to those described for the Applicant's Proposed Action Alternative (west of Bombing Range Road Alternative). No residual high impacts associated with this alternative would be expected.

Applicant's Proposed Action – Southern Route Alternative

Applicant's Proposed Action – Southern Route Alternative would result in 46.8 miles of residual moderate impacts on existing land uses where the centerline of the alternative route crosses irrigated agricultural areas and dry farmlands, or crosses near residential or agricultural structures. These impacts would be similar to those described for the Applicant's Proposed Action (west of Bombing Range Road Alternative). No residual high impacts associated with this alternative would be expected.

West of Bombing Range Road – Southern Route Alternative

West of Bombing Range Road – Southern Route Alternative would result in 38.3 miles of moderate impacts on existing land uses where the centerline of the alternative route crosses irrigated agricultural areas and dry farmlands, or crosses near residential or agricultural structures. These impacts would be similar to those described for the Applicant's Proposed Action Alternative (west of Bombing Range

Road Alternative). No residual high impacts associated with this alternative would be expected. No residual high impacts associated with this alternative would be expected.

Longhorn Alternative

The Longhorn Alternative would result in 51.9 miles of moderate impacts on existing land uses where the reference centerline crosses irrigated agricultural areas and dry farmlands, or crosses near residential or agricultural structures. These impacts would be similar to those described for the Applicant's Proposed Action Alternative (west of Bombing Range Road Alternative). No residual high impacts associated with this alternative would be expected.

Interstate 84 Alternative

Interstate 84 Alternative would result in 42.7 miles of moderate impacts on existing land uses where the reference centerline crosses irrigated agricultural areas and dry farmlands, or near residences. These impacts would be similar to those described for the Applicant's Proposed Action Alternative (west of Bombing Range Road Alternative). Where this alternative crosses southwest portions of the Umatilla Ordnance Depot for approximately 0.1 mile, the reference centerline is colocated between the interstate to the south and a railroad to the north. Therefore, low impacts would be expected to DoD land uses in this area. No residual high impacts associated with this alternative would be expected.

Variation S1-A1

Variation S1-A1 would result in 5.4 miles of moderate impacts on existing land uses where the reference centerline crosses irrigated agricultural areas and dry farmlands. These impacts would be similar to those described for the Applicant's Proposed Action Alternative (west of Bombing Range Road Alternative). No residual high impacts associated with this variation would be expected.

Variation S1-A2

Variation S1-A2 would have 5.8 miles of residual moderate impacts on existing land uses where the centerline of the route crosses irrigated agricultural areas and dry farmlands. These impacts would be similar to those described for the Applicant's Proposed Action Alternative (west of Bombing Range Road Alternative). No residual high impacts associated with this variation would be expected.

Interstate 84 – Southern Route Alternative

Interstate 84 – Southern Route Alternative would result in 41.0 miles of moderate impacts on existing land uses where the reference centerline crosses irrigated agricultural areas and dry farmlands, or near residences. These impacts would be similar to those described for the Applicant's Proposed Action Alternative (west of Bombing Range Road Alternative). Where this alternative crosses southwest portions of the Umatilla Ordnance Depot for approximately 0.1 mile, the reference centerline is colocated between the interstate to the south and a railroad to the north. Therefore, low impacts would be expected to DoD land uses in this area. No residual high impacts associated with this alternative would be expected.

Conclusions

In Segment 1, no high residual impacts are anticipated on existing land uses from any of the alternatives. Moderate residual impacts associated with Segment 1 alternative routes would occur where the Project would cross agricultural or forested/woodland areas, or near residences and other structures. The lengths of the alternative routes in this segment range from 84.7 miles (Interstate 84 Alternative) to 99.1 miles (Applicant's Proposed Action to Southern Route Alternative). Overall, moderate residual impacts on existing land uses would range from 38.3 miles (West of Bombing Range Road to Southern Route Alternative) to 55.6 miles (East of Bombing Range Road Alternative). Considering the overall length of an alternative route and the extent of moderate residual impacts, the I-84 to Southern Route Alternative would have the least effects on existing land uses among the alternative routes in Segment 1. There is no notable difference in impacts on existing land uses among the variations.

Timber Management

Applicant's Proposed Action Alternative

All of the potential impacts on timber management presented in Section 3.2.6.1 could occur wherever forested lands are crossed by the Applicant's Proposed Action in Segment 1. These impacts can be summarized as a potential loss of harvestable timber, a loss of future timber revenue, and potential constraints on certain types of timber harvest operations adjacent to the right-of-way for safety near transmission components.

Table 3-228 provides miles crossed of forested lands on each alternative route in Segment 1. Impacts on lands administered by the USFS would be evaluated under the management direction in the LRMP. Impacts on forested private lands would vary with the landowner and their individual concerns. The Applicant will negotiate with the landowner regarding compensation for timber values lost or reduced as a result of the B2H Project.

Goal 4 of the Oregon Statewide Local Planning Goals includes the following requirements for siting transmission lines on forested lands:

- The proposed use must not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands.
- The proposed use must not significantly increase fire hazard or significantly increase fire-suppression costs or significantly increase risks to fire-suppression personnel.
- The proposed use has the least impact on nearby or adjoining forest or agricultural lands.
- The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized.
- The amount of forest lands used to site access roads, service corridors, and structures is minimized.
- The risks associated with wildfire are minimized.

Through right-of-way fees and compensation to landowners, the Applicant would ensure that significant changes in cost or forest practices do not result from the B2H Project. Design features of the B2H Project for environmental protection address the requirements to minimize fire hazard, risks to fire-suppression personnel, impacts on forest operations, and the amount of forested lands used for access roads and other components.

Other Alternative Routes and Variations in Segment 1

Potential impacts on timber management on all other alternative routes and variations in Segment 1 would be similar, wherever forested vegetation is crossed.

Conclusions

There is no discernable difference in impacts on timber management among the alternative routes and variations analyzed in Segment 1.

Fire Management

Refer to the discussion in the Effects Common to All Alternatives section.

Conclusions

There is no discernable difference in impacts on fire management among the alternative routes and variations analyzed in Segment 1.

Zoning

The result of the effects analysis for zoning for the alternatives and route variations in Segment 1 are described below in terms of miles crossed of EFU or ERU zones. As discussed in Effects Common to All Alternatives for Zoning there are no identified zones crossed that prohibit the development of the B2H Project facilities; however, in areas where the B2H Project crosses EFU or ERU zones, the Applicant would have to demonstrate necessity as described in Section 3.2.6.2 Regulatory Framework. In all cases, the potential effect of not demonstrating necessity could result in non-conformance with Oregon Statewide Planning Goals. Refer to MV-14 for locations of EFU and ERU zoning.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action crosses approximately 64.0 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S1-B1 and Variation S1-B1 would not cross any EFU zoning, thus no identifiable impacts would occur on property zoned for EFU.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1 through 3

The additional action associated with Design Options 1 through 3 crosses EFU zoning in areas where new right-of-way would be needed south of Homestead Lane. Potential effects are discussed in Effects Common to All Alternatives.

East of Bombing Range Road Alternative

The East of Bombing Range Road Alternative crosses 75.2 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Applicant's Proposed Action – Southern Route Alternative

The Applicant's Proposed Action – Southern Route Alternative crosses 70.2 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1 through 3

The additional action associated with Design Options 1 through 3 crosses EFU zoning in areas where new right-of-way would be needed south of Homestead Lane. Potential effects are discussed in Effects Common to All Alternatives.

West of Bombing Range Road – Southern Route Alternative

The West of Bombing Range Road – Southern Route Alternative crosses 66.7 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1 through 3

The additional action associated with Design Options 1 through 3 crosses EFU zoning in areas where new right-of-way would be needed south of Homestead Lane. Potential effects are discussed in Effects Common to All Alternatives.

Longhorn Alternative

The Longhorn Alternative crosses 71.7 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Interstate 84 Alternative and Variations

The Interstate 84 Alternative crosses 65.6 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S1-A1

The Variation S1-A1 crosses 18.1 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S1-A2

The Variation S1-A2 crosses 18.5 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Interstate 84 – Southern Route Alternative

The Interstate 84 – Southern Route Alternative crosses 73.3 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Conclusions

Because the Applicant has elected to demonstrate compliance with statewide planning goals by under Path B, the EFSC would determine whether the project complies with applicable Land Conservation and Development Commission rules and land-use statutes (including statewide planning goals), and any applicable, substantive criteria from each county's local comprehensive plan and land-use regulations. There is no notable difference among Segment 1 alternative routes or variations with regard to zoning. All cross similar distances of EFU zones.

Military Training

Table 3-266 presents the residual impacts on MTRs for the alternatives and route variations in Segment 1.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would parallel the west side of Bombing Range Road for approximately 12 miles within a 90-foot-wide use area currently occupied by a 69-kV transmission line owned by BPA, on NWSTF Boardman property. It is anticipated that a new 90-foot-wide easement for the repurposing of this area would be needed for the proposed 500-kV transmission line. Repurposing the 90-foot-wide easement (currently used by BPA) would dissolve the existing land use agreement and require the development of a new land-use agreement between the Applicant and the Navy. At the southern terminus of Bombing Range Road; the Applicant's Proposed Action turns east crossing areas of irrigated and dryland agriculture for approximately 40 miles and exiting the boundaries of the NWSTF Boardman within Segment 1.

NWSTF Boardman has expressed concern regarding the construction of transmission line structures within special-use airspace in proximity of Bombing Range Road. Potential effects from the Applicant's Proposed Action would include the potential for restriction of aircraft movement during training operations. In addition the presence of structures and conductors within special-use airspace would create potential collision hazards with B2H Project facilities.

The B2H Project description includes structure-design modifications to meet the requirements of the Navy and the FAA in response to NWSTF Boardman's request to limit tower heights to 100 feet or less, and to allow NWSTF Boardman to meet their training mission. Transmission line structure-design modification would be effective in meeting NWSTF Boardman's request to limit structure heights to 100 feet or less and allowing NWSTF Boardman to meet their training mission (M. Vaughn, Idaho Power Company, email communication with author, 2016). As discussed in Section 2.3.1.2, the single-circuit two-pole H-frame structure could be used along the boundary of NWSTF Boardman. These structure types vary in height from 85 to 100 feet and require 9 to 12 structures per mile (450 to 600 foot span between structures) (refer to Table 2-1). Therefore, the configuration of the single-circuit two-pole H-frame structures would be effective in mitigating impacts on training activities within special-use airspace. In addition, structures, conductors, and/or shield wires would be marked with high-visibility devices (i.e., markerballs or other marking devices) where required by NWSTF Boardman and/or FAA.

The FAA requires utility line separation from runways and horizontal and conical zones for the safety of the planes and helicopters using the air space. The FAA will require a Notice of Proposed Construction or Alteration (Form 7460-1); and after review of the notice, the FAA will issue either a Determination of No Hazard to Air Navigation or a Notice of Presumed Hazard. This, along with other required permits, authorizations, and evidence would be provided to the BLM prior to issuance of a Notice to Proceed. The obstruction evaluation/airport airspace analysis would determine whether a structure or span exceeds or is within the criteria identified by the FAA, refer to Section 3.2.9 for further discussion.

In addition, the Navy provided comments on the Draft EIS indicating a preference for colocation of the B2H Project with existing aboveground infrastructure to minimize impacts on existing flight patterns and training operations (Appendix K). Coordination with owners of existing utilities would be necessary during design and construction to avoid conflicts. The Applicant plans to coordinate closely with the Navy regarding entry agreement for survey work, the need for a new land-use agreement, siting and design of transmission line structures, structure placement, and construction staging activities.

Ground-disturbing activities associated with construction, operation, and maintenance of the Applicant's Proposed Action Alternative could result in a risk associated with unexploded ordnance. Specifically, effects of the Applicant's Proposed Action Alternative include the need for NWSTF Boardman to undergo extensive underground ordnance clearance and disposal efforts. To reduce this risk, the Applicant plans to repurpose the same 90-foot right-of-way currently occupied by BPA's 69-kV transmission line. In addition, the Applicant plans to utilize the existing firebreak areas for staging of construction, operation, and activities to limit ground disturbing to areas that have been cleared of unexploded ordnance. However, the Navy has indicated that an Explosives Safety and Munitions Response plan would be required by the Applicant. In addition, the Navy assumes that any ground disturbance, even in areas previously disturbed, would require UXO protocols (K. Mathes, email communication with NWSTF Boardman, April 12 and 21, 2016).

Variations S1-B1 and S1-B2

Impacts on military training in special-use airspace would be the same as those discussed for the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Design Option 1 removes approximately 12.2 miles of the existing 69-kV line and leaving this portion of the right-of-way clear of transmission line infrastructure. The transmission line would be reconstructed on the east side of Bombing Range Road as a double-circuit 230-kV line. The Applicant has indicated that the structures would have a span of 400 to 600 feet and be no taller than 100 feet. The proposed Option 1 would be colocated with the B2H Project 500-kV line. Colocation of these lines would not result in additional conflicts or obstacles for aerial training activities due to their proximity to each other. The nature of impacts would be the same as those discussed for the Applicant's Proposed Action Alternative.

Design Option 2

Option 2 would completely remove the existing 69-kV line (15.6 miles) from the west side of Bombing Range Road. The line would be reconstructed on the east side of Bombing Range Road as a double-circuit 230-kV line. The right-of-way on NWSTF Boardman property would repurposed for construction of the B2H Project 500-kV line. The new 230-kV would be colocated with the B2H Project 500-kV line. Colocation of these lines would not result in additional conflicts or obstacles for aerial training activities due to their proximity to each other. The nature of impacts would be the same as those discussed for the Applicant's Proposed Action Alternative.

Design Option 3

Option 3 would completely remove the existing 69-kV line (15.6 miles) from the west side of Bombing Range Road. The line would be reconstructed on the east side of Bombing Range Road as a double-circuit 230-kV line. The right-of-way on NWSTF Boardman property would repurposed for construction of the B2H Project 500-kV line. In addition, a new step down station would be constructed near the southern terminus of Bombing Range Road. The new 230-kV would be colocated with the B2H Project 500-kV line. Colocation of these lines would not result in additional conflicts or obstacles for aerial training activities due to their proximity to each other. The nature of impacts would be the same as those discussed for the Applicant's Proposed Action Alternative.

East of Bombing Range Road Alternative

Impacts would be similar to those discussed for the Applicant's Proposed Action Alternative since the East of Bombing Range Road Alternative crosses the same amount (15.1 miles) of special-use airspace. However, the East of Bombing Range Road Alternative would be built on privately owned (and small portion of state) land east of Bombing Range Road instead of on NWSTF Boardman property. At the southern terminus of Bombing Range Road, the alignment would continue east, exiting the boundaries of the MTRs within Segment 1, continuing along the same alignment as the Applicant's Proposed Action Alternative.

The East of Bombing Range Road Alternative would minimize encroachment on NWSTF Boardman Special-use Airspace through colocation of the proposed B2H Project with the existing end-user connection 115-kV transmission line. The use of private lands east of Bombing Range Road would not require a new land-use agreement between the Applicant and the Navy. Coordination with NWSTF Boardman and FAA, including an obstruction evaluation/airport airspace analysis, would be necessary to determine whether the East of Bombing Range Road Alternative meets FAA criteria.

In addition, NWSTF Boardman provided comment on the Draft EIS indicating a preference for colocation of the B2H Project with existing aboveground infrastructure to minimize impacts on existing flight patterns and training operations (Appendix K). Coordination with owners of existing utilities would be necessary during design and construction to avoid conflicts.

Applicant's Proposed Action – Southern Route Alternative

Effects on military training in special-use airspace from the Applicant's Proposed Action – Southern Route Alternative would be the same as those discussed for the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Effects on military training in special-use airspace would be the same as those discussed for the Applicant's Proposed Action Alternative: Design Option 1.

Design Option 2

Effects on military training in special-use airspace would be the same as those discussed for the Applicant's Proposed Action Alternative: Design Option 2.

Design Option 3

Effects on military training in special-use airspace would be the same as those discussed for the Applicant's Proposed Action Alternative: Design Option 3.

West of Bombing Range Road – Southern Route Alternative

Impacts on military training in special-use airspace from the West of Bombing Range Road – Southern Route Alternative would be the same as those discussed for the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Effects would be the same as those described for the Applicant's Proposed Action Alternative: Design Option 1.

Design Option 2

Effects would be the same as those described for the Applicant's Proposed Action Alternative: Design Option 2.

Design Option 3

Effects would be the same as those described for the Applicant's Proposed Action Alternative: Design Option 3.

Longhorn Alternative

Impacts would be similar to those discussed for the Applicant's Proposed Action Alternative since the Longhorn Alternative also crosses special-use airspace (17.6 miles). The Longhorn Alternative crosses more special-use airspace than the Applicant's Proposed Action Alternative. The Longhorn Alternative is located 4.0 miles east of Bombing Range Road and would result in greater impact on special-use airspace operations. NWSTF Boardman provided comment indicating that the Longhorn Alternative would not be compatible with training operations and would result in additional obstacles in the existing flight patterns used for training (Appendix K).

Therefore, the Longhorn Alternative crosses more special-use airspace and creates a north-south obstacle resulting in a potential risk for collision with the B2H Project transmission lines. Coordination with NWSTF Boardman, other military users, and FAA, including an obstruction evaluation/airport airspace analysis, would be necessary to determine whether the Longhorn Alternative meets FAA criteria.

Interstate 84 Alternative and Variations

Impacts would be similar to those discussed for the Applicant's Proposed Action Alternative since the Interstate 84 Alternative also crosses special-use airspace. However, the Interstate 84 Alternative is located along the Interstate 84 to allow for colocation of the B2H Project with an existing transportation corridor. The addition of the B2H Project would create an east-west obstacle for special-use airspace operations along the interstate. The Interstate 84 Alternative exits the boundary of special-use airspace before it turns south toward Pilot Rock, Oregon. Coordination with NWSTF Boardman, other military, and FAA, including an obstruction evaluation/airport airspace analysis, would be necessary to determine whether the Interstate 84 Alternative meets FAA criteria.

Variation S1-A1 and Variation S1-A2 do not cross MTRs; therefore, no effects are anticipated to occur.

Interstate 84 – Southern Route Alternative

Impacts on military training in special-use airspace would be the same as those discussed for the Interstate 84 Alternative.

Conclusions

All alternative routes analyzed in Segment 1 cross MTRs, however Variations S1-B1, S1-B2, S1-A1, and S1-A2 do not cross MTRs.

Specially Designated Areas

Table 3-270 presents the miles crossed for specially designated areas for the alternatives and route variations in Segment 1.

Table 3-270. Specially Designated Areas in Segment 1—Morrow-Umatilla (miles crossed)

Alternative Route	Total Length (miles)	Area of Critical Environmental Concern	Wildlife Area	Research Natural Area
Applicant's Proposed Action	91.9	0.0	0.0	1.3
Variation S1-B1	*6.4*	*0.0*	*0.0*	*0.0*
Variation S1-B2	*6.4*	*0.0*	*0.0*	*0.0*
East of Bombing Range Road	92.3	0.0	0.0	0.0
Applicant's Proposed Action – Southern Route	99.1	0.0	0.0	1.3
West of Bombing Range Road – Southern Route	95.6	0.0	0.0	1.3
Longhorn	88.2	0.0	0.0	0.0
Interstate 84	84.7	0.0	0.0	0.0

Table 3-270. Specially Designated Areas in Segment 1—Morrow-Umatilla (miles crossed)				
Alternative Route	**Total Length (miles)**	**Area of Critical Environmental Concern**	**Wildlife Area**	**Research Natural Area**
Variation S1-A1	*18.5*	*0.0*	*0.0*	*0.0*
Variation S1-A2	*18.5*	*0.0*	*0.0*	*0.0*
Interstate 84 – Southern Route	93.4	0.0	0.0	0.0

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses 1.3 miles of the RNA – B on the NWTSF Boardman (Link 1-27). Management of the RNA prescribed in the NWTSF Boardman INRMP does not preclude transmission lines from crossing the RNA; however any development in RNA-B is not consistent with Navy management for the area as identified in the INRMP and underlying governing requirements of designated ecological reserves. Securing an easement across the RNA would require coordination with the Navy and The Nature Conservancy. As discussed in the Mitigation Planning and Effectiveness section, application of Mitigation Measures 1, 2, 5, 6, 8, 12, 13, 14, and 15 (refer to Table 2-13) on the resources present in this area would minimize the potential effects of the B2H Project and management of this area for the established objectives would not be precluded. Temporary disturbance to sensitive soils, wildlife, and vegetation during construction is anticipated in this RNA. Refer to Sections 3.2.3 and 3.2.4 for further information regarding potential effects on vegetation and wildlife in this RNA.

Although the Coyote Springs Wildlife Area is in the study corridor for this alternative, it is not anticipated this wildlife area would be affected by the B2H Project.

Variations S1-B1 and S1-B2

These variations do not cross any specially designated areas.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

Effects would be similar to those discussed for construction of the Applicant's Proposed Action Alternative; however, impacts would be limited to a smaller area associated with these design options. Additional temporary disturbance to sensitive soils, wildlife, and vegetation during removal of the existing 69-kV line would be anticipated.

East of Bombing Range Road Alternative

This alternative does not cross any specially designated areas.

Applicant's Proposed Action – Southern Route Alternative

This alternative crosses the same specially designated areas as the Applicant's Proposed Action Alternative and would have the same potential effects.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

Effects would be the same as those discussed for the Applicant's Proposed Action Alternative; however, impacts would be limited to a smaller area associated with these design options.

West of Bombing Range Road – Southern Route Alternative

This alternative crosses the same specially designated areas as the Applicant's Proposed Action Alternative and would have the same potential effects.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

Effects would be the same as those discussed for the Applicant's Proposed Action Alternative; however, impacts would be limited to a smaller area associated with these design options.

Longhorn Alternative

This alternative does not cross any specially designated areas.

Interstate 84 Alternative

This alternative does not cross any specially designated areas.

Variations S1-A1 and S1-A2

These variations do not cross any specially designated areas.

Interstate 84 – Southern Route Alternative

This alternative does not cross any specially designated areas.

Conclusions

The Applicant's Proposed Action Alternative, Applicant's Proposed Action – Southern Route Alternative, and West of Bombing Range Road – Southern Route Alternative cross RNA-B on NWSTF Boardman. Development in RNA-B is not consistent with Navy management for the area as identified in the INRMP and underlying governing requirements of designated ecological reserves. There is no discernable difference in impacts among the other alternative routes analyzed in Segment 1.

SEGMENT 2—BLUE MOUNTAINS

Land Ownership, Utility Corridors, and Parallel Facilities

Table 3-271 and Table 3-272 present the miles of land ownership and utility corridors crossed for the alternatives and route variations in Segment 2.

Table 3-271. Land Ownership and Utility Corridors in Segment 2—Blue Mountains (miles crossed)										
Alternative Route	Total Length (miles)	Land Ownership						Utility Corridors		
		Bureau of Land Management	Bureau of Reclamation	Department of Defense	U.S. Forest Service	State	Private	Resource Management Plan	West-Wide Energy Corridor	Percent within Utility Corridor
Applicant's Proposed Action	33.8	0.8	0.0	0.0	1.3	0.0	31.7	1.3	0.0	3.8
Variation S2-A1	*2.8*	*0.0*	*0.0*	*0.0*	*1.3*	*0.0*	*1.5*	*1.3*	*0.0*	*46.4*
Variation S2-A2	*2.9*	*0.0*	*0.0*	*0.0*	*2.5*	*0.0*	*0.4*	*2.5*	*0.0*	*86.2*
Variation S2-B1	*3.7*	*0.8*	*0.0*	*0.0*	*0.0*	*0.0*	*2.9*	*0.0*	*0.0*	*0.0*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*3.8*	*0.0*	*0.0*	*0.0*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*9.3*	*0.0*	*0.0*	*0.0*
Variation S2-C2	*8.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*8.8*	*0.0*	*0.0*	*0.0*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.3*	*0.0*	*0.0*	*0.0*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.6*	*0.0*	*0.0*	*0.0*
Variation S2-F1	*12.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*12.1*	*0.0*	*0.0*	*0.0*
Variation S2-F2	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*12.2*	*0.0*	*0.0*	*0.0*
Glass Hill	33.7	0.5	0.0	0.0	1.3	0.0	31.9	1.3	0.0	3.9
Variation S2-D1	*4.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*4.3*	*0.0*	*0.0*	*0.0*
Variation S2-D2	*4.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*4.1*	*0.0*	*0.0*	*0.0*
Mill Creek	34.0	0.0	0.0	0.0	2.5	0.0	31.5	2.5	0.0	7.4

Applicant's Proposed Action Alternative

This alternative predominately crosses private lands (31.7 miles). Other jurisdictions crossed include USFS lands.

This alternative is within a RMP utility corridor for USFS for 1.3 miles. The Applicant's Proposed Action Alternative is sited parallel (within 300 to 2,000 feet of route centerline) to existing roads (18.6 miles) and 230-kV transmission lines (10 miles).

Variation S2-A1

Variation S2-A1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation predominately crosses private (1.5 miles) and USFS (1.3 miles) lands.

Variation S2-A1 is within a RMP utility corridor for USFS for 1.3 miles and parallels Interstate 84 for 3 miles to an area west of Hilgard Junction State Park.

Table 3-272. Parallel Facilities in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Parallel Linear Facilities (within 300 feet of reference centerline) (miles)							Parallel Linear Facilities (from 300 feet to 2,000 feet from reference centerline) (miles)							Total Miles Parallel Linear Facilities (within 300 feet)	Total Miles Parallel Linear Facilities (from 300 to 2,000 feet)	Total Number of Linear Facility Crossings
		69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads	69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads			
Applicant's Proposed Action	33.8	0.0	0.1	0.0	0.3	0.0	0.4	4.2	0.0	0.7	0.0	10.3	0.0	2.7	18.6	4.9	26.3	30
Variation S2-A1	*2.8*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.7*	*0.0*	*0.0*	*0.7*	*0.2*	*2.7*	*1*
Variation S2-A2	*2.9*	*0.0*	*0.0*	*0.0*	*2.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*2.9*	*0.0*	*1*
Variation S2-B1	*3.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.5*	*2.3*	*0.5*	*2.8*	*3*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*	*2.5*	*0.0*	*0.1*	*1.1*	*0.0*	*0.0*	*0.0*	*1.0*	*0.0*	*1.2*	*1.8*	*2.6*	*1.2*	*4*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*1.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.2*	*6.4*	*1.9*	*7.0*	*8*
Variation S2-C2	*8.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.7*	*0.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.2*	*5.7*	*1.6*	*7.0*	*6*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*2.0*	*0.2*	*2.0*	*1*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*	*0.0*	*0.0*	*0.0*	*1.8*	*0.0*	*0.0*	*2.1*	*0.4*	*2.2*	*2*
Variation S2-F1	*12.1*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.2*	*1.3*	*0.0*	*0.7*	*0.0*	*7.1*	*0.0*	*0.0*	*4.9*	*1.4*	*9.0*	*12*
Variation S2-F2	*12.2*	*0.0*	*0.1*	*0.0*	*11.5*	*0.0*	*0.1*	*0.9*	*0.0*	*0.7*	*0.0*	*0.7*	*0.0*	*0.0*	*5.0*	*11.5*	*0.7*	*12*
Glass Hill	33.7	0.0	0.1	0.0	0.3	0.0	*0.2*	*5.0*	0.0	0.7	0.0	*10.3*	*0.0*	*1.0*	*18.4*	*5.5*	*24.9*	*31*
Variation S2-D1	*4.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.0*	*2.6*	*0.4*	*2.6*	*3*
Variation S2-D2	*4.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.3*	*2.3*	*0.7*	*2.3*	*4*
Mill Creek	34.0	0.0	0.1	0.0	26.9	0.0	0.5	4.4	0.0	0.7	0.0	4.0	0.0	3.3	16.7	27.8	5.6	36

Variation S2-A2

Variation S2-A2 predominately crosses USFS (2.5 miles) lands.

Variation S2-A2 is located within an RMP utility corridor for USFWS for 2.5 miles. Variation S2-A2 is colocated with existing 230-kV transmission line for 2.9 miles before rejoining the Applicant's Proposed Action Alternative west of Hilgard Junction State Park.

Variation S2-B1

Variation S2-B1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation predominately crosses private lands (2.9 miles) and BLM-administered lands (0.8 mile).

Variation S2-B1 is not located in a utility corridor; however, this variation is located within 0.5 mile of an existing 230-kV transmission line.

Variation S2-B2

Variation S2-B2 is similar to Variation S2-B1 but is located solely on private lands.

Variation S2-B2 is not located within a designated utility corridor. This variation separates from the Applicant's Proposed Action Alternative to more closely parallel the existing 230-kV transmission line.

Variation S2-C1

Variation S2-C1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation solely crosses private lands (9.3 miles) and is not located within a utility corridor.

This variation provides some opportunity to parallel existing roadway facilities within 300 of centerline and 300 to 2,000 feet from centerline of the proposed route.

Variation S2-C2

Variation S2-C2 solely crosses private lands (8.8 miles) and is not located within a utility corridor.

This variation provides less opportunity for colocation with existing roadway facilities than the Applicant's Proposed Action Alternative.

Variation S2-E1

Variation S2-E1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation solely crosses private lands (2.3 miles) and is not located within a utility corridor.

This variation provides minimal opportunity for colocation with existing facilities.

Variation S2-E2

Variation S2-E2 solely crosses private lands (2.6 miles).This variation separates from the Applicant's Proposed Action Alternative and is not located within a utility corridor.

This variation provides less opportunity for colocation with existing roadway facilities than the Applicant's Proposed Action Alternative.

Variation S2-F1

Variation S2-F1 shares the same alignment as all of the Segment 2 alternatives. This variation solely crosses private lands (12.1 miles) and is not located within a utility corridor.

This variation provides less opportunity for colocation with existing roadway facilities than the Applicant's Proposed Action Alternative.

Variation S2-F2

Variation S2-F2 solely crosses private lands (12.2 miles) and is not located within a utility corridor.

This variation provides the more opportunity for colocation with existing transmission line facilities than the other route variations. Variation S2-F2 separates from the Applicant's Proposed Action Alternative to parallel an existing 230-kV transmission line for 12 miles.

Glass Hill Alternative

The Glass Hill Alternative separates from the Applicant's Proposed Action Alternative to provide greater distance from Ladd Marsh and address concerns about visibility of the transmission line from La Grande. This alternative is located predominately on private lands (31.9 miles). The Glass Hill Alternative is located within an USFS RMP corridor for 1.3 miles.

This alternative is sited parallel (300 to 2,000 feet) to an existing 230-kV transmission line for approximately 10 miles and existing roadway for approximately 18 miles.

Variation S2-D1

Variation S2-D1 shares the same alignment as the Glass Hill Alternative. Therefore impacts on land ownership would be the same as those described for the Glass Hill Alternative.

Variation S2-D2

Variation S2-D2 is located solely on private lands (4.1 miles) and is not located within a designated utility corridor.

This variation provides less opportunity for colocation or parallel existing utility and roadway facilities than the Glass Hills Alternative.

Mill Creek Alternative

The Mill Creek Alternative separates from the Applicant's Proposed Action Alternative to parallel an existing 230-kV line. This alternative crosses predominately private land (31.5) and is located within a USFS RMP corridor for 2.5 miles.

The Mill Creek Alternative provides the most opportunity to parallel an existing utilities within 300 feet of the B2H Project in Segment 2.

Conclusions

There is little difference with regard to land ownership among the alternative routes and variations within Segment 2. Additionally, Segment 2 alternatives cross between 1.3 miles (Applicant's Proposed Action Alternative and the Glass Hill Alternative) and 2.5 miles (Mill Creek Alternative) of designated

utility corridors. The total miles of parallel linear facilities within 2,000 feet of Segment 2 alternative routes range from 30.4 miles (Glass Hill Alternative) to 33.4 miles (Mill Creek Alternative). The Mill Creek Alternative would use more designated utility corridors, and would parallel more existing linear facilities among the alternative routes analyzed in Segment 2.

Existing Land Use

Table 3-273 and Table 3-274 present the residual impacts on existing land use types and structures for all alternative routes and route variations in Segment 2. For locations of residual impacts described below refer to MV-13.

Table 3-273. Existing Land Use Inventory Data and Overall Residual Impacts for Segment 2—Blue Mountains

Alternative Route	Total Length (Miles)	Resource Inventory for Existing Land Use GAP Types (miles crossed)						Overall Residual Impacts for Existing Land Use GAP Types (miles crossed)		
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland	None	Low	Moderate
Applicant's Proposed Action	33.8	0.6	0.0	0.1	14.0	1.6	17.5	0.0	19.2	14.6
Variation S2-A1	*2.8*	*0.0*	*0.0*	*0.0*	*1.6*	*0.8*	*0.4*	*0.0*	*1.2*	*1.6*
Variation S2-A2	*2.9*	*0.0*	*0.0*	*0.0*	*2.1*	*0.5*	*0.3*	*0.0*	*0.8*	*2.1*
Variation S2-B1	*3.7*	*0.0*	*0.0*	*0.0*	*2.0*	*0.0*	*1.7*	*0.0*	*1.7*	*2.0*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*	*2.2*	*0.0*	*1.6*	*0.0*	*1.6*	*2.2*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.0*	*6.4*	*0.0*	*2.9*	*0.0*	*2.9*	*6.4*
Variation S2-C2	*8.8*	*0.0*	*0.0*	*0.0*	*6.1*	*0.0*	*2.7*	*0.0*	*2.7*	*6.1*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*	*1.6*	*0.0*	*0.7*	*0.0*	*0.7*	*1.6*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.0*	*1.4*	*0.0*	*1.2*	*0.0*	*1.2*	*1.4*
Variation S2-F1	*12.1*	*0.5*	*0.0*	*0.1*	*0.7*	*0.8*	*10.0*	*0.0*	*10.9*	*1.2*
Variation S2-F2	*12.2*	*0.0*	*0.0*	*0.1*	*0.2*	*0.7*	*11.2*	*0.0*	*12*	*0.2*
Glass Hill	33.7	0.6	0.2	0.1	12.8	1.6	18.4	0.0	20.3	13.4
Variation S2-D1	*4.3*	*0.0*	*0.0*	*0.0*	*3.7*	*0.0*	*0.6*	*0.0*	*0.6*	*3.7*
Variation S2-D2	*4.1*	*0.0*	*0.0*	*0.0*	*3.2*	*0.7*	*0.2*	*0.0*	*0.9*	*3.2*
Mill Creek	34.0	0.4	0.1	0.2	10.5	2.1	20.7	0.0	23.1	10.9

Table 3-274. Residual Impacts for Existing Land Use Structures for Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Residual Impacts for Each Structure Type (miles crossed)																		Overall Residual Impacts on Structures (miles crossed)		
		Building (Non-residence)		Other		Residential		Rest Stop		Mining/ Extraction		Outstructure		Communication Facility		Power Substation		Windmill				
		None	Low	None	Moderate	None	Moderate	None	Moderate	None	Low	None	Low	None	Low	None	Low	None	Low	None	Low	Moderate
Applicant's Proposed Action	33.8	33.8	0.0	33.8	0.0	33.8	0.0	33.8	0.0	33.8	0.0	33.7	0.1	33.8	0.0	33.8	0.0	33.8	0.0	33.7	0.1	0.0
Variation S2-A1	*2.8*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*0.0*
Variation S2-A2	*2.9*	*2.9*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*	*0.0*
Variation S2-B1	*3.7*	*3.7*	*0.0*	*3.7*	*0.0*	*3.7*	*0.0*	*3.7*	*0.0*	*3.7*	*0.0*	*3.7*	*0.0*	*3.7*	*0.0*	*3.7*	*0.0*	*3.7*	*0.0*	*3.7*	*0.0*	*0.0*
Variation S2-B2	*3.8*	*3.8*	*0.0*	*3.8*	*0.0*	*3.8*	*0.0*	*3.8*	*0.0*	*3.8*	*0.0*	*3.8*	*0.0*	*3.8*	*0.0*	*3.8*	*0.0*	*3.8*	*0.0*	*3.8*	*0.0*	*0.0*
Variation S2-C1	*9.3*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*0.0*
Variation S2-C2	*8.8*	*8.8*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*	*0.0*
Variation S2-E1	*2.3*	*2.3*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*0.0*
Variation S2-E2	*2.6*	*2.6*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*0.0*
Variation S2-F1	*12.1*	*12.1*	*0.0*	*12.1*	*0.0*	*12.1*	*0.0*	*12.1*	*0.0*	*12.1*	*0.0*	*12.0*	*0.1*	*12.1*	*0.0*	*12.1*	*0.0*	*12.1*	*0.0*	*12.0*	*0.1*	*0.0*
Variation S2-F2	*12.2*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.1*	*0.1*	*12.2*	*0.0*	*12.1*	*0.1*	*0.0*
Glass Hill	33.7	33.7	0.0	33.7	0.0	33.7	0.0	33.7	0.0	33.7	0.0	33.6	0.1	33.7	0.0	33.7	0.0	33.7	0.0	33.6	0.1	0.0
Variation S2-D1	*4.3*	*4.3*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*	*0.0*
Variation S2-D2	*4.1*	*4.1*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*	*0.0*
Mill Creek	34.0	34.0	0.0	34.0	0.0	34.0	0.0	34.0	0.0	34.0	0.0	34.0	0.0	34.0	0.0	33.9	0.1	34.0	0.0	33.9	0.1	0.0

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would result in 14.6 miles of moderate impacts on existing land uses where the reference centerline of the route crosses forest/woodland and agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These temporary impacts associated with construction could include detouring of roads, removal of fencing, or non-intentional damage to property. In some cases, access to existing forest/woodland or agricultural operations may be periodically hindered in areas where public and employee access is prohibited for safety reasons. Impacts resulting from the operation of the Applicant's Proposed Action Alternative would likely be minimal as agricultural operations could persist adjacent to and within areas of the right-of-way where transmission facilities could span agricultural features. No residual high impacts associated with this alternative would be expected. Refer to Table 3-234 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 2.

Variation S2-A1

Variation S2-A1 would result in 1.6 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-A1 would be expected.

Variation S2-A2

Variation S2-A2 would result in 2.1 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-A2 would be expected.

Variation S2-C1

Variation S2-C1 would result in 6.4 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-C1 would be expected.

Variation S2-C2

Variation S2-C2 would result in 6.1 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-C2 would be expected.

Variation S2-E1

Variation S2-E1 would result in 1.6 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-E1 would be expected.

Variation S2-E2

Variation S2-E2 would result in 1.4 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-E2 would be expected.

Variation S2-F1

Variation S2-F1 would result in 1.2 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-F1 would be expected.

Variation S2-F2

Variation S2-F1 would result in 1.2 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-F2 would be expected.

Glass Hill Alternative

The Glass Hill Alternative would result in 13.4 miles of moderate impacts on existing land uses where the reference centerline of the route crosses forest/woodland and agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-F1 would be expected. Refer to Table 3-234 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 2.

Variation S2-D1

Variation S2-D1 would result in 3.7 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-D1 would be expected.

Variation S2-D2

Variation S2-D2 would result in 3.2 miles of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with Variation S2-D2 would be expected.

Mill Creek Alternative

The Glass Hill Alternative would result in 10.9 miles of moderate impacts on existing land uses where the reference centerline of the route crosses forest/woodland and agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No residual high impacts associated with the Mill Creek Alternative would be expected. Refer to Table 3-234 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 2.

Conclusions

In Segment 2, no residual high impacts are anticipated on existing land uses for any alternative routes or variations. Moderate residual impacts associated with Segment 1 alternatives would occur where the reference centerline crosses agricultural or forested/woodland areas. Estimated moderate effects range from 33.7 miles (Glass Hill Alternative) to 34.0 miles (Mill Creek Alternative); and, miles crossed of existing land uses that would result in moderate residual impacts range from approximately 10.9 miles (Mill Creek Alternative) to 14.6 miles (Applicant's Proposed Action Alternative). The alternative routes are comparable in length. Among the alternative routes considered, the Mill Creek Alternative would result in the least amount of moderate residual impacts on existing land uses.

Timber Management

Applicant's Proposed Action Alternative

All of the potential impacts on timber management presented in Section 3.2.6.1 could occur wherever forested lands are crossed by the Applicant's Proposed Action Alternative in Segment 2. These impacts can be summarized as a potential loss of harvestable timber, a loss of future timber revenue, and potential constraints on certain types of timber harvest operations adjacent to the right-of-way for safety near transmission components.

Table 3-235 provides miles crossed of forested lands on each alternative route in Segment 2. Impacts on lands administered by the USFS would be evaluated under the management direction in the LRMP. Impacts on forested private lands would vary with the landowner and their individual concerns. The Applicant will negotiate with the landowner regarding compensation for timber values lost or reduced as a result of the B2H Project.

Goal 4 of the Oregon Statewide Local Planning Goals includes the following requirements for siting transmission lines on forested lands:

- The proposed use must not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands.
- The proposed use must not significantly increase fire hazard or significantly increase fire-suppression costs or significantly increase risks to fire-suppression personnel.
- The proposed use has the least impact on nearby or adjoining forest or agricultural lands.
- The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized.
- The amount of forest lands used to site access roads, service corridors, and structures is minimized.
- The risks associated with wildfire are minimized.

The B2H Project would be compatible with Power Transportation Facilities Management Area (Management Area 17) where it passed through the Wallowa-Whitman National Forest utility corridor identified for transport of gas, oil and electricity (USFS 1990). For areas outside of this USFS utility corridor, the Applicant would ensure that significant changes in cost or forest practices do not result

from the B2H Project through establishment of right-of-way fees and compensation to landowners,. Design features of the B2H Project for environmental protection address the requirements to minimize fire hazard, risks to fire-suppression personnel, impacts on forest operations, and the amount of forested lands used for access roads and other components.

Other Alternative Routes and Variations in Segment 2

Potential impacts on timber management on all other alternative routes and variations in Segment 2 would be similar, wherever forested vegetation is crossed.

Conclusions

There is no discernable difference in impacts on timber management among the alternative routes and variations analyzed in Segment 2.

Fire Management

Refer to the discussion in the Effects Common to All Alternatives section.

Conclusions

There is no discernable difference in impacts on fire management among the alternative routes and variations analyzed in Segment 2.

Zoning

The result of the effects analysis for zoning for the alternatives and route variations in Segment 2 are described below in terms of miles crossed of EFU or ERU zones. As discussed in Effects Common to All Alternatives for Zoning there are no identified zones crossed that prohibit the development of the B2H Project facilities; however, in areas where the B2H Project crosses EFU or ERU zones, the Applicant would have to demonstrate necessity as described in Section 3.2.6.2 Regulatory Framework. In all cases the potential effect of not demonstrating necessity could result in non-conformance with Oregon Statewide Planning Goals. Refer to MV-13 for locations of EFU and ERU zoning.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses approximately 4.9 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

None of the route variations for the Applicant's Proposed Action Alternative crosses any EFU zoning, thus no identifiable impacts would occur on property zoned for EFU.

Glass Hill Alternative

The Glass Hill Alternative crosses 4.9 miles of EFU zoning.

Variation S2-D1

The Variation S2-D1 and Variation S2-D2 would not cross any EFU zoning, thus no identifiable impacts would occur on property zoned for EFU.

Mill Creek Alternative

The Glass Hill Alternative crosses 3.0 miles of EFU zoning.

Conclusions

Because the Applicant has elected to demonstrate compliance with statewide planning goals by under Path B, the EFSC would determine whether the project complies with applicable Land Conservation and Development Commission rules and land-use statutes (including statewide planning goals), and any applicable, substantive criteria from each county's local comprehensive plan and land-use regulations. Relevant to zoning, there is no notable difference among alternative routes or variations analyzed in Segment 2. All alternative routes cross similar distances of EFU zones.

Military Training

Table 3-271 describes the MTRs crossed for all Segment 2 alternatives and route variations.

Applicant's Proposed Action Alternative

Potential effects from the Applicant's Proposed Action Alternative would include the potential for restriction of aircraft movement during training operations. In addition the presence of transmission line structures and conductors within special-use airspace would create potential collision hazards with B2H Project facilities.

The project description includes structure-design modification to meet the requirements of NWSTF Boardman and the FAA. Structure-design modification would be effective in meeting NWSTF Boardman's request to limit structure heights to 100 feet or less and allowing NWSTF Boardman to meet their training mission (M. Vaughn, Idaho Power Company, email communication with author, 2016). In addition, structures, conductors, and/or shield wires would be marked with high-visibility devices (i.e., markerballs or other marking devices) where required by NWSTF Boardman and/or FAA.

To determine whether the B2H Project would be a hazard to these operations, the Applicant would conduct an obstruction evaluation/airport airspace analysis in coordination with the FAA. This, along with other required permits, authorizations, and evidence would be provided to the BLM prior to issuance of a Notice to Proceed. The obstruction evaluation/airport airspace analysis would determine whether a transmission line structure or span exceeds or is within the criteria identified by the FAA, refer to Section 3.2.9 for further discussion regarding airport facilities.

In addition, NWSTF Boardman has indicated a preference for colocation of the B2H Project with existing aboveground infrastructure to minimize impacts on existing flight patterns and training operations (M. Vaughn, Idaho Power Company, email communication with author, 2016). Coordination with owners of existing utilities would be necessary during design and construction to avoid conflicts.

Variations S2-A1 and S2-A2

Effects on military training in special-use airspace would be the same as those described for the Applicant's Proposed Action Alternative.

Variations S2-B1, S2-B2, S2-C1, S2-C2, S2-E1, S2-E2, S2-F1, and S2-F2

No other variations cross MTRs; therefore, no effects are anticipated to occur.

Glass Hill Alternative

Effects on military training in special-use airspace would be similar to those described for the Applicant's Proposed Action Alternative; however, a portion of the Glass Hill Alternative is located farther east, Link 2-10.

Variation S2-D1 and Variation S2-D2 would not cross MTRs; therefore, no effects are anticipated to occur from these route variations.

Mill Creek Alternative

Effects on military training in special-use airspace would be the same as those described for the Applicant's Proposed Action Alternative.

Conclusions

Some of the variations of the Applicant's Proposed Action Alternative and Glass Hill Alternative avoid MTRs. However, there is no notable difference in impacts among alternative routes analyzed in Segment 2.

Specially Designated Areas

Table 3-275 presents the miles crossed for specially designated areas for the alternatives and route variations in Segment 2.

Table 3-275. Specially Designated Areas in Segment 2—Blue Mountains (miles crossed)

Alternative Route	Total Length (miles)	Area of Critical Environmental Concern	Wildlife Area	Research Natural Area
Applicant's Proposed Action	33.8	0.0	0.0	0.0
Variation S2-A1	*2.8*	*0.0*	*0.0*	*0.0*
Variation S2-A2	*2.9*	*0.0*	*0.0*	*0.0*
Variation S2-B1	*3.7*	*0.0*	*0.0*	*0.0*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.0*
Variation S2-C2	*8.8*	*0.0*	*0.0*	*0.0*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.0*
Variation S2-F1	*12.1*	*0.0*	*0.0*	*0.0*
Variation S2-F2	*12.2*	*0.0*	*0.0*	*0.0*
Glass Hill	33.7	0.0	0.0	0.0
Variation S2-D1	*4.3*	*0.0*	*0.0*	*0.0*
Variation S2-D2	*4.1*	*0.0*	*0.0*	*0.0*
Mill Creek	34.0	0.0	1.0	0.0

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative and route variations do not cross any specially designated areas.

Glass Hill Alternative

The Glass Hill Alternative and route variations do not cross any specially designated areas.

Mill Creek Alternative

The Mill Creek Alternative crosses 1.0 mile of the Ladd Marsh Wildlife Area (Link 2-53). The Ladd Marsh Wildlife Area Management Plan does not preclude transmission lines from crossing the wildlife area; however securing an easement across the wildlife area would require coordination with the ODFW. As discussed in the Mitigation Planning and Effectiveness section, application of Mitigation Measures 1, 2, 5, 6, 8, 12, 13, 14, and 15 (refer to Table 2-13) on the resources present in this area would minimize the potential effects of the B2H Project and management of the area for the established objectives would not be precluded. While temporary disturbance to sensitive soils, wildlife, and vegetation during construction is anticipated, it is anticipated the Applicant would coordinate with ODFW to ensure the B2H Project is compatible with the wildlife resources long-term, in accordance with the management plan for this wildlife area. Refer to Section 3.2.4 for further description of potential effects on Ladd Marsh.

Conclusions

The Mill Creek Alternative crosses the Ladd Marsh Wildlife Area. Transmission lines are not precluded from crossing the wildlife area; however securing an easement across the wildlife area would require coordination with the ODFW. There is no discernable difference in impacts among the other alternative routes analyzed in Segment 2.

SEGMENT 3—BAKER VALLEY

Land Ownership, Utility Corridors, and Parallel Facilities

Table 3-276 and Table 3-277 present the miles of land ownership and utility corridors crossed for the alternatives and route variations in Segment 3.

Table 3-276. Land Ownership and Utility Corridors in Segment 3—Baker Valley (miles crossed)										
Alternative Route	Total Length (miles)	Land Ownership						Utility Corridors		
		Bureau of Land Management	Bureau of Reclamation	Department of Defense	U.S. Forest Service	State	Private	Resource Management Plan	West-Wide Energy Corridor	Percent within Utility Corridor
Applicant's Proposed Action	55.2	15.1	0.0	0.0	0.0	0.0	40.1	0.0	1.4	2.5
Variation S3-A1	*12.4*	*1.3*	*0.0*	*0.0*	*0.0*	*0.0*	*11.1*	*0.0*	*0.0*	*0.0*
Variation S3-A2	*12.2*	*0.4*	*0.0*	*0.0*	*0.0*	*0.0*	*11.8*	*0.0*	*0.0*	*0.0*
Variation S3-B1	*13.9*	*5.5*	*0.0*	*0.0*	*0.0*	*0.0*	*8.4*	*0.0*	*0.0*	*0.0*
Variation S3-B2	*14.4*	*0.3*	*0.0*	*0.0*	*0.0*	*0.0*	*14.1*	*0.0*	*0.0*	*0.0*
Variation S3-B3	*14.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*14.7*	*0.0*	*0.0*	*0.0*
Variation S3-B4	*14.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*14.3*	*0.0*	*0.0*	*0.0*
Variation S3-B5	*14.0*	*0.3*	*0.0*	*0.0*	*0.0*	*0.0*	*13.7*	*0.0*	*0.0*	*0.0*
Variation S3-C1	*21.1*	*7.6*	*0.0*	*0.0*	*0.0*	*0.0*	*13.5*	*0.0*	*1.4*	*6.6*
Variation S3-C2	*21.7*	*5.8*	*0.0*	*0.0*	*0.0*	*0.0*	*15.9*	*0.0*	*2.5*	*11.5*
Variation S3-C3	*21.1*	*5.7*	*0.0*	*0.0*	*0.0*	*0.0*	*15.4*	*0.0*	*1.4*	*6.6*
Variation S3-C4	*21.4*	*6.0*	*0.0*	*0.0*	*0.0*	*0.0*	*15.4*	*0.0*	*1.4*	*6.5*
Variation S3-C5	*21.0*	*7.2*	*0.0*	*0.0*	*0.0*	*0.0*	*13.8*	*0.0*	*0.0*	*0.0*
Variation S3-C6	*24.7*	*10.5*	*0.0*	*0.0*	*0.0*	*0.0*	*14.2*	*0.0*	*0.0*	*0.0*
Flagstaff A	55.0	9.9	0.0	0.0	0.0	0.0	45.4	0.0	1.4	2.5
Timber Canyon	70.3	8.4	0.0	0.0	19.7	0.0	42.2	0.0	1.4	2.0
Flagstaff A – Burnt River Mountain	55.3	8.0	0.0	0.0	0.0	0.0	47.3	0.0	1.4	2.5
Flagstaff B	56.0	9.6	0.0	0.0	0.0	0.0	46.4	0.0	1.4	2.5
Flagstaff B – Burnt River West	55.7	8.3	0.0	0.0	0.0	0.0	47.4	0.0	0.0	0.0
Flagstaff B – Durkee	59.6	12.5	0.0	0.0	0.0	0.0	47.1	0.0	0.0	0.0

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses private lands (40.1 miles). Other jurisdictions crossed include BLM-administered lands (15.1 miles).

This alternative is not located within a designated utility corridor. The Applicant's Proposed Action Alternative is colocated (within 300 feet from centerline) with an existing 138-kV transmission line for approximately 11 miles. This alternative also is sited parallel (within 300 to 2,000 feet from route centerline) to a 230-kV transmission line (13.8 miles) a 69-kV transmission line (10 miles), and roadway facilities (36 miles).

Table 3-277. Parallel Facilities in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Parallel Linear Facilities (within 300 feet of reference centerline) (miles)							Parallel Linear Facilities (from 300 feet to 2,000 feet from reference centerline) (miles)							Total Miles Parallel Linear Facilities (within 300 feet)	Total Miles Parallel Linear Facilities (from 300 to 2,000 feet)	Total Number of Linear Facility Crossings
		69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads	69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads			
Applicant's Proposed Action	55.2	3.1	0.0	11.4	0.5	0.0	0.1	6.9	10.9	0.0	6.5	13.9	0.0	2.0	36.1	20.2	28.4	59
Variation S3-A1	*12.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.9*	*0.0*	*0.0*	*0.0*	*12.3*	*0.0*	*0.0*	*8.2*	*1.9*	*10.4*	*10*
Variation S3-A2	*12.2*	*0.0*	*0.0*	*0.0*	*11.6*	*0.0*	*0.0*	*1.5*	*0.0*	*0.0*	*0.0*	*0.6*	*0.0*	*0.0*	*8.3*	*11.6*	*0.6*	*8*
Variation S3-B1	*13.9*	*0.0*	*0.0*	*0.0*	*0.5*	*0.0*	*0.0*	*1.7*	*0.3*	*0.0*	*0.4*	*1.6*	*0.0*	*0.0*	*9.0*	*2.1*	*9.2*	*12*
Variation S3-B2	*14.4*	*0.0*	*0.0*	*2.3*	*1.7*	*0.0*	*0.0*	*2.7*	*3.0*	*0.0*	*1.0*	*7.5*	*0.0*	*0.0*	*7.5*	*5.4*	*8.6*	*16*
Variation S3-B3	*14.7*	*0.0*	*0.0*	*3.3*	*4.2*	*0.0*	*0.0*	*2.8*	*3.7*	*0.0*	*0.4*	*5.4*	*0.0*	*0.1*	*8.0*	*8.9*	*5.5*	*16*
Variation S3-B4	*14.3*	*0.0*	*0.0*	*3.3*	*5.5*	*0.0*	*0.0*	*2.3*	*3.7*	*0.0*	*0.4*	*5.5*	*0.0*	*0.1*	*8.4*	*9.5*	*4.8*	*14*
Variation S3-B5	*14.0*	*0.0*	*0.0*	*2.3*	*0.8*	*0.0*	*0.0*	*1.9*	*3.0*	*0.0*	*1.0*	*8.8*	*0.0*	*0.0*	*7.8*	*3.9*	*9.5*	*12*
Variation S3-C1	*21.1*	*0.5*	*0.0*	*7.9*	*0.0*	*0.0*	*0.1*	*2.8*	*9.4*	*0.0*	*2.0*	*0.0*	*0.0*	*2.0*	*14.0*	*10.3*	*7.1*	*29*
Variation S3-C2	*21.7*	*3.9*	*0.0*	*10.0*	*0.0*	*0.0*	*0.1*	*3.3*	*8.6*	*0.0*	*2.3*	*0.0*	*0.0*	*2.0*	*14.4*	*13.3*	*5.0*	*35*
Variation S3-C3	*21.1*	*0.6*	*0.0*	*8.2*	*0.0*	*0.0*	*1.2*	*2.2*	*5.7*	*0.0*	*3.1*	*0.0*	*0.0*	*7.1*	*12.2*	*10.6*	*6.2*	*36*
Variation S3-C4	*21.4*	*0.6*	*0.0*	*8.2*	*0.0*	*0.0*	*1.1*	*2.6*	*5.7*	*0.0*	*3.1*	*0.0*	*0.0*	*6.6*	*12.1*	*10.9*	*6.2*	*39*
Variation S3-C5	*21.0*	*0.2*	*0.0*	*0.3*	*0.0*	*0.0*	*0.1*	*1.6*	*1.4*	*0.0*	*1.8*	*0.0*	*0.0*	*0.7*	*9.5*	*2.2*	*9.3*	*15*
Variation S3-C6	*24.7*	*0.2*	*0.0*	*0.3*	*0.0*	*0.0*	*0.1*	*2.8*	*1.4*	*0.0*	*1.3*	*0.0*	*0.0*	*0.8*	*9.9*	*3.4*	*9.8*	*22*
Flagstaff A	55.3	3.1	0.0	13.7	0.8	0.0	0.1	7.1	13.6	0.0	7.2	21.1	0.0	2.0	34.9	22.1	28.7	59
Timber Canyon	70.3	0.5	0.0	4.3	0.3	0.0	0.1	11.8	5.0	0.0	0.5	1.4	0.0	2.0	45.0	16.3	40.8	86
Flagstaff A – Burnt River Mountain	55.3	3.2	0.0	13.9	0.8	0.0	1.2	6.5	10.0	0.0	8.4	21.1	0.0	7.1	33.1	22.4	27.8	66
Flagstaff B	55.9	3.1	0.0	14.7	4.2	0.0	0.1	8.0	14.3	0.0	6.5	17.7	0.0	2.1	35.0	27.1	24.6	63
Flagstaff B – Burnt River West	56.0	2.8	0.0	7.1	15.8	0.0	0.1	6.4	6.3	0.0	6.3	6.0	0.0	0.8	30.7	28.7	17.1	47
Flagstaff B – Durkee	55.7	2.8	0.0	7.1	4.2	0.0	0.1	8.0	6.3	0.0	5.9	17.7	0.0	0.9	31.0	20.3	27.3	56

Variation S3-A1

Variation S3-A1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation is not located within a designated utility corridor.

Variation S3-A1 is parallel (within 300 to 2,000 feet) to an existing 230-kV transmission line for approximately 12 miles.

Variation S3-A2

Variation S3-A2 crosses predominately private lands (11.1 miles). This variation is not located within a designated utility corridor.

Variation S3-A2 was developed to be colocated with an existing 230-kV transmission line for 12 miles.

Variation S3-B1

Variation S3-B1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation crosses both private (8.4 miles) and BLM (5.5 miles) lands and is not located within a utility corridor.

Approximately 9 miles of Variation S3-B1 is sited parallel (300 to 2,000 feet from route centerline) to an existing 138-kV transmission line and Interstate 84.

Variation S3-B2

Variation S3-B2 shares a portion of the same alignment as the Flagstaff B Alternative. This variation crosses predominately private land (14.1 miles) and is not located within a designated utility corridor.

Small portions of Variation S3-B2 are colocated (within 300 feet) with existing transmission lines. Approximately 8 miles of Variation S3-B2 is sited parallel (300 to 2,000 feet from route centerline) to an existing 230-kV transmission line.

Variation S3-B3

Variation S3-B3 shares a portion of the same alignment as the Flagstaff B Alternative. This variation crosses solely private land (14.8 miles) and is not located within a designated utility corridor.

Variation S3-B2 are colocated (within 300 feet) with existing 230-kV transmission line (4.2 miles) and a 138-kV transmission line (3.3 miles). Approximately 8 miles of Variation S3-B3 is sited parallel to existing roadway facilities (300 to 2,000 feet from route centerline).

Variation S3-B4

Variation S3-B4 shares a portion of the same alignments as Flagstaff A and B. This variation crosses solely private land (14.2 miles) and is not located within a utility corridor.

This variation is colocated (within 300 feet of variation centerline) with both an existing 230-kV transmission line (4 miles) and a 138-kV transmission line (3.3 miles). Approximately 8 miles of Variation S3-B4 is sited parallel to existing roadway facilities (300 to 2,000 feet from route centerline).

Variation S3-B5

Variation S3-B5 shares a portion of the same alignments as Flagstaff A and crosses predominately private land (13.7 miles). This variation is not located within a utility corridor.

Variation S3-B5 is sited parallel (within 300 to 2,000 feet from variation centerline) to an existing 230-kV transmission line (8.8 miles) and a 69-kV transmission line (2.9 miles). In addition, approximately 7.7 miles of Variation S3-B5 is sited parallel to existing roadway facilities.

Variation S3-C1

Variation S3-C1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation crosses private land (13.5 miles) and BLM-administered land (7.6 miles) and is not located within a designated utility corridor.

Variation S3-C1 is colocated with an existing 138-kV transmission line for approximately 7 miles.

Variation S3-C2

Variation S3-C shares the same alignment as the Applicant's Proposed Action Alternative. This variation crosses private land (15.9 miles) and BLM-administered land (5.8 miles) and is not located within a designated utility corridor.

This variation is colocated (within 300 feet) with an existing 138-kV transmission line for about 10 miles and an existing 69-kV transmission line for approximately 4 miles.

Variation S3-C3

Variation S3-C3 shares the same alignment as the Applicant's Proposed Action Alternative. This variation crosses private land (15.9 miles) and BLM-administered land (5.8 miles) and is not located within a designated utility corridor.

This variation is colocated (within 300 feet) with an existing 138-kV transmission line for about 8 miles and an existing 69-kV transmission line for approximately 1 mile.

Variation S3-C4

Variation S3-C4 shares the same alignment as the Variation S3-C4 except for about 3 miles. Variation S3-C4 crosses private land (15.4 miles) and BLM-administered land (6 miles) and is not located within a designated utility corridor.

This variation is colocated (within 300 feet) with an existing 138-kV transmission line for approximately 8 miles and an existing 69-kV transmission line for approximately 1 mile.

Variation S3-C5

Variation S3-C5 shares the same alignment as the Variation S3-C4 except for about 3 miles. Variation S3-C5 crosses private land (15.4 miles) and BLM-administered land (6 miles) and is not located within a designated utility corridor.

This variation is sited parallel to (300 to 2,000 feet from variation centerline) existing roadway facilities for approximately 9 miles.

Variation S3-C6

Variation S3-C6 crosses private land (14.2 miles) and BLM-administered land (10.5 miles) and is not located within a designated utility corridor.

This variation is sited parallel to (300 to 2,000 feet from variation centerline) existing roadway facilities for approximately 9 miles.

Flagstaff A Alternative

The Flagstaff A Alternative crosses private land (45.4 miles) and BLM-administered land (9.9 miles) and is not located within a designated utility corridor.

The Flagstaff A Alternative was developed to provide more opportunity for colocation with existing utilities than the Applicant's Proposed Action Alternative. The Flagstaff A Alternative is colocated (within 300 feet of alternative centerline) with the 230-kV transmission line for 13 miles and is parallel (within 300 to 2,000 feet) of an existing 230-kV and 138-kV transmission lines. Flagstaff A Alternative also is sited parallel to existing roadway facilities for approximately 22 miles.

Timber Canyon Alternative

The Timber Canyon Alternative crosses private land (42.2 miles), USFS land (19.7 miles) and BLM-administered land (8.4 miles), and is not located within a designated utility corridor.

The southern section of the Timber Canyon Alternative is sited parallel (300 to 2,000 feet) to Interstate 84 for approximately 4 miles and numerous other road facilities for approximately 45 miles, Table 3-277. Selection of the Timber Canyon Alternative would not be consistent with the USFS Wallowa-Whitman National Forest LRMP to follow designated corridors or existing utility rights-of-way to the extent practical.

Flagstaff A – Burnt River Mountain Alternative

The Flagstaff A – Burnt River Mountain Alternative crosses private land (47.3 miles) and BLM-administered land (8 miles) and is not located within a designated utility corridor.

The Flagstaff A – Burnt River Mountain Alternative is colocated (within 300 feet of alternative centerline) with the 230-kV transmission line for 13.9 miles and a 69-kV transmission line for 3 miles. This alternative also is parallel to (within 300 to 2,000 feet) an existing 230-kV (21 miles) and 138-kV (8 miles) and 69-kV (9.9 miles) transmission lines. In addition, the Flagstaff A – Burnt River Mountain Alternative also is sited parallel to existing roadway facilities for approximately 33 miles.

Flagstaff B Alternative

The Flagstaff B Alternative was developed to avoid private and agricultural lands. This alternative crosses private land (46.4 miles) and BLM-administered land (9.6 miles). This alternative is not located in a designated utility corridor.

Flagstaff B Alternative provides similar opportunity for colocation as the Flagstaff B Burnt River West Alternative. The Flagstaff B Alternative is colocated (within 300 feet of alternative centerline) with the 230-kV transmission line (4.2 miles), a 138-kV transmission line (14.7 miles) and a 69-kV transmission

line (3 miles). This alternative also is located is parallel (within 300 to 2,000 feet) of existing 230-kV (5.9 miles) and 138-kV (6.3 miles) and 69-kV (6.3 miles) transmission lines. In addition, the Flagstaff B Alternative also is sited parallel to existing roadway facilities for approximately 35 miles.

Flagstaff B – Burnt River West Alternative

The Flagstaff B – Burnt River West Alternative crosses private land (47.4 miles) and BLM-administered land (8.3 miles). This alternative is not located in a designated utility corridor.

The Flagstaff B – Burnt River West Alternative provides similar opportunity for colocation as the Flagstaff B Alternative. The Flagstaff B – Burnt River West Alternative is colocated (within 300 feet of alternative centerline) with the 230-kV transmission line (15.8 miles), a 138-kV transmission line (7.1 miles) and a 69-kV transmission line (2.7 miles). This alternative also is located is parallel (within 300 to 2,000 feet) of existing 230-kV (17.7 miles) and 138-kV (6.5 miles) and 69-kV (14.3 miles) transmission lines. In addition, the Flagstaff B – Burnt River West Alternative also is sited parallel to existing roadway facilities for approximately 31 miles.

Flagstaff B – Durkee

The Flagstaff B – Durkee Alternative crosses private land (47.1 miles) and BLM-administered land (12.5 miles). This alternative is not located in a designated utility corridor.

The Flagstaff B – Durkee Alternative provides less opportunity for colocation than the other Flagstaff B alternatives. This alternative is colocated (within 300 feet of alternative centerline) with the 230-kV transmission line (4.2 miles), a 138-kV transmission line (7.1 miles) and a 69-kV transmission line (2.7 miles). This alternative also is located is parallel (within 300 to 2,000 feet) of existing 230-kV (17.7 miles) and 138-kV (5.9 miles) and 69-kV (6.9 miles) transmission lines. In addition, the Flagstaff B – Durkee Alternative also is sited parallel to existing roadway facilities for approximately 31 miles.

Conclusions

The reference centerlines of alternative routes in Segment 3 cross primarily private lands and some federal lands. The percentage of federal lands crossed by Segment 3 alternative routes ranges from 14.5 percent (Flagstaff A—Burnt River Mountain) to 40.0 percent (Timber Canyon Alternative). The use of designated utility corridors is similar among the alternative routes. The number of miles of parallel linear facilities within 2,000 feet of Segment 3 alternatives range from 45.8 miles (Flagstaff B—Burnt River West) to 57.1 miles (Timber Canyon Alternative). The Timber Canyon Alternative crosses the most federal lands, and would parallel more existing linear facilities (due to proximity to existing roadways) compared to other Segment 3 alternative routes.

Existing Land Use

Table 3-278 and Table 3-279 present the residual impacts on existing land use types and structures for all alternative routes and route variations in Segment 3. For locations of residual impacts described below, refer to MV-12.

Table 3-278. Existing Land Use Inventory Data and Overall Residual Impacts for Segment 3—Baker Valley

Alternative Route	Total Length (Miles)	Resource Inventory for Existing Land Use GAP Types (miles crossed)						Overall Residual Impacts for Existing Land Use GAP Types (miles crossed)		
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland	None	Low	Moderate
Applicant's Proposed Action	55.2	0.7	0.3	0.2	0.0	3.5	50.5	0.0	54.3	0.9
Variation S3-A1	*12.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.5*	*11.9*	*0.0*	*12.4*	*0.0*
Variation S3-A2	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.5*	*11.7*	*0.0*	*12.2*	*0.0*
Variation S3-B1	*13.9*	*0.0*	*0.0*	*0.1*	*0.0*	*0.7*	*13.1*	*0.0*	*13.9*	*0.0*
Variation S3-B2	*14.4*	*1.1*	*0.0*	*0.1*	*0.3*	*0.0*	*12.9*	*0.0*	*13*	*1.4*
Variation S3-B3	*14.7*	*1.1*	*0.0*	*0.1*	*0.3*	*0.2*	*13.0*	*0.0*	*13.3*	*1.4*
Variation S3-B4	*14.3*	*2.3*	*0.0*	*0.0*	*0.3*	*0.2*	*11.5*	*0.0*	*11.7*	*2.6*
Variation S3-B5	*14.0*	*2.3*	*0.0*	*0.0*	*0.3*	*0.1*	*11.3*	*0.0*	*11.4*	*2.6*
Variation S3-C1	*21.1*	*0.7*	*0.3*	*0.1*	*0.0*	*2.0*	*18.0*	*0.0*	*20.2*	*0.9*
Variation S3-C2	*21.7*	*0.7*	*0.3*	*0.3*	*0.0*	*2.0*	*18.4*	*0.0*	*20.8*	*0.9*
Variation S3-C3	*21.1*	*1.0*	*0.3*	*0.3*	*0.8*	*1.9*	*16.8*	*0.0*	*19.1*	*2.0*
Variation S3-C4	*21.4*	*0.7*	*0.5*	*0.3*	*0.8*	*2.1*	*17.0*	*0.0*	*19.7*	*1.7*
Variation S3-C5	*21.0*	*0.2*	*0.6*	*0.1*	*1.9*	*3.4*	*14.8*	*0.0*	*18.9*	*2.1*
Variation S3-C6	*24.7*	*0.2*	*0.7*	*0.1*	*4.1*	*3.3*	*16.3*	*0.0*	*20.4*	*4.3*
Flagstaff A	55.3	3.0	0.3	0.1	0.3	2.9	48.7	0.0	51.8	3.5
Timber Canyon	70.3	2.2	0.2	0.2	25.2	4.5	38.0	0.0	42.7	27.6
Flagstaff A – Burnt River Mountain	55.3	3.3	0.3	0.3	1.1	2.8	47.5	0.0	50.7	4.6
Flagstaff B	56.0	1.8	0.3	0.2	0.3	3.0	50.4	0.0	53.7	2.3
Flagstaff B – Burnt River West	55.7	1.3	0.6	0.2	2.2	4.4	47.0	0.0	52.2	3.5
Flagstaff B – Durkee	59.6	1.3	0.7	0.2	4.4	4.3	48.7	0.0	53.9	5.7

Table 3-279. Residual Impacts for Existing Land Use Structures for Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Residual Impacts for Existing Land Use Structures																		Overall Residual Impacts on Structures (miles crossed)		
		Building (Non-residence)		Other		Residential		Rest Stop		Mining/ Extraction		Outstructure		Communication Facility		Power Substation		Windmill				
		None	Low	None	`Moderate	None	Moderate	None	Moderate	None	Low	None	Low	None	Low	None	Low	None	Low	None	Low	Moderate
Applicant's Proposed Action	55.2	55.2	0.0	55.2	0.0	55.0	0.2	55.2	0.0	55.1	0.1	54.9	0.3	55.2	0.0	55.2	0.0	55.2	0.0	54.6	0.4	0.2
Variation S3-A1	*12.4*	*12.4*	*0.0*	*12.4*	*0.0*	*12.4*	*0.0*	*12.4*	*0.0*	*12.4*	*0.0*	*12.2*	*0.2*	*12.4*	*0.0*	*12.4*	*0.0*	*12.4*	*0.0*	*12.2*	*0.2*	*0.0*
Variation S3-A2	*12.2*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*0.0*
Variation S3-B1	*13.9*	*13.9*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*0.0*
Variation S3-B2	*14.4*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*0.0*
Variation S3-B3	*14.7*	*14.7*	*0.0*	*14.7*	*0.0*	*14.7*	*0.0*	*14.7*	*0.0*	*14.6*	*0.1*	*14.7*	*0.0*	*14.7*	*0.0*	*14.7*	*0.0*	*14.7*	*0.0*	*14.6*	*0.1*	*0.0*
Variation S3-B4	*14.3*	*14.3*	*0.0*	*14.3*	*0.0*	*14.3*	*0.0*	*14.3*	*0.0*	*14.2*	*0.1*	*14.1*	*0.2*	*14.3*	*0.0*	*14.3*	*0.0*	*14.3*	*0.0*	*14.0*	*0.3*	*0.0*
Variation S3-B5	*14.0*	*14.0*	*0.0*	*14.0*	*0.0*	*14.0*	*0.0*	*14.0*	*0.0*	*14.0*	*0.0*	*13.6*	*0.4*	*14.0*	*0.0*	*14.0*	*0.0*	*14.0*	*0.0*	*13.6*	*0.4*	*0.0*
Variation S3-C1	*21.1*	*21.1*	*0.0*	*21.1*	*0.0*	*20.9*	*0.2*	*21.1*	*0.0*	*21.0*	*0.1*	*21.0*	*0.1*	*21.1*	*0.0*	*21.1*	*0.0*	*21.1*	*0.0*	*20.7*	*0.2*	*0.2*
Variation S3-C2	*21.7*	*21.7*	*0.0*	*21.7*	*0.0*	*21.5*	*0.2*	*21.7*	*0.0*	*21.6*	*0.1*	*21.6*	*0.1*	*21.7*	*0.0*	*21.7*	*0.0*	*21.7*	*0.0*	*21.3*	*0.2*	*0.2*
Variation S3-C3	*21.1*	*21.0*	*0.1*	*21.1*	*0.0*	*20.8*	*0.3*	*21.1*	*0.0*	*20.8*	*0.3*	*20.9*	*0.2*	*21.1*	*0.0*	*21.1*	*0.0*	*21.1*	*0.0*	*20.4*	*0.4*	*0.3*
Variation S3-C4	*21.4*	*21.3*	*0.1*	*21.4*	*0.0*	*21.1*	*0.3*	*21.4*	*0.0*	*21.1*	*0.3*	*21.2*	*0.2*	*21.4*	*0.0*	*21.4*	*0.0*	*21.4*	*0.0*	*20.7*	*0.4*	*0.3*
Variation S3-C5	*21.0*	*21.0*	*0.0*	*21.0*	*0.0*	*21.0*	*0.0*	*21.0*	*0.0*	*21.0*	*0.0*	*20.9*	*0.1*	*21.0*	*0.0*	*21.0*	*0.0*	*21.0*	*0.0*	*20.9*	*0.1*	*0.0*
Variation S3-C6	*24.7*	*24.7*	*0.0*	*24.7*	*0.0*	*24.7*	*0.0*	*24.7*	*0.0*	*24.7*	*0.0*	*24.7*	*0.0*	*24.7*	*0.0*	*24.7*	*0.0*	*24.7*	*0.0*	*24.7*	*0.0*	*0.0*
Flagstaff A	55.3	55.3	0.0	55.3	0.0	55.1	0.2	55.3	0.0	55.2	0.1	54.6	0.7	55.3	0.0	55.3	0.0	55.3	0.0	54.3	0.8	0.2
Timber Canyon	70.3	70.1	0.2	70.3	0.0	69.5	0.8	70.3	0.0	70.2	0.1	69.7	0.6	70.2	0.1	70.3	0.0	70.3	0.0	69.1	0.4	0.8
Flagstaff A – Burnt River Mountain	55.3	55.2	0.1	55.3	0.0	55.0	0.3	55.3	0.0	55.0	0.3	54.5	0.8	55.3	0.0	55.3	0.0	55.3	0.0	54.0	1.0	0.3
Flagstaff B	56.0	56.0	0.0	56.0	0.0	55.8	0.2	56.0	0.0	55.8	0.2	55.7	0.3	56.0	0.0	56.0	0.0	56.0	0.0	55.3	0.5	0.2

Table 3-279. Residual Impacts for Existing Land Use Structures for Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Residual Impacts for Existing Land Use Structures																		Overall Residual Impacts on Structures (miles crossed)		
		Building (Non-residence)		Other		Residential		Rest Stop		Mining/ Extraction		Outstructure		Communication Facility		Power Substation		Windmill				
		None	Low	None	`Moderate	None	Moderate	None	Moderate	None	Low	None	Low	None	Low	None	Low	None	Low	None	Low	Moderate
Flagstaff B – Burnt River West	55.7	55.7	0.0	55.7	0.0	55.7	0.0	55.7	0.0	55.6	0.1	55.6	0.1	55.7	0.0	55.7	0.0	55.7	0.0	55.5	0.2	0.0
Flagstaff B – Durkee	59.6	59.6	0.0	59.6	0.0	59.6	0.0	59.6	0.0	59.5	0.1	59.4	0.2	59.6	0.0	59.6	0.0	59.6	0.0	59.3	0.3	0.0

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would result in 0.7 mile of moderate impacts on existing land uses where the reference centerline of the route crosses agricultural areas that could result in short-term conflicts with agricultural production. These temporary impacts associated with construction could include detouring of roads, removal of fencing, or non-intentional damage to property. In some cases, access to existing commercial or agricultural operations may be periodically hindered in areas where public and employee access is prohibited for safety reasons. Impacts resulting from the operation of the Applicant's Proposed Action Alternative would likely be minimal as agricultural operations could persist adjacent to and within areas of the right-of-way where transmission facilities could span agricultural features. No residual high impacts associated with Applicant's Proposed Action Alternative would be expected. Refer to Table 3-241 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 3.

Variations S3-A1, S3-A2, and S3-B1

No moderate or high impacts would occur with the construction and operation of these variations.

Variations S3-B2 and S3-B3

Variations S3-B2 and S3-B3 would result in 1.4 miles of moderate impacts on existing land uses where the reference centerline crosses agricultural and forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with these variations would be expected.

Variations S3-B4 and S3-B5

Variations S3-B4 and S3-B5 would result in 2.6 miles of moderate impacts on existing land uses where the reference centerline crosses agricultural and forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with these variations would be expected.

Variation S3-C1

Variation S3-C1 would result in 0.7 mile of moderate impacts on existing land uses where the reference centerline crosses agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with this variation would be expected.

Variation S3-C2

Variation S3-C2 would result in 0.9 mile of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the variation crosses agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with this variation would be expected.

Variation S3-C3

Variation S3-C3 would result in 2.0 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the variation crosses forest/woodland

and agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with this variation would be expected.

Variation S3-C4

Variation S3-C4 would result in 1.7 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the variation crosses forest/woodland and agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with this variation would be expected.

Variation S3-C5

Variation S3-C5 would result in 2.1 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the variation crosses forest/woodland and agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with this variation would be expected.

Variation S3-C6

Variation S3-C6 would result in 4.3 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the variation crosses forest/woodland and agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with this variation would be expected.

Flagstaff A Alternative

Flagstaff A Alternative would result in 3.5 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the route crosses forest/woodland and agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 3. No high impacts associated with this alternative would be expected. Refer to Table 3-241 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 3.

Timber Canyon Alternative

Timber Canyon Alternative would result in 27.6 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the route crosses forest/woodland and agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 3. No high impacts associated with this alternative would be expected. Refer to Table 3-241 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 3.

Flagstaff A – Burnt River Mountain Alternative

Flagstaff A – Burnt River Mountain Alternative would result in 4.6 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the route crosses forest/woodland and agricultural areas that could result in short-term conflicts with agricultural

production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 3. No high impacts associated with this alternative would be expected. Refer to Table 3-241 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 3.

Flagstaff B Alternative

Flagstaff B Alternative would result in 2.3 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the route crosses forest/woodland and agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 3. No high impacts associated with this alternative would be expected. Refer to Table 3-241 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 3.

Flagstaff B – Burnt River West Alternative

Flagstaff B – Burnt River West Alternative would result in 3.5 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the route crosses forest/woodland and agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 3. No high impacts associated with this alternative would be expected. Refer to Table 3-241 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 3.

Flagstaff B – Durkee

Flagstaff B – Durkee Alternative would result in 5.7 miles of moderate impacts on existing land uses where the reference centerline crosses where the reference centerline of the route crosses forest/woodland and agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 3. No high impacts associated with this alternative would be expected. Refer to Table 3-241 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 3.

Conclusions

In Segment 3, no high residual impacts are anticipated on existing land. Moderate residual impacts associated would occur where the Project would cross agricultural or forested/woodland areas. The lengths of the alternative routes in the segment range from 55.2 miles (Applicant's Proposed Action Alternative) to 70.3 miles (Timber Canyon Alternative). Overall, the moderate residual impacts on existing land uses would range from 0.9 mile (Applicant's Proposed Action Alternative) to 27.6 miles (Timber Canyon Alternative). Considering the overall length of an alternative route and the extent of moderate residual impacts, the Applicant's Proposed Action Alternative would have the-least effects on existing land uses among the Segment 3 alternative routes. There notable difference in impacts on

existing land uses among variations with regard to impacts on existing land uses for Segment 3 alternatives.

Timber Management

Applicant's Proposed Action Alternative

No forested lands are crossed by the Applicant's Proposed Action in Segment 3.

Other Alternative Routes and Variations in Segment 3

All of the potential impacts on timber management presented in Section 3.2.6.1 could occur wherever forested lands are crossed by alternative routes and variations in Segment 3. These impacts can be summarized as a potential loss of harvestable timber, a loss of future timber revenue, and potential constraints on certain types of timber harvest operations adjacent to the right-of-way for safety near transmission components.

Table 3-242 provides miles crossed of forested lands on each alternative route in Segment 3. Impacts on lands administered by the USFS would be evaluated under the management direction in the LRMP. Impacts on forested private lands would vary with the landowner and their individual concerns. The Applicant will negotiate with the landowner regarding compensation for timber values lost or reduced as a result of the B2H Project.

Goal 4 of the Oregon Statewide Local Planning Goals includes the following requirements for siting transmission lines on forested lands:

- The proposed use must not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands.
- The proposed use must not significantly increase fire hazard or significantly increase fire-suppression costs or significantly increase risks to fire-suppression personnel.
- The proposed use has the least impact on nearby or adjoining forest or agricultural lands.
- The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized.
- The amount of forest lands used to site access roads, service corridors, and structures is minimized.
- The risks associated with wildfire are minimized.

Through right-of-way fees and compensation to landowners, the Applicant would ensure that significant changes in cost or forest practices do not result from the B2H Project. Design features of the B2H Project for environmental protection address the requirements to minimize fire hazard, risks to fire-suppression personnel, impacts on forest operations, and the amount of forested lands used for access roads and other components.

Timber Canyon Alternative

The Timber Canyon Alternative crosses approximately 20.6 miles of forested lands, primarily Mixed Conifer Forest. In addition to the potential impacts discussed under Other Alternative Routes and

Variations in Segment 3, the Timber Canyon Alternative crosses timber management areas in the Wallowa-Whitman National Forest.

The 360 acres of forest in the Wallowa-Whitman Forest Plan timber management areas that would be removed from the timber base due to right-of-way clearing and maintenance would not be large enough to affect the programmed harvest level for the Wallowa-Whitman National Forest. As a result, long-term effects on timber management would be minimal for the Timber Canyon Alternative.

Conclusions

The Timber Canyon Alternative is the only alternative route variation within Segment 3 that crosses forested lands. Thus, impacts on timber management would only occur in association with the Timber Canyon Alternative in Segment 3.

Fire Management

Refer to the discussion in the Effects Common to All Alternatives section.

Conclusions

There is no discernable difference in impacts on fire management among the alternative routes and variations analyzed in Segment 3.

Zoning

The result of the effects analysis for zoning for the alternatives and route variations in Segment 3 are described below in terms of miles crossed of EFU or ERU zones. As discussed in Effects Common to All Alternatives for Zoning there are no identified zones crossed that prohibit the development of the B2H Project facilities; however, in areas where the B2H Project crosses EFU or ERU zones, the Applicant would have to demonstrate necessity as described in Section 3.2.6.2 Regulatory Framework. In all cases the potential effect of not demonstrating necessity could result in non-conformance with Oregon Statewide Planning Goals. Refer to MV-14 for locations of EFU and ERU zoning.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses approximately 55.2 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-A1

The Variation S3-A1 crosses approximately 12.4 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-A2

The Variation S3-A2 crosses approximately 12.2 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-B1

The Variation S3-B1 crosses approximately 13.9 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-B2

The Variation S3-B2 crosses approximately 14.4 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-B3

The Variation S3-B3 crosses approximately 14.7 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-B4

The Variation S3-B4 crosses approximately 14.3 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-B5

The Variation S3-B5 crosses approximately 14.0 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-C1

The Variation S3-C1 crosses approximately 21.1 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-C2

The Variation S3-C2 crosses approximately 21.7 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-C3

The Variation S3-C3 crosses approximately 21.1 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-C4

The Variation S3-C4 crosses approximately 21.4 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-C5

The Variation S3-C5 crosses approximately 21.0 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S3-C6

The Variation S3-C6 crosses approximately 23.5 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Flagstaff A Alternative

The Flagstaff A Alternative crosses approximately 55.3 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Timber Canyon Alternative

The Timber Canyon Alternative crosses approximately 38.0 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Flagstaff A – Burnt River Mountain Alternative

The Flagstaff A – Burnt River Mountain Alternative crosses approximately 55.3 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Flagstaff B Alternative

The Flagstaff B Alternative crosses approximately 56 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Flagstaff B – Burnt River West Alternative

The Flagstaff B – Burnt River West Alternative crosses approximately 55.7 miles of EFU zoning.

Flagstaff B – Durkee

The Flagstaff B – Durkee Alternative crosses approximately 58.4 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Conclusions

Because the Applicant has elected to demonstrate compliance with statewide planning goals by under Path B, the EFSC would determine whether the project complies with applicable Land Conservation and Development Commission rules and land-use statutes (including statewide planning goals), and any applicable, substantive criteria from each county's local comprehensive plan and land-use regulations. There is no notable difference among Segment 3 alternative routes or variations with regard to zoning.

Military Training

Table 3-276 describes the MTRs crossed for the alternatives and route variations in Segment 3.

Applicant's Proposed Action Alternative

The types of impacts on military training in special-use airspace would be similar to those described for the Applicant's Proposed Action Alternative for Segment 2. However, the Applicant's Proposed Action Alternative and alternative routes would crosses more miles within Segment 3, see Table 3-238.

Variations S3-C1 through S3-C6

Effects on military training in special-use airspace would be the same as those described for the Applicant's Proposed Action Alternative.

Variations S3-A1, S3-A2, and S3-B1 through S3-B5

No other route variations for the Applicant's Proposed Action Alternative cross MTRs, and, therefore, no identifiable impacts are anticipated to occur.

Flagstaff A Alternative

Effects on military training in special-use airspace from the Flagstaff A Alternative would be the same as those described for the Applicant's Proposed Action Alternative.

Timber Canyon Alternative

Effects on military training in special-use airspace from the Timber Canyon Alternative would be the same as those described for the Applicant's Proposed Action Alternative.

Flagstaff A – Burnt River Mountain Alternative

Effects on military training in special-use airspace from the Flagstaff A Burnt River Mountain Alternative would be the same as those described for the Applicant's Proposed Action Alternative.

Flagstaff B Alternative

Effects on military training in special-use airspace from the Flagstaff B Alternative would be the same as those described for the Applicant's Proposed Action Alternative.

Flagstaff B – Burnt River West Alternative

Effects on military training in special-use airspace from the Flagstaff B- Burnt River West Alternative would be the same as those described for the Applicant's Proposed Action Alternative.

Flagstaff B – Durkee

Effects on military training in special-use airspace from the Flagstaff B – Durkee Alternative would be the same as those described for the Applicant's Proposed Action Alternative.

Conclusions

There is no discernable difference in impacts on military training among the alternative routes analyzed in Segment 3.

Specially Designated Areas

There are no specially designated areas crossed by any alternative or route variation in Segment 3. Although the Oregon National Historic Trail ACEC (multiple parcels) is located in the 1-mile-wide study corridor in this segment, it is not located within the 250 foot right-of-way. No activities associated with the project would occur within the ACEC, thus, it is not anticipated that this area would be affected by the B2H Project.

Conclusions

There is no discernable difference in impacts on specially designated areas among the alternative routes analyzed in Segment 3.

SEGMENT 4—BROGAN

Land Ownership, Utility Corridors, and Parallel Facilities

Table 3-280 and Table 3-281 present the miles of land ownership, utility corridors, and parallel facilities crossed for the alternatives and route variations in Segment 4.

Table 3-280. Land Ownership and Utility Corridors Inventory Data and Residual Impacts for Segment 4—Brogan (miles crossed)

Alternative Route	Total Length (miles)	Land Ownership						Utility Corridors		
		Bureau of Land Management	Bureau of Reclamation	Department of Defense	U.S. Forest Service	State	Private	Resource Management Plan	West-Wide Energy Corridor	Percent within Utility Corridor
Applicant's Proposed Action	40.1	20.2	0.0	0.0	0.0	2.9	17.0	0.0	0.0	0.0
Variation S4-A1	*5.9*	*0.7*	*0.0*	*0.0*	*0.0*	*0.0*	*5.2*	*0.0*	*0.0*	*0.0*
Variation S4-A2	*6.0*	*0.7*	*0.0*	*0.0*	*0.0*	*0.0*	*5.3*	*0.0*	*0.0*	*0.0*
Variation S4-A3	*6.1*	*0.8*	*0.0*	*0.0*	*0.0*	*0.0*	*5.3*	*0.0*	*0.0*	*0.0*
Tub Mountain South	40.5	25.7	0.0	0.0	0.0	0.0	14.8	1.8	3.2	11.1
Willow Creek	34.6	15.2	0.0	0.0	0.0	0.0	19.4	0.0	0.0	0.0

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses predominately BLM-administered lands (20.2 miles) and private lands (17 miles). Other jurisdictions crossed include state lands (2.9 miles).

This alternative is not located within a designated utility corridor. The Applicant's Proposed Action Alternative is sited parallel (within 300 to 2,000 feet from route centerline) to an existing 138-kV transmission line (6 miles) a 69-kV transmission line (1.5 miles), and roadway facilities (12.2 miles).

Variation S4-A1

Variation S4-A1 shares the same alignment as the Applicant's Proposed Action Alternative. This variation is not located within a designated utility corridor and provides the same opportunity for colocation and siting with parallel facilities as the Applicant's Proposed Action Alternative.

Variation S4-A2

Variation S4-A2 provides more opportunity for colocation with existing utility facilities. This variation is colocated (within 300 feet of variation centerline) of an existing 138-kV transmission line for 5.7 miles. This variation also is sited parallel to (300 to 2,000 feet of variation centerline) existing road facilities for approximately 2.8 miles.

Table 3-281. Parallel Facilities in Segment 4—Brogan

Alternative Route	Total Length (miles)	Parallel Linear Facilities (within 300 feet of reference centerline) (miles)							Parallel Linear Facilities (from 300 feet to 2,000 feet from reference centerline) (miles)							Total Miles Parallel Linear Facilities (within 300 feet)	Total Miles Parallel Linear Facilities (from 300 to 2,000 feet)	Total Number of Linear Facility Crossings
		69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads	69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads			
Applicant's Proposed Action	40.1	0.1	0.0	0.1	0.0	0.0	0.0	3.8	1.6	0.0	6.0	0.0	0.0	0.0	12.3	4.0	16.0	20
Variation S4-A1	*5.9*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.3*	*0.4*	*0.0*	*5.8*	*0.0*	*0.0*	*0.0*	*1.9*	*0.4*	*5.5*	*2*
Variation S4-A2	*6.0*	*0.0*	*0.0*	*5.7*	*0.0*	*0.0*	*0.0*	*0.0*	*1.6*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*2.8*	*5.7*	*0.2*	*2*
Variation S4-A3	*6.1*	*0.0*	*0.0*	*4.8*	*0.0*	*0.0*	*0.0*	*0.0*	*1.3*	*0.0*	*1.1*	*0.0*	*0.0*	*0.0*	*2.8*	*4.9*	*1.1*	*2*
Tub Mountain South	40.5	0.1	0.0	5.7	0.0	0.0	1.0	3.3	2.3	0.0	3.2	0.0	0.0	3.1	20.7	9.9	18.3	30
Willow Creek	34.6	0.1	0.0	0.1	0.0	0.0	0.0	6.4	1.2	0.0	6.0	0.0	0.0	0.0	15.4	6.6	19.1	30

Variation S4-A3

Variation S4-A3 provides a connection from the Flagstaff B – Durkee Alternative to provide opportunity to colocation with existing facilities. This variation then continues on to share the same alignment as Variation S4-A2. Variation S4-A3 is colocated (within 300 feet of variation centerline) of an existing 138-kV transmission line for 4.8 miles. This variation also is sited parallel to (300 to 2,000 feet of variation centerline) existing road facilities for approximately 2.8 miles.

Tub Mountain South Alternative

The Tub Mountain South Alternative predominately crosses BLM-administered lands (40.5). Other jurisdictions crossed include state lands (2.9 miles). This alternative shares the same alignment as Variation S4-A2 for 5.9 miles.

The Tub Mountain South Alternative is located within both an RMP corridor (1.8 miles) for SEORMP area and the West-Wide Energy Corridor utility corridor (3.2 miles). This alternative provides more opportunity for colocation than the Applicant's Proposed Action Alternative. The Tub Mountain South Alternative is colocated (within 300 feet of centerline) with an existing 138-kV transmission line (5.7 miles), existing pipeline (0.9 mile) and existing road facilities 3.3 miles). In addition, this alternative is parallel (300 to 2,000 feet from alternative centerline) to an existing pipeline (3.1 miles) and existing road facilities (20.7 miles).

Willow Creek Alternative

The Willow Creek Alternative crosses private land (19.4 miles) and BLM-administered land (15.2 miles) and is not located within a designated utility corridor.

The Willow Creek Alternative provides similar opportunity for colocation as the Applicant's Proposed Action Alternative. The Willow Creek Alternative is sited parallel (within 300 to 2,000 feet from route centerline) to an existing 138-kV transmission line (6 miles) a 69-kV transmission line (1.2 miles), and roadway facilities (15.4 miles).

Conclusions

The reference centerlines for alternative routes in Segment cross primarily federal lands and some private lands. The percentage of federal lands crossed by Segment 4 alternative routes ranges from 43.9 percent (Willow Creek Alternative) to 63.5 percent (Tub Mountain South Alternative). Only the Tub Mountain South Alternative uses designated utility corridors (5.0 miles). The total miles of parallel linear facilities within 2,000 feet of Segment 4 alternatives range from 20.0 miles (Applicant's Proposed Action Alternative) to 28.2 miles (Tub Mountain South Alternative). The Tub Mountain South Alternative crosses the most federal lands, makes use of designated utility corridors, and parallels the most existing linear facilities compared to other Segment 4 alternative routes.

Existing Land Use

Table 3-282 and Table 3-283 present the residual impacts on existing land use types and structures for all alternative routes and route variations in Segment 4. For locations of residual impacts described below, refer to MV-13.

Table 3-282. Existing Land Use Inventory Data and Overall Residual Impacts for Segment 4—Brogan										
Alternative Route	Total Length (Miles)	Resource Inventory for Existing Land Use GAP Types (miles crossed)						Overall Residual Impacts for Existing Land Use GAP Types (miles crossed)		
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland	None	Low	Moderate
Applicant's Proposed Action	40.1	0.1	1.4	0.0	0.0	16.6	22.0	0.0	40.0	0.1
Variation S4-A1	*5.9*	*0.1*	*0.0*	*0.0*	*0.0*	*2.1*	*3.7*	*0.0*	*5.8*	*0.1*
Variation S4-A2	*6.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.5*	*3.5*	*0.0*	*6.0*	*0.0*
Variation S4-A3	*6.1*	*0.0*	*0.0*	*0.0*	*0.0*	*2.3*	*3.8*	*0.0*	*6.1*	*0.0*
Tub Mountain South	40.5	3.0	1.7	0.1	0.0	19.9	15.8	0.0	37.5	3.0
Willow Creek	34.6	2.0	1.2	0.1	0.1	11.4	19.8	0.0	32.5	2.1

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would result in 0.1 mile of moderate impacts on existing land uses where the reference centerline of the route crosses agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These temporary impacts associated with construction could include detouring of roads, removal of fencing, or non-intentional damage to property. In some cases, access to existing commercial or agricultural operations may be periodically hindered in areas where public and employee access is prohibited for safety reasons. Impacts resulting from the operation of the Applicant's Proposed Action Alternative would likely be minimal as agricultural operations could persist adjacent to and within areas of the right-of-way where transmission facilities could span agricultural features. No high impacts associated with Applicant's Proposed Action Alternative would be expected. Refer to Table 3-248 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 4.

Variation S4-A1

The Variation S4-A1 would result in 0.1 mile of moderate impacts on existing land uses where the reference centerline of the route crosses agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 4. No high impacts associated with the Variation S4-A1 would be expected.

Variation S4-A2

No residual moderate or high impacts associated with the Variation S4-A2 would be expected.

Variation S4-A3

No residual moderate or high impacts associated with the Variation S4-A3 would be expected.

Table 3-283. Residual Impacts for Existing Land Use Structures for Segment 4—Brogan

Alternative Route	Total Length (miles)	Residual Impacts for Each Structure Type (miles crossed)																		Overall Residual Impacts on Structures (miles crossed)		
		Building (Non-residence)		Other		Residential		Rest Stop		Mining/ Extraction		Outstructure		Communication Facility		Power Substation		Windmill				
		None	Low	None	Moderate	None	Moderate	None	Moderate	None	Low	None	Low	None	Low	None	Low	None	Low	None	Low	Moderate
Applicant's Proposed Action	40.1	40.1	0.0	40.1	0.0	40.1	0.0	40.1	0.0	40.1	0.0	40.1	0.0	40.1	0.0	40.1	0.0	40.0	0.1	40.0	0.1	0.0
Variation S4-A1	*5.9*	*5.9*	*0.0*	*5.9*	*0.0*	*5.9*	*0.0*	*5.9*	*0.0*	*5.9*	*0.0*	*5.9*	*0.0*	*5.9*	*0.0*	*5.9*	*0.0*	*5.9*	*0.0*	*5.9*	*0.0*	*0.0*
Variation S4-A2	*6.0*	*6.0*	*0.0*	*6.0*	*0.0*	*6.0*	*0.0*	*6.0*	*0.0*	*6.0*	*0.0*	*6.0*	*0.0*	*6.0*	*0.0*	*6.0*	*0.0*	*6.0*	*0.0*	*6.0*	*0.0*	*0.0*
Variation S4-A3	*6.1*	*6.1*	*0.0*	*6.1*	*0.0*	*6.1*	*0.0*	*6.1*	*0.0*	*6.1*	*0.0*	*6.1*	*0.0*	*6.1*	*0.0*	*6.1*	*0.0*	*6.1*	*0.0*	*6.1*	*0.0*	*0.0*
Tub Mountain South	40.5	40.5	0.0	40.5	0.0	40.5	0.0	40.5	0.0	40.5	0.0	40.5	0.0	40.5	0.0	40.5	0.0	40.5	0.0	40.5	0.0	0.0
Willow Creek	34.6	34.6	0.0	34.6	0.0	34.6	0.0	34.6	0.0	34.6	0.0	34.6	0.0	34.6	0.0	34.6	0.0	34.5	0.1	34.5	0.1	0.0

Tub Mountain South Alternative

The Tub Mountain South Alternative would result in 3.0 miles of moderate impacts on existing land uses where the reference centerline of the route crosses agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 4. No high impacts associated with this alternative would be expected. Refer to Table 3-248 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 4.

Willow Creek Alternative

The Willow Creek Alternative would result in 2.1 miles of moderate impacts on existing land uses where the reference centerline of the route crosses agricultural forest/woodland areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 4. No high impacts associated with this alternative would be expected. Refer to Table 3-248 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 4.

Conclusions

In Segment 4, no high residual impacts on existing land uses would be anticipated. Moderate residual impacts associated with Segment 4 alternative routes would occur where the Project would cross agricultural or forested/woodland areas. The lengths of the alternative routes in this segment range from 34.6 miles (Willow Creek Alternative) to 40.5 miles (Tub Mountain South Alternative). Overall, moderate residual impacts on existing land uses would range from 0.1 mile (Applicant's Proposed Action Alternative) to 3.0 miles (Tub Mountain South Alternative). Considering the overall length of an alternative route and the extent of residual moderate impacts, the Applicant's Proposed Action Alternative would have the least moderate residual impacts on existing land uses among the Segment 4 alternative routes. There is no notable difference in impacts on existing land uses among the variations.

Timber Management

No forested vegetation, and, thus, no timber resources, are crossed by Applicant's Proposed Action Alternative and other alternatives and route in Segment 4.

Conclusions

No identifiable impacts on timber management would occur on any alternative routes and variations analyzed in Segment 4.

Fire Management

Refer to the discussion in the Effects Common to All Alternatives section.

Conclusions

There is no discernable difference in impacts on fire management among the alternative routes and variations analyzed in Segment 4.

Zoning

The result of the effects analysis for zoning for the alternatives and route variations in Segment 4 are described below in terms of miles crossed of EFU or ERU zones. As discussed in Effects Common to All Alternatives for Zoning there are no identified zones crossed that prohibit the development of the B2H Project facilities; however, in areas where the B2H Project crosses EFU or ERU zones, the Applicant would have to demonstrate necessity as described in Section 3.2.6.2 Regulatory Framework. In all cases the potential effect of not demonstrating necessity could result in non-conformance with Oregon Statewide Planning Goals. Refer to MV-14 for locations of EFU and ERU zoning.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses approximately 12.7 miles of EFU zoning and 27.3 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S4-A1

The Variation S4-A1 crosses approximately 5.9 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S4-A2

The Variation S4-A2 crosses approximately 6.0 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S4-A3

The Variation S4-A3 crosses approximately 6.1 miles of EFU zoning. Potential effects are discussed in Effects Common to All Alternatives.

Tub Mountain South Alternative

The Tub Mountain South Alternative crosses approximately 14.1 miles of EFU zoning and 26.4 of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Willow Creek Alternative

The Willow Creek Alternative crosses approximately 12.0 miles of EFU zoning and 22.5 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Conclusions

Because the Applicant has elected to demonstrate compliance with statewide planning goals by under Path B, the EFSC would determine whether the project complies with applicable Land Conservation and Development Commission rules and land-use statutes (including statewide planning goals), and any applicable, substantive criteria from each county's local comprehensive plan and land-use regulations. There is no notable difference among Segment 4 alternative routes or variations with regard to zoning. All cross similar distances of EFU zones.

Military Training

Table 3-280 describes the MTRs crossed for the alternatives and route variations in Segment 4.

Applicant's Proposed Action Alternative

The types of impacts on military training in special-use airspace would be the similar as those described for the Applicant's Proposed Action Alternative for Segment 2.

The Applicant's Proposed Action Alternative route variations would not cross MTRs; therefore, no effects are anticipated to occur.

Tub Mountain South Alternative

The Tub Mountain South Alternative does not cross any MTRs; therefore, no effects are anticipated to occur.

Willow Creek Alternative

The Willow Creek Alternative does not cross any MTRs; therefore, no effects are anticipated to occur.

Conclusions

There is no discernable difference in impacts on military training among the alternative routes analyzed in Segment 4.

Specially Designated Areas

There are no specially designated areas crossed by any alternative or route variation in Segment 4. Although the Oregon National Historic Trail ACEC – Birch Creek and Tub Mountain parcels are within the 1-mile-wide study corridors in this segment, they are not located within the 250 foot right-of-way. No activities associated with the project would occur within the ACEC; thus, it is not anticipated that specially designated areas would be affected by the B2H Project.

Conclusions

There is no discernable difference in impacts on specially designated areas among the alternative routes analyzed in Segment 4.

SEGMENT 5—MALHEUR

Land Ownership, Utility Corridors, and Parallel Facilities

Table 3-284 and Table 3-285 present the miles of land ownership, utility corridors, and parallel facilities crossed for the alternatives and route variations in Segment 5.

Table 3-284. Land Ownership and Utility Corridors Inventory Data and Residual Impacts for Segment 5—Malheur (miles crossed)										
Alternative Route	Total Length (miles)	Land Ownership						Utility Corridors		
		Bureau of Land Management	Bureau of Reclamation	Department of Defense	U.S. Forest Service	State	Private	Resource Management Plan	West-Wide Energy Corridor	Percent within Utility Corridor
Applicant's Proposed Action	40.4	30.4	0.8	0.0	0.0	0.0	9.2	12	0.8	30.2
Variation S5-A1	*7.4*	*1.1*	*0.0*	*0.0*	*0.0*	*0.0*	*6.3*	*0.0*	*0.0*	*0.0*
Variation S5-A2	*7.4*	*7.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S5-B1	*2.5*	*2.1*	*0.4*	*0.0*	*0.0*	*0.0*	*0.0*	*1.3*	*0.0*	*52.0*
Variation S5-B2	*2.8*	*1.3*	*0.2*	*0.0*	*0.0*	*0.0*	*1.3*	*1.3*	*0.0*	*46.4*
Malheur S	43.5	39.2	0.5	0.0	0.0	0.0	3.8	7.0	3.4	20.0
Malheur A	43.1	37.9	0.8	0.0	0.0	0.0	4.4	3.5	3.5	14.2

Applicant's Proposed Action Alternative

The Applicant's Proposed Action crosses predominately BLM-administered lands (30.4 miles) and private lands (9.2 miles). Other jurisdictions crossed include Reclamation lands (0.8 mile).

This alternative is located within both an RMP corridor (12 miles) for the SEORMP area and the West-Wide Energy Corridor utility corridor (0.8 mile). Small portions (less than one mile) of the Applicant's Proposed Action Alternative are colocated with or parallel to existing transmission lines. Approximately 8.6 miles is colocated with existing roadway facilities. This alternative also is sited parallel (within 300 to 2,000 feet from route centerline) to existing roadway facilities (16.3 miles). The 2016 368 Corridor Study is ongoing. However, some segments of existing West-Wide Energy Corridors are identified as corridors of concern within the Owyhee Field Office due to location of the corridor through sensitive resources. This concern does not apply to the entire corridor; therefore, additional agency coordination may be required for the use of existing West-Wide Energy Corridors during final design of the B2H Project.

Variation S5-A1

Variation S5-A1 shares the same alignment as the Applicant's Proposed Action Alternative for 7.4 miles. This variation was developed to avoid crossing lands with wilderness characteristics. Variation S5-A1 crosses predominately private land (6.3 miles) and a small portion (1.1 miles) of BLM-administered lands and is not located within a designated utility corridor.

Variation S5-A1 is sited parallel (within 300 to 2,000 feet of variation centerline) to existing roadway facilities for 2.9 miles.

Table 3-285. Parallel Facilities in Segment 5—Malheur

Alternative Route	Total Length (miles)	Parallel Linear Facilities (within 300 feet of reference centerline) (miles)							Parallel Linear Facilities (from 300 feet to 2,000 feet from reference centerline) (miles)							Total Miles Parallel Linear Facilities (within 300 feet)	Total Miles Parallel Linear Facilities (from 300 to 2,000 feet)	Total Number of Linear Facility Crossings
		69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads	69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads			
Applicant's Proposed Action	40.4	0.1	0.1	0.0	0.0	0.1	0.0	8.6	0.7	0.7	0.0	0.0	0.8	0.0	16.3	8.7	16.2	54
Variation S5-A1	*7.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.9*	*0.8*	*2.9*	*7*
Variation S5-A2	*7.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.6*	*0.5*	*2.6*	*5*
Variation S5-B1	*2.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.6*	*0.9*	*1.6*	*10*
Variation S5-B2	*2.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.2*	*0.6*	*2.2*	*5*
Malheur S	43.5	0.1	0.1	0.0	0.0	0.2	0.0	7.1	0.7	0.7	0.0	0.0	7.1	0.0	16.2	7.3	18.3	27
Malheur A	43.1	0.1	0.1	0.0	0.0	0.1	0.0	4.7	0.7	0.7	0.0	0.0	7.7	0.0	17.4	4.8	20.6	39

Variation S5-A2

Variation S5-A2 is located solely on BLM-administered lands. This variation is not located within a designated utility corridor and crosses an area with wilderness characteristics.

Variation S5-A2 is sited parallel (within 300 to 2,000 feet of variation centerline) to existing roadway facilities for 2.6 miles.

Variation S5-B1

Variation S5-B1 shares the same alignment as the Applicant's Proposed Action Alternative for 2.6 miles. This variation crosses predominately BLM-administered lands (2.6 miles) as well as Reclamation lands (0.4 mile).

Variation S5-B1 is located within a small portion of the RMP corridor for the SEORMP area, and crosses the Owyhee River in an area that is determined to be suitable for wild and scenic designation. This variation is sited parallel (300 to 2,000 feet from variation centerline) to existing roadway facilities for 1.6 miles.

Variation S5-B2

Variation S5-B2 was developed to cross lands outside the area suitable for wild and scenic designation. This variation crosses BLM-administered lands (1.3 miles) and private lands (1.3 miles). Other jurisdictions crossed include Reclamation (0.2 mile).

This variation is located within an RMP utility corridor for the SEORMP area and is sited parallel (300 to 2,000 feet from variation centerline) to existing roadway facilities for 2.2 miles.

Malheur S Alternative

The Malheur S Alternative crosses predominately BLM-administered lands. Other jurisdictions crossed include private (3.8 miles) and Reclamation (0.5 mile). This alternative is located in an RMP utility corridor (7 miles) for the SEORMP area and within the West-Wide Energy Corridor utility corridor (3.4 miles).

Malheur S Alternative is sited parallel (within 300 to 2,000 feet of variation centerline) to existing roadway facilities for 16.3 miles.

Malheur A Alternative

The Malheur A Alternative crosses predominately BLM-administered lands (37.9 miles). Other jurisdictions crossed include private (4.3 mile) and Reclamation (0.8 mile). This alternative is located within both an RMP utility corridor (3.5 miles) for the SEORMP area and the West-Wide Energy Corridor utility corridor (3.5 miles).

The Malheur A Alternative is sited parallel (within 300 to 2,000 feet of variation centerline) to existing roadway facilities for 17.4 miles.

Conclusions

The reference centerlines for alternative routes in Segment 5 cross primarily federal lands and some private lands. The percentage of federal lands crossed by Segment 5 alternative routes ranges from 77.2 percent (Applicant's Proposed Action Alternative) to 91.2 percent (Malheur S Alternative). Additionally, Segment 5 alternatives use from 7.0 miles (Malheur A Alternative) and 12.8 miles (Applicant's Proposed Action Alternative) of designated utility corridors. The total miles of parallel linear facilities within 2,000 feet of Segment 5 alternatives range from 24.9 miles (Applicant's Proposed Action Alternative) to 25.6 miles (Malheur S Alternative). The Malheur S Alternative would use more federal lands, and would parallel more existing linear facilities as compared to other Segment 5 alternatives. The Malheur S Alternative uses less miles of designated utility corridors (2.4 miles less) than the Applicant's Proposed Action Alternative.

Existing Land Use

Table 3-286 and Table 3-287 present the residual impacts on existing land use types and structures for all alternative routes and route variations in Segment 5. For locations of residual impacts described below refer to MV-13.

Table 3-286. Existing Land Use Inventory Data and Overall Residual Impacts for Segment 5—Malheur

Alternative Route	Total Length (miles)	Resource Inventory for Existing Land Use GAP Types (miles crossed)						Overall Residual Impacts for Existing Land Use GAP Types (miles crossed)		
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland	None	Low	Moderate
Applicant's Proposed Action	40.4	0.2	7.2	0.2	0.1	11.7	21.0	0.0	40.1	0.3
Variation S5-A1	*7.4*	*0.0*	*0.6*	*0.0*	*0.0*	*5.2*	*1.6*	*0.0*	*7.4*	*0.0*
Variation S5-A2	*7.4*	*0.0*	*0.9*	*0.0*	*0.0*	*4.0*	*2.5*	*0.0*	*7.4*	*0.0*
Variation S5-B1	*2.5*	*0.0*	*0.2*	*0.1*	*0.1*	*0.2*	*1.9*	*0.0*	*2.4*	*0.1*
Variation S5-B2	*2.8*	*0.9*	*0.1*	*0.0*	*0.0*	*0.0*	*1.8*	*0.0*	*1.9*	*0.9*
Malheur S	43.5	0.1	7.5	0.1	0.0	10.5	25.3	0.0	43.4	0.1
Malheur A	43.1	0.1	6.9	0.1	0.0	9.6	26.4	0.0	43.0	0.1

Table 3-287. Residual Impacts for Existing Land Use Structures for Segment 5—Malheur

Alternative Route	Total Length (miles)	Residual Impacts for Each Structure Type (miles crossed)																		Overall Residual Impacts on Structures (miles crossed)		
		Building (Non-residence)		Other		Residential		Rest Stop		Mining/ Extraction		Outstructure		Communication Facility		Power Substation		Windmill				
		None	Low	None	Moderate	None	Moderate	None	Moderate	None	Low	None	Low	None	Low	None	Low	None	Low	None	Low	Moderate
Applicant's Proposed Action	40.4	40.4	0.0	40.4	0.0	40.4	0.0	40.4	0.0	40.3	0.1	40.2	0.2	40.4	0.0	40.4	0.0	40.4	0.0	40.1	0.3	0.0
Variation S5-A1	*7.4*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*0.0*
Variation S5-A2	*7.4*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*7.4*	*0.0*	*0.0*
Variation S5-B1	*2.5*	*2.5*	*0.0*	*2.5*	*0.0*	*2.5*	*0.0*	*2.5*	*0.0*	*2.5*	*0.0*	*2.5*	*0.0*	*2.5*	*0.0*	*2.5*	*0.0*	*2.5*	*0.0*	*2.5*	*0.0*	*0.0*
Variation S5-B2	*2.8*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*	*0.0*
Malheur S	43.5	43.5	0.0	43.5	0.0	43.5	0.0	43.5	0.0	43.5	0.0	43.5	0.0	43.5	0.0	43.5	0.0	43.5	0.0	43.5	0.0	0.0
Malheur A	43.1	43.1	0.0	43.1	0.0	43.1	0.0	43.1	0.0	43.1	0.0	43.0	0.1	43.1	0.0	43.1	0.0	43.1	0.0	43.0	0.1	0.0

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would result in 0.3 mile of moderate impacts on existing land uses where the reference centerline of the route crosses forest/woodland and agricultural areas that result in short-term conflicts with agricultural production or natural resource development. These temporary impacts associated with construction could include detouring of roads, removal of fencing, or non-intentional damage to property. In some cases, access to existing commercial or agricultural operations may be periodically hindered in areas where public and employee access is prohibited for safety reasons. Impacts resulting from the operation of the Applicant's Proposed Action Alternative would likely be minimal as agricultural operations could persist adjacent to and within areas of the right-of-way where transmission facilities could span agricultural features. No high impacts associated with Applicant's Proposed Action Alternative would be expected. Refer to Table 3-255 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 5.

Variations S5-A1 and S5-A2

No moderate or high impacts associated with Variations S5-A1 and S5-A2 would be expected.

Variations S5-B1 and S5-A2

Variations S5-B1 and S5-B2 would result in 0.1 mile of moderate impacts on existing land uses where the reference centerline crosses forest/woodland areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high residual impacts associated with these variations would be expected.

Malheur S Alternative

The Malheur S Alternative would result in 0.1 mile of moderate impacts on existing land uses where the reference centerline of the route crosses agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 5. No high impacts associated with this alternative would be expected. Refer to Table 3-255 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 5.

Malheur A Alternative

The Malheur A Alternative would result in 0.1 mile of moderate impacts on existing land uses where the reference centerline of the route crosses agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These impacts would be similar to those described for the Applicant's Proposed Action Alternative for Segment 5. No high impacts associated with this alternative would be expected. Refer to Table 3-255 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 5.

Conclusions

In Segment 5, no high residual impacts are anticipated on existing land uses from any of the alternatives. Moderate residual impacts associated with Segment 5 alternative routes would occur where the Project would cross agricultural or forested/woodland areas. The lengths of the alternative routes in this segment range from 40.4 miles (Applicant's Proposed Action Alternative) to 43.5 miles

(Malheur S Alternative). Overall, moderate residual impacts on existing land uses would range from approximately 0.1 mile (Malheur S and Malheur A alternatives) to 0.3 mile (Applicant's Proposed Action Alternative). The Applicant's Proposed Action Alternative would have the least effects on existing land uses among the alternative routes in Segment 5. There is no notable in impacts on existing land uses among the variations.

Timber Management

No forested vegetation, and, thus, no timber resources, is crossed by the alternatives and route variations in Segment 5.

Conclusions

No identifiable impacts on timber management would occur on any alternative route or variation analyzed in Segment 5.

Fire Management

Refer to the discussion in the Effects Common to All Alternatives section.

Conclusions

There is no discernable difference in impacts on fire management among the alternative routes and variations analyzed in Segment 5.

Zoning

The result of the effects analysis for zoning for the alternatives and route variations in Segment 5 are described below in terms of miles crossed of EFU or ERU zones. As discussed in Effects Common to All Alternatives for Zoning there are no identified zones crossed that prohibit the development of the B2H Project facilities; however, in areas where the B2H Project crosses EFU or ERU zones, the Applicant would have to demonstrate necessity as described in Section 3.2.6.2 Regulatory Framework. In all cases the potential effect of not demonstrating necessity could result in non-conformance with Oregon Statewide Planning Goals. Refer to MV-13 for locations of EFU and ERU zoning.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses 1.9 miles of EFU zoning and 38.4 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S5-A1

The Variation S5-A1 crosses 1.4 miles of EFU zoning and 6.0 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S5-A2

The Variation S5-A2 does not cross any EFU zoning and 2.5 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S5-B1

The Variation S5-B1 does not cross any EFU zoning and 6.0 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S5-B2

The Variation S5-B2 crosses 1.4 miles of EFU zoning and 1.4 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Malheur S Alternative

The Malheur S Alternative crosses 0.5 mile of EFU zoning and 42.9 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Malheur A Alternative

The Malheur A Alternative crosses 0.5 mile of EFU zoning and 42.5 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Conclusions

Because the Applicant has elected to demonstrate compliance with statewide planning goals by under Path B, the EFSC would determine whether the project complies with applicable Land Conservation and Development Commission rules and land-use statutes (including statewide planning goals), and any applicable, substantive criteria from each county's local comprehensive plan and land-use regulations. There is no notable difference among Segment 5 alternative routes or variations with regard to zoning. All cross similar distances of EFU zones.

Military Training

Table 3-284 describes the MTRs crossed for the alternatives and route variations in Segment 5.

Applicant's Proposed Action Alternative

The types of impacts on military training in special-use airspace would be similar to those described for the Applicant's Proposed Action for Segment 2.

Malheur S Alternative

Effects on military training in special-use airspace from the Malheur S Alternative would be the same as those described for the Applicant's Proposed Action Alternative.

Malheur A Alternative

Effects on military training in special-use airspace from the Malheur A Alternative would be the same as those described for the Applicant's Proposed Action Alternative.

Conclusions

There is no discernable difference in impacts on military training among the alternative routes analyzed in Segment 5.

Specially Designated Areas

Table 3-288 presents the specially designated areas crossed by the alternatives and route variations in Segment 5.

Table 3-288. Specially Designated Areas in Segment 5—Malheur (miles crossed)

Alternative Route	Total Length (miles)	Area of Critical Environmental Concern	Wildlife Area	Research Natural Area
Applicant's Proposed Action	40.4	0.0	0.0	0.0
Variation S5-A1	*7.4*	*0.0*	*0.0*	*0.0*
Variation S5-A2	*7.4*	*0.0*	*0.0*	*0.0*
Variation S5-B1	*2.5*	*0.0*	*0.0*	*0.0*
Variation S5-B2	*2.8*	*0.0*	*0.0*	*0.0*
Malheur S	43.5	1.5	0.0	0.0
Malheur A	43.1	2.5	0.0	0.0

Applicant's Proposed Action Alternative and Variations

This alternative route and variations do not cross any specially designated areas, thus no identifiable impacts would occur.

Malheur S Alternative

The Malheur S Alternative crosses 1.5 miles of the Owyhee River Below the Dam ACEC (Link 5-30). This ACEC is identified as an avoidance area for new rights-of-way in the SEORMP. Thus, granting rights-of-way within this area should be avoided to the extent possible. However, new rights-of-way may be granted if there is minimal conflict with identified resource values and impacts can be mitigated.

This ACEC is being managed for the high scenic values of diverse landscape elements in a substantially natural setting; the presence of a special status plant species (Mulford's milkvetch), the rare presence of a black cottonwood gallery in a riverine system; and the combined wildlife values of diverse habitat types supporting a large number of wildlife species and important migratory corridor for neotropical birds. As discussed in the Mitigation Planning and Effectiveness section, application of Mitigation Measures 1, 2, 5, 6, 8, 12, 13, 14, and 15 on the resources present in this area would minimize the potential effects of the B2H Project and management of the area for the established objectives would not be precluded. Temporary disturbance to the special status plant species and wildlife for which this ACEC is managed is anticipated during construction. Refer to Sections 3.2.3, 3.2.4, 3.2.8, and 3.2.12 for further description of potential effects on vegetation, wildlife, recreation, and visual resources in this ACEC.

Malheur A Alternative

The Malheur A Alternative crosses 2.5 miles of the Owyhee River Below the Dam ACEC (Link 5-35). Effects on the ACEC will be similar to those discussed under the Malheur S Alternative; however this alternative crosses the ACEC for 1.0 mile longer within the West-Wide Energy Corridor.

Conclusions

The Applicant's Proposed Action Alternative and variations do not cross any specially designated areas in Segment 5. Both the Malheur S and Malheur A Alternatives cross the Owyhee River Below the Dam ACEC. Malheur A Alternative also crosses this ACEC but is located in a designated utility corridor (WWEC).

SEGMENT 6—TREASURE VALLEY

Land Ownership, Utility Corridors, and Parallel Facilities

Table 3-289 and Table 3-290 present the miles of land ownership, utility corridors, and parallel facilities crossed for the alternatives and route variations in Segment 6.

Table 3-289. Land Ownership and Utility Corridors Inventory Data and Residual Impacts for Segment 6—Treasure Valley (miles crossed)

Alternative Route	Total Length (miles)	Land Ownership						Utility Corridors		
		Bureau of Land Management	Bureau of Reclamation	Department of Defense	U.S. Forest Service	State	Private	Resource Management Plan	West-Wide Energy Corridor	Percent within Utility Corridor
Applicant's Proposed Action	28.0	21.4	0.0	0.0	0.0	2.4	4.2	11.4	11.4	40.7
Variation S6-A1	*9.3*	*8.1*	*0.0*	*0.0*	*0.0*	*0.0*	*1.2*	*0.0*	*0.0*	*0.0*
Variation S6-A2	*8.9*	*5.8*	*0.0*	*0.0*	*0.0*	*0.7*	*2.4*	*2.7*	*2.4*	*30.3*
Variation S6-B1	*14.4*	*10.7*	*0.0*	*0.0*	*0.0*	*2.4*	*1.3*	*10.7*	*10.7*	*74.3*
Variation S6-B2	*14.1*	*10.3*	*0.0*	*0.0*	*0.0*	*2.8*	*1.0*	*10.3*	*10.3*	*73.0*

Applicant's Proposed Action Alternative

This alternative crosses predominately BLM-administered lands (21.4 miles). Other jurisdictions crossed include private lands (4.2 miles) and state lands (2.4 miles). This alternative is located within an RMP corridor (11.4 miles) for the SEORMP area as well as the West-Wide Energy Corridor utility corridor (11.4 miles). The 2016 368 Corridor Study is ongoing. However, some segments of existing West-Wide Corridors are identified as corridors of concern within the Owyhee Field Office due to location of the corridor through sensitive resources. This concern does not apply to the entire corridor, therefore, additional agency coordination may be required for the use of existing West-Wide Energy Corridors during final design of the B2H Project.

The Applicant's Proposed Action Alternative is colocated (within 300 feet of route centerline) of existing roadway faculties for 6.7 miles. In addition, this alternative is sited parallel (300 to 2,000 feet from route centerline) to existing 500-kV (7.5 miles), a 230-kV (1.2 miles) and 69-kV (0.8 mile) transmission lines as well as existing road facilities (17.3 miles).

Table 3-290. Parallel Facilities in Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Parallel Linear Facilities (within 300 feet of reference centerline) (miles)							Parallel Linear Facilities (from 300 feet to 2,000 feet from reference centerline) (miles)							Total Miles Parallel Linear Facilities (within 300 feet)	Total Miles Parallel Linear Facilities (from 300 to 2,000 feet)	Total Number of Linear Facility Crossings
		69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads	69-kV	115-kV	138-kV	230-kV	500-kV	Pipeline	Roads			
Applicant's Proposed Action	28.0	0.2	0.0	0.0	0.0	0.2	0.0	6.7	0.8	0.0	0.0	1.2	7.5	0.0	17.3	6.9	17.7	43
Variation S6-A1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*5.1*	*1.6*	*5.1*	*11*
Variation S6-A2	*8.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.3*	*0.0*	*0.0*	*0.0*	*0.0*	*4.8*	*0.0*	*6.2*	*1.3*	*7.1*	*10*
Variation S6-B1	*14.4*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*4.0*	*0.8*	*0.0*	*0.0*	*0.0*	*4.5*	*0.0*	*9.7*	*4.0*	*9.7*	*25*
Variation S6-B2	*14.1*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*4.1*	*0.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*7.8*	*4.1*	*7.8*	*24*

Variation S6-A1

Variation S6-A1 shares the same alignment as the Applicant's Proposed Action Alternative for 9.3 miles. This variation is not located within a designated utility corridor and provides the same opportunity for colocation and siting with parallel facilities as the Applicant's Proposed Action Alternative.

Variation S6-A2

This variation is located within an RMP utility corridor (2.7 miles) for the Owyhee Field Office and within the West-Wide Energy Corridor utility corridor (2.4 miles). Variation S6-A2 provides more opportunity for siting with parallel facilities than Variation S6-A1. This variation is sited parallel (300 to 2,000 feet from variation centerline) to an existing 500-kV transmission line (4.8 miles) and existing roadway facilities (6.16 miles).

Variation S6-B1

Variation S6-B1 shares the same alignment as the Applicant's Proposed Action Alternative for 14.4 miles. This variation is located within an RMP utility corridor (10.7 miles) for the Owyhee Field Office and within the West-Wide Energy Corridor utility corridor (10.7 miles).

Variation S6-B1 provides more opportunity for siting with parallel facilities than S6-B2. This variation is sited parallel (300 to 2,000 feet from variation centerline) to an existing 500-kV transmission line (4.5 miles) and existing roadway facilities (9.7 miles).

Variation S6-B2

Variation S6-B2 crosses predominately BLM-administered lands (10.3 miles) and state lands (2.8 miles). Other jurisdictions crossed include private lands (1.0 mile). This variation is located within an RMP utility corridor (10.3 miles) for the Owyhee Field Office and within the West-Wide Energy Corridor utility corridor (10.3 miles).

Variation S6-B2 provides less opportunity for colocation or siting parallel to existing facilities since it is not sited parallel to the existing 500-kV transmission line.

Conclusions

There is no notable difference in land ownership or parallel linear facilities among the variations analyzed in Segment 6. Variation S6-A2 makes the most use of designated utility corridor.

Existing Land Use

Table 3-291 and Table 3-292 present the residual impacts on existing land use types and structures for all alternative routes and route variations in Segment 6. For locations of residual impacts described below refer to MV-13.

Table 3-291. Existing Land Use Inventory Data and Overall Residual Impacts for Segment 6—Treasure Valley										
Alternative Route	Total Length (Miles)	Resource Inventory for Existing Land Use GAP Types (miles crossed)						Overall Residual Impacts for Existing Land Use GAP Types (miles crossed)		
		Agriculture	Bare Ground, Cliff, Talus	Developed/ Disturbed	Forest/ Woodland	Grassland	Shrubland	None	Low	Moderate
Applicant's Proposed Action	28.0	0.5	0.7	0.1	0.2	12.9	13.6	0.0	27.2	0.8
Variation S6-A1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*4.8*	*4.5*	*0.0*	*9.3*	*0.0*
Variation S6-A2	*8.9*	*0.0*	*0.2*	*0.0*	*0.0*	*4.1*	*4.6*	*0.0*	*8.9*	*0.0*
Variation S6-B1	*14.4*	*0.1*	*0.7*	*0.1*	*0.1*	*5.8*	*7.6*	*0.0*	*14.1*	*0.3*
Variation S6-B2	*14.1*	*0.1*	*1.4*	*0.2*	*0.2*	*3.7*	*8.5*	*0.0*	*13.8*	*0.3*

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would result in 0.8 mile of moderate impacts on existing land uses where the reference centerline of the route crosses forest/woodland and agricultural areas that could result in short-term conflicts with agricultural production or natural resource development. These temporary impacts associated with construction could include detouring of roads, removal of fencing, or non-intentional damage to property. In some cases, access to existing commercial or agricultural operations may be periodically hindered in areas where public and employee access is prohibited for safety reasons. Impacts resulting from the operation of the Applicant's Proposed Action Alternative would likely be minimal as agricultural operations could persist adjacent to and within areas of the right-of-way where transmission facilities could span agricultural features. No high impacts associated with Applicant's Proposed Action Alternative would be expected. Refer to Table 3-262 for information regarding structures crossed or adjacent to alternative routes and route variations in Segment 6.

Variations S6-A1 and S6-A2

No residual moderate or high impacts associated with the Variations S6-A1 and S6-A2 would be expected.

Variations S6-B1 and S6-B2

Variations S6-B1 and S6-B3 would result in 0.3 mile of moderate impacts on existing land uses where the reference centerline of the route crosses forest/woodland and agricultural areas resulting in similar impacts as described for the Applicant's Proposed Action Alternative. No high impacts associated with these variations would be expected.

Table 3-292. Residual Impacts for Existing Land Use Structures for Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Residual Impacts for Each Structure Type (miles crossed)																		Overall Residual Impacts on Structures		
		Building (Non-residence)		Other		Residential		Rest Stop		Mining/ Extraction		Outstructure		Communication Facility		Power Substation		Windmill				
		None	Low	None	Moderate	None	Moderate	None	Moderate	None	Low	None	Low	None	Low	None	Low	None	Low	None	Low	Moderate
Applicant's Proposed Action	28.0	28.0	0.0	27.9	0.1	28.0	0.0	28.0	0.0	28.0	0.0	28.0	0.0	28.0	0.0	27.9	0.1	28.0	0.0	27.8	0.1	0.1
Variation S6-A1	*9.3*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*	*0.0*
Variation S6-A2	*8.9*	*8.8*	*0.1*	*8.9*	*0.0*	*8.9*	*0.0*	*8.9*	*0.0*	*8.9*	*0.0*	*8.8*	*0.1*	*8.9*	*0.0*	*8.9*	*0.0*	*8.9*	*0.0*	*8.8*	*0.1*	*0.0*
Variation S6-B1	*14.4*	*14.4*	*0.0*	*14.3*	*0.1*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*14.3*	*0.0*	*0.1*
Variation S6-B2	*14.1*	*14.1*	*0.0*	*14.1*	*0.0*	*14.1*	*0.0*	*14.1*	*0.0*	*14.1*	*0.0*	*14.1*	*0.0*	*14.1*	*0.0*	*14.1*	*0.0*	*14.1*	*0.0*	*14.1*	*0.0*	*0.0*

Conclusions

In Segment 6, no high residual impacts are anticipated on existing land uses. Moderate residual impacts associated with the Applicant's Proposed Action Alternative and variations would occur where the reference centerline crosses agricultural or forested/woodland areas, and existing structures. There is no notable difference among variations with regard to impacts on existing land uses in Segment 6.

Timber Management

Applicant's Proposed Action Alternative

No forested vegetation is crossed by the Applicant's Proposed Action in Segment 6, thus no identifiable impacts on timber management would occur.

Variations S6-A1, S6-A2, and S6-B1

No forested vegetation is crossed by these variations, thus no identifiable impacts on timber management would occur.

Variation S6-B2

Variation S6-B2 crosses 0.1 mile of forested vegetation. Trees would be removed where present in this location as needed for required conductor clearance in the right-of-way. Because the trees present in this location are not part of a forested landscape, effects on timber management are not anticipated. Any private or personal use of timber in this location may be affected by the removal of trees within the B2H Project right-of-way.

Conclusions

Variation S6-B2 crosses forested vegetation. However, no identifiable impacts on timber management are anticipated in this location. Thus, there is no discernable difference in impacts on timber management among the Applicant's Proposed Action Alternative and route variations analyzed in Segment 6.

Fire Management

Refer to the discussion in the Effects Common to All Alternatives section.

Conclusions

There is no discernable difference in impacts on fire management among the Applicant's Proposed Action Alternative and route variations analyzed in Segment 6.

Zoning

The result of the effects analysis for zoning for the alternatives and route variations in Segment 6 are described below in terms of miles crossed of EFU or ERU zones. As discussed in Effects Common to All Alternatives for Zoning there are no identified zones crossed that prohibit the development of the B2H Project facilities; however, in areas of Oregon where the B2H Project crosses EFU or ERU zones, the Applicant would have to demonstrate necessity as described in Section 3.2.6.2 Regulatory Framework. In all cases the potential effect of not demonstrating necessity could result in non-

conformance with Oregon Statewide Planning Goals. Refer to MV-13 for locations of EFU and ERU zoning.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative does not cross any EFU zoning but does cross 4.1 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S6-A1

The Variation S6-A1 does not cross any EFU zoning but does cross 2.6 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S6-A2

The Variation S6-A2 crosses 0.3 mile of EFU zoning and 1.8 miles of ERU Zoning. Potential effects are discussed in Effects Common to All Alternatives.

Variation S6-B1

The Variation S6-B1 does not cross any EFU or ERU zoning, thus no identifiable impacts would occur on property zoned EFU or ERU.

Variation S6-B2

The Variation S6-B2 does not cross any EFU or ERU zoning, thus no identifiable impacts would occur on property zoned EFU or ERU.

Conclusions

Because the Applicant has elected to demonstrate compliance with statewide planning goals by under Path B, the EFSC would determine whether the B2H Project complies with applicable Land Conservation and Development Commission rules and land-use statutes (including statewide planning goals), and any applicable, substantive criteria from each county's local comprehensive plan and land-use regulations. There is no notable difference among the Applicant's Proposed Action and variations with regard to zoning.

Military Training

Table 3-289 describes the MTRs crossed for the alternatives and route variations in Segment 6.

Applicant's Proposed Action Alternative

The types of impacts on military training in special-use airspace would be similar to those described for the Applicant's Proposed Action Alternative for Segment 2. However, only 1 miles of special-use airspace is crossed within Segment 6.

The Applicant's Proposed Action Alternative route variations would not cross MTRs; therefore, no effects are anticipated to occur.

Conclusions

There is no discernable difference in impacts on military training among the Applicant's Proposed Action Alternative and variations analyzed in Segment 6.

Specially Designated Areas

Applicant's Proposed Action Alternative

Construction of the Applicant's Proposed Action Alternative would temporarily disturb approximately 193 acres in the BLM Hard Trigger herd management area, which includes 66,063 total acres of public and other land within the BLM Owyhee Field Office. The horses share the herd management area with other wildlife, including deer, antelope, and upland game birds. Because construction would affect less than 1 percent of the land within the Hard Trigger Herd Management Unit and would be located near the northeastern boundary of the herd management area, direct and indirect construction and operations effects on wild horse herd management operations are anticipated to be low.

Variation S6-A1 and S6-A2

Variations S6-A1 and S6-A2 would not cross the Jump Creek ACEC or the Hard Trigger herd management area. Therefore, no identifiable impacts are anticipated to these resources.

Variation S6-B1

Impacts would be the same as those discussed for the Applicant's Proposed Action Alternative.

Variation S6-B2

The Jump Creek ACEC is not within the 250-foot right-of-way for Variation S6-B2; therefore, no identifiable impacts are anticipated to this resource. Impacts on the Hard Trigger herd management area would be the same as those discussed for the Applicant's Proposed Action Alternative.

Conclusions

There would be no identifiable impacts on the Jump Creek ACEC from the Applicant's Proposed Action Alternative or route variations analyzed in Segment 6. The Applicant's Proposed Action Alternative, Variation S6-B1, and Variation S6-B2 would have short-term, localized effects on the Hard Trigger herd management area. Variations S6-A1 and S6-A2 avoid the Hard Trigger herd management area.

3.2.7 AGRICULTURE

3.2.7.1 INTRODUCTION

This section describes agricultural resources in eastern Oregon and western Idaho that would be affected by the proposed B2H Project. This includes the regulatory framework, issues identified for analysis, methodology, affected environment, and environmental consequences.

3.2.7.2 REGULATORY FRAMEWORK

FEDERAL

Farmland Protection Policy Act

Prime and Unique Farmland

Federal legislative acts addressing the management and protection of prime or unique farmland include the Farmland Protection Policy Act of 1984; Executive Order 11752 (1973); Executive Order 11988 (1973); Secretary of Agriculture Memorandum 1827; and Departmental Regulation 9500-003 (USDA 1983) for prime farmland. The Farmland Protection Policy Act is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible, federal programs are administered to be compatible with state, local governments, and private programs and policies to protect farmland. For the purpose of the Farmland Protection Policy Act, farmland is termed “Important Farmland” and includes prime farmland, unique farmland, and farmland of statewide or local importance (NRCS 2012, 2013).

Projects are subject to the Farmland Protection Policy Act if they may irreversibly convert farmland to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. Projects subject to the act are required to complete a Farmland Conversion Impact Rating form in conjunction with the NRCS to report potential conversion of important farmland. As per conversation with the NRCS point-of-contact for the Farmland Protection Policy Act for Oregon, the B2H Project does not need to complete the Farmland Conversion Impact Rating form because the B2H Project is not federally funded (Ron Raney, Farmland Protection Policy Act Oregon State Point-of-Contact, personal communication with Tamara Gertsch, Scott Whitesides, Renee Straub, and Cindy Smith, February 22, 2016). However, acreages of important farmland potentially affected are included in the Final EIS for comparison by alternative and route variation.

As defined in the Farmland Protection Policy Act (7 U.S.C. 4201), prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor and without intolerable soil erosion as determined by the U.S. Secretary of Agriculture. Prime farmland also includes land with the above characteristics but that is being used to produce livestock and timber. It does not include land already in, or committed to, urban development or water storage. Farmland of statewide importance is land in addition to prime farmland that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crops as determined by the appropriate state

agencies. These lands are almost prime farmlands and produce high yields of crops when managed with customary farming methods as indicated by the NRCS.

Clean Water Act

The Clean Water Act is a federal statute enacted in 1972 and enforced by the EPA. It established the structure for regulating discharges of pollutants into water, and made it unlawful to do so, unless a permit was obtained. The EPA's NPDES permit program uses these permits to control discharges of pollutants from point sources. A confined animal feeding operation (CAFO), including those that could be affected as part of the B2H Project, is considered a point source and is required to obtain this permit to protect surface and groundwater. To obtain a permit, all CAFOs must develop and implement a comprehensive nutrient management plan, which identifies how manure will be managed and other operational practices so as to minimize impacts on water quality and public health from pathogens and nutrients. Because of the value of the nutrients and organic matter in manure, land application is the most common method of using and disposing of manure (EPA 2015; National Association of State Departments of Agriculture Research Foundation 1999; USDA and EPA 1999).

The comprehensive nutrient management plan identifies the amount, form, source, timing, and placement of manure nutrients depending on the area of land to be fertilized, crop type, soil type, yield goals, manure excretion rates, manure form and source, management capabilities, and nutrient content of the manure. Calculations are performed to determine appropriate application rates that will minimize impacts on surface and groundwater (EPA 2010).

Conservation Reserve Program

The Conservation Reserve Program (CRP) was established by the USDA to improve water quality, prevent soil erosion, and reduce loss of wildlife habitat. It is the largest private-lands conservation program in the U.S. The voluntary program is administered by the Farm Service Agency and provides compensation to offset the costs from temporarily removing land from agricultural production. The owner or operator submits a bid to the program based on acreage of land to be converted to the conservation use. Not all land is eligible for the program. The program is competitive with a maximum number of 27.5 million acres permitted to be enrolled at any given time. CRP acres are managed under minimum 10-year contracts that can be renewed. The CRP is reauthorized periodically. The last reauthorization was the Agricultural Act of 2014 (Farm Service Agency 2015a; USDA 2014a; 2014b)

The Conservation Reserve Enhancement Program (CREP) is a sub program of CRP that targets specific environmental objectives and geographic regions. The program typically provides additional financial incentives beyond the CRP payments. For purposes of this analysis, CRP and CREP are not differentiated, as impacts would be similar to each.

Authorized activities consistent with soil conservation, water quality, and wildlife habitat may be permitted on CRP lands such as wind turbine installation or prescribed grazing. These activities would result in a minimum 25 percent reduction in the annual payment established for the CRP contract. If a landowner wishes to terminate a CRP contract, he/she would face a penalty of full repayment, with

interest, of all funds already received, plus a fee of 25 percent of rental payments received. However, the Secretary of Agriculture has the authority to release land from CRP without penalty (Stubbs 2014).

The FSA handbook Agricultural Resource Conservation Program 2-CRP (Revision 5) is the most recent policy regarding CRP lands. This handbook indicates that CRP lands may be removed from contracts at no penalty to the landowner when CRP lands are needed for public use. CRP lands temporarily disturbed for construction would need to be reclaimed in coordination with the NRCS. These lands would not be removed from the contract. Where permanent project facilities occupy CRP lands, the acres would be calculated and these lands would be removed from the CRP contract. Annual payments to the landowner would be reduced commensurate with the number of acres removed. The remaining lands in the CRP contract would continue in the contract until renewed or the contract expires (Farm Service Agency 2015b).

Taylor Grazing Act

The Taylor Grazing Act of 1934 provides the basis for the BLM to provide public land for livestock grazing. The BLM and USFS administer and manage livestock grazing through permits and leases issued to qualified applicants, and the extent of grazing allowed on these lands can be affected by factors such as drought, wildfire, and market conditions. The BLM's overall objective in managing livestock grazing on public rangelands is to "…ensure the long-term health and productivity of these lands and to create multiple environmental benefits…" The BLM achieves this objective through use of "rangeland health standards and guidelines" which "…describes specific conditions needed for public land health…" The development and application of these standards and guidelines are to achieve the four fundamentals of rangeland health, identified in Title 43 CFR § 4180.1, including:

- Watersheds are in, or are making significant progress toward properly functioning physical condition, including their upland, riparian wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that is in balance with climate and landform; and maintain or improve water quality, water quantity, and timing and duration of flow.
- Ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow are maintained, or there is significant progress toward their attainment, to support healthy biotic populations and communities.
- Water quality complies with state water quality standards and achieves, or is making significant progress toward achieving, established BLM management objectives, such as meeting wildlife needs.
- Habitats are, or are making significant progress toward being, restored or maintained for federal threatened and endangered species, federal proposed or candidate threatened and endangered species, and other special status species.

STATE OF OREGON

High-value Farmland and Soils

ORS Chapter 197 directs Oregon counties to develop county comprehensive plans consistent with the applicable statewide planning goals developed by the Land Conservation and Development Commission. Each comprehensive plan is accompanied by a set of implementing measures. The two most common measures are zoning and land-division ordinances. Every city and county in Oregon has adopted such land-use controls. Nineteen statewide planning goals are defined, including three goals that are particularly relevant to siting transmission lines and which are applicable in all five Oregon counties in which the B2H Project would be located. Goal 3 is discussed here as it relates to agriculture in the B2H Project study area, and the other two goals are discussed in Section 3.2.6

Goal 3—Agricultural Lands

Goal 3 is designed to preserve and maintain agricultural lands for farm use. To comply with this goal, an applicant for a site certificate from EFSC must demonstrate compliance with applicable statutes (ORS 215.283 and 215.275) and Land Conservation and Development Commission administrative rules (OAR Chapter 660, Division 33) relating to exclusive farm use (EFU) lands. More information concerning EFU lands is available in the Zoning section.

Division 33 of the Land conservation and Development Commission administrative rules defines “High-Value Farmland” as “land in a tract composed predominantly of soils that are: (A) Irrigated and classified prime, unique, Class I or II; or (B) Not irrigated and classified prime, unique, Class I or II.” In addition to this, high-value farmland includes specified perennials such as vineyards and berries, but not including seed crops such as hay or alfalfa. The BLM contacted the Oregon Department of Agriculture to determine the best way to include an analysis of potential impacts on high-value farmland in this EIS. For simplicity, while still being representative of the potential impacts on high-value farmland, the BLM has taken the advice of a representative with the Oregon Department of Agriculture to disclose impacts on high-value soils, not taking into account land ownership or perennial crops (Department of Land Conservation and Development 2008; J. Johnson, personal communication with author, February 16, 2016).

The Water Code

All water in Oregon is publicly owned. If an individual or entity, such as an agricultural operation, wants to use publicly owned water, they must apply for a permit or right from the Water Resources Department. The water right obtained would specify where the water could be used, where it would come from, and how it could be used. Oregon’s Water Code, similar to other western states, has four fundamental provisions:

- Beneficial purpose without waste: permits for water are granted only if the water will have a beneficial purpose without waste.
- Priority: The principle of prior appropriation applies (i.e., the first entity to obtain a water right has priority to the water in times of shortage).

- Appurtenance: Generally, water rights are attached to lands. For instance, if land is sold, the water rights attached to the land are sold with it. A water right for irrigating a particular section of land cannot be used to irrigate other land.
- Must be used: a water right, as specified in the right, must be used at least once every five years. With five consecutive years of nonuse, the right is forfeited. For instance, if water rights are obtained to water 40 acres, but for five consecutive years only 20 acres are watered, the water right is subject to cancellation.

The Water Resources Commission adopts programs to set policies for managing major river basins to protect existing water rights, as well as restore and preserve aquifers. The river basins the B2H Project runs through include the Umatilla, Grande Ronde, Powder, Malheur, and Owyhee. Basins may be designated “critical groundwater areas” to address water supply, water quality, or thermal issues.

Within the study corridor, the Butter Creek, Stage Gulch, and Ordnance Basalt areas in Morrow and Umatilla Counties and Cow Valley near Vale have all been designated critical groundwater areas. Thus, no new permits can be issued in these areas (Oregon Secretary of State 1991; Oregon Water Resources Department 2006, 2013; Ward 2010).

If the construction of a transmission line were to take irrigated agricultural land out of production for more than five consecutive years, the water rights tied to that piece of land could be reduced or cancelled. If this takes place in a critical groundwater area, these water rights could potentially not be reobtainable in the critical groundwater area.

STATE OF IDAHO

The Idaho Local Land Use Planning Act found in Idaho Code Title 67 Chapter 65 requires city and county governments to define agricultural land. This is accomplished through zoning ordinances and is discussed in Section 3.2.6 Zoning Regulatory Framework (State of Idaho Legislature 2003; Witt and Nemnich 2011).

OREGON COUNTIES

Oregon counties have the authority to develop county comprehensive plans consistent with the statewide planning goals. Implementing measures as part of these comprehensive plans include zoning for agricultural uses such as EFU. For information related to EFU, refer to the Zoning discussion in the Regulatory Framework section of Section 3.2.6.

IDAHO COUNTIES

Idaho in the Idaho Local Land Use Planning Act requires counties to define agricultural land. Regulations governing agricultural land are accomplished through zoning ordinances. For information related to these ordinances and the Owyhee County Comprehensive Plan, refer to the Zoning discussion of Section 3.2.6 Regulatory Framework (State of Idaho Legislature 2003).

3.2.7.3 Issues Identified for Analysis

Issues related to agriculture were raised by the public, Native American tribes and federal and state agencies during scoping. The list below is a summary of the issues identified during scoping and Draft EIS comments that are analyzed in this EIS, as well as issues that must be considered as required by applicable laws or regulations.

- Would there be negative economic effects on agricultural and ranching operations? (Refer to Section 3.2.17)
- How much Exclusive Farm Use land would be affected? (Refer to Section 3.2.6)
- What would be the impacts on agricultural and ranching operations?
- What would be the impacts on irrigated farmland and irrigation water use?
- What would be the effects of spraying herbicides on agricultural crops adjacent to the right-of-way?
- What would be the impacts on prime or unique farmlands and high-value farmlands?
- Do transmission lines pose a danger for agricultural workers? (Refer to Section 3.2.18)

3.2.7.4 Methods

The general study methods used to analyze the impacts of the B2H Project in this EIS are described in Sections 3.1.3 and 2.5.1. This section discusses how the study methods are applied to assess the impacts of the B2H Project on agriculture.

Data Sources

Because of comments received on the Draft EIS, the analyses completed for this Final EIS assessment were conducted using the best available spatial data and digitized data using aerial imagery. Data sources include:

- USDA National Agricultural Statistics Service CropScape-Cropland Data Layer;
- Agricultural irrigation as digitized from aerial imagery;
- CAFOs data obtained from the Oregon Department of Agriculture;
- Idaho CAFOs digitized from aerial imagery;
- Boardman Tree Farm as digitized from aerial imagery;
- NRCS SSURGO/STATSGO2 soils data;
- CRP data as analyzed by the USDA Farm Service Agency;
- BLM and USFS livestock grazing allotments; and
- Self-reported dairies.

For purposes of the analysis, the data were classified as follows. Refer also to MV-16 through MV-18.

Existing Agriculture

USDA National Agricultural Statistics Service CropScape-Cropland Data Layer

This dataset is a raster, georeferenced, crop-specific land cover data layer with a resolution of 30 meters. It was created by the USDA National Agricultural Statistics Service using satellite imagery from

the 2015 growing season. It contains information on specific crops growing across the entire B2H Project analysis area. This is representative of one growing season only; it is common for land to be idle one year and in production the next, and also for crops being grown to change annually. For purposes of the socioeconomics analysis and the availability of census data, the individual crops have been classified into the following categories:

- Fallow/Idle Cropland: Fallow Idle Cropland
- Field Crops: alfalfa, barley, camelina, canola, clover/wildflowers, corn, double crop barley/corn, double crop winter wheat/corn, dry beans, durum wheat, hops, millet, mint, mustard, oats, other crops, other hay/non alfalfa, popcorn or corn, rye, sod/grass seed, sorghum, soybeans, spring wheat, sugar beets, sunflower, triticale, and winter wheat
- Fruit and Tree Nuts: apples, apricots, blueberries, cantaloupes, cherries, grapes, nectarines, other tree crops, peaches, pears, plums, and watermelons
- Grass/Pasture: grass/pasture
- Vegetables: asparagus, cabbage, carrots, gourds, greens, herbs, lettuce, miscellaneous vegetables and fruits, onions, peas, peppers, potatoes, pumpkins, radishes, squash, sweet corn, and turnips

Agriculture Irrigation

This data was digitized from aerial imagery using classification methods similar to those used by the USGS. Classification was based solely on image interpretation with no field verification. Errors are likely because of misinterpretation of the imagery and lack of sufficient information to make an informed decision (Buto et al. 2014):

- Center Pivot Irrigation
- Flood Irrigation
- Other Mechanized Irrigation: wheel lines, hand lines, stationary sprinklers, drip irrigation, or residential sprinklers
- Dryland (ground appears to be cultivated, but there is no irrigation equipment readily visible in aerial imagery)

Confined Animal Feeding Operations

- Includes data on CAFOs obtained from the Oregon Department of Agriculture, Idaho CAFOs digitized from aerial imagery, and two self-reported dairies

Tree Farm

- The Boardman Tree Farm data was digitized from aerial imagery.

Important Farmland, High-value soils, and Conservation Reserve Program Lands:

Natural Resources Conservation Service Soil Survey Geographic Database/State Soil Geographic Database Soils Data

This soil types dataset is a compilation produced by the NRCS of the NRCS SSURGO data and the NRCS STATSGO data. This has been used to increase the coverage of inventoried soil types instead

of the SSURGO data, which was used in the Draft EIS. The NRCS has not completed the entire soils inventory for the study corridor, but this is the best available data at this time. In order to report separately on farmland and soils important to agriculture under the Farmland Protection Policy Act and Oregon law, this data has been classified two different ways, as “Important Farmland” and “High-value Soils” (refer to Regulatory Framework Section 3.2.7.2 for more information on these classifications).

Important Farmlands

Prime farmland if irrigated and drained, prime farmland if irrigated, and farmland of statewide importance. Note, other types of farmland listed in the Farmland Protection Policy Act (such as unique farmland) are not located within the 1-mile-wide study corridor as identified with the NRCS SSURGO/STATSGO soils data.

High-Value Soils

High-value soils are composed of irrigated capability classes I-II, nonirrigated capability classes I-II, and prime and unique farmland.

Conservation Reserve Program

Because this data is confidential information managed by the Farm Service Agency, this data is subject to privacy restrictions prohibiting it from being displayed in this document. The BLM was not able to obtain it for use in this analysis. However, the Farm Service Agency completed the analysis for this project and provided the results of potential acreages affected to the BLM. Acres of CRP are disclosed, which includes acres enrolled in the CREP.

Livestock Grazing

Pastures or allotments usually contain a large percentage of public land, but also can contain a large percentage of private land if an allotment is part of a grazing system. Because allotments are defined by fences, topography, or other land features, and not exact ownership boundaries, there are many instances where small parcels or slivers of public land are fenced in with areas outside of allotments. Other allotments are mostly private, but contain some parcel of public land fenced within. While each federal agency manages public lands within these allotments, agencies do not manage private land within the allotment. For purposes of analysis, BLM and USFS grazing allotment data are used as provided by the agencies. Miles crossed of grazing allotments are discussed as a whole rather than separately as private and public lands. Estimated animal unit months (AUMs) affected are disclosed only on federal grazing allotments because impacts occurring on private lands would not impact the public land AUM; however, miles crossed and disturbance acres are for entire allotments, regardless of jurisdiction.

ANALYSIS AREA

The study corridor for agriculture is 1-mile wide (i.e., 0.5 mile on either side of the alternatives and route variations).

Impact Assessment and Mitigation Planning

Criteria for Assessing Level of Impacts

Criteria developed to assess the level of potential effects on agriculture associated with implementation of the B2H Project are presented in Table 3-293. Refer to Sections 3.1.3 and 2.5.1 for information regarding how these criteria are implemented in the analysis process.

Table 3-293. Criteria for Assessing Level of Impacts on Agriculture

Level of Impacts	Description
High	• Areas where the B2H Project would create a direct long-term conflict with agricultural use and ranching operations (e.g., removal of irrigation infrastructure on irrigated farmland, removal of land used for crop production and irrigation, long-term interference with aerial spraying operations, etc.) • Areas where the B2H Project would conflict physically with any designated farmland areas (e.g., high-value soils, important farmland, Conservation Reserve Program) in a manner that would remove the ability to be managed as such • Areas where the B2H Project would conflict with any applicable adopted policy or management goal of the affected land-managing agency
Moderate	• Areas where the B2H Project would create a direct (short-term) and/or an indirect (short- or long-term) conflict with agricultural use and ranching operations (e.g., removal of land used for crop production on dryland farmland) • Areas where the B2H Project would indirectly affect any applicable adopted policy or management goal of the affected land-managing agency
Low	• Areas where land use is compatible with a transmission line (e.g., rangeland and/or grazing allotments) • Areas in which the effects, while long term, would not preclude use of the area for agricultural, ranching, and/or grazing uses • Areas in which effects would be temporary and reversible after construction is concluded • Areas where the B2H Project is located in a designated (federal or local) utility corridor

The impact analysis for important farmland and high-value soils is different than other resources because the high, moderate, and low criteria were not used to assess level of impacts quantitatively as was done for most other resources. Instead, the number of how many miles the B2H Project alternative routes cross these areas is presented, followed by a qualitative discussion (using the high, moderate, and low criteria) of how this crossing may affect these soil types.

Effects Analysis

Assessment of Initial Impacts

To determine initial impacts that could result from implementation of the B2H Project, the levels of potential effects on agriculture resources and operations were assessed based on the compatibility of the agricultural resource with the B2H Project, as reflected in the criteria presented in Table 3-293.

Mitigation Planning and Effectiveness

The POD (Idaho Power Company 2011) includes an Agricultural Protection Plan Framework (POD Appendix H), which would be completed prior to construction for the selected route and would include required mitigation measures to mitigate agricultural impacts**.** The POD would be adopted as a part of the conditions of approval of the right-of-way grant.

Table 2-7 contains design features of the B2H Project for environmental protection, which, as part of the B2H Project description, would be implemented during design and engineering and the construction, and operation and maintenance of the B2H Project. These design features would be implemented for the entirety of the B2H Project and are intended to avoid, minimize, or reduce interference with agricultural resources and operations. These design features include requirements such as reclamation of all construction areas, coordination with land owners for construction timing, salvaging topsoil for revegetation, and avoiding agricultural operations to the extent practicable.

For the selected alternative, individual rights-of-way for the B2H Project on private agricultural lands would be obtained by the Applicant either in fee by deed, or by perpetual easements. Property owners would be compensated for the right-of-way or easement. The Applicant would negotiate damage-related issues with private property owners during the easement acquisition process, such as reductions in the acreage available for cultivation.

The Applicant's Proposed Action Alternative and other alternative routes and route variations considered in the EIS have been sited to follow field boundaries and to avoid agricultural infrastructure to the extent possible. However, there are occasions where a route crosses these areas. If the case for the selected route, the Applicant would work with property owners prior to construction to determine best locations for the transmission line that would reduce impacts on the agricultural operations. The Applicant would negotiate modifications to the transmission line's original design, such as relocating structures or access roads (Idaho Power Company 2015).

B2H Project tower structures and other B2H Project facilities could be micro-sited outside the operational area of irrigation systems to reduce operation impacts. Locations of B2H Project facilities would be coordinated with landowners prior to construction to reduce impacts. For example, the typical span between transmission line structures would be 1300 feet for the B2H Project. Pivots are generally 2640 feet in diameter (half a mile), a distance preventing pivots from being spanned at the center. However, pivots can be spanned on edges using uncultivated pivot corners for locating structures. Although the right-of-way could cross a pivot field, irrigation (and many other agricultural operations) could continue within the right-of-way provided a transmission line structure does not impinge on the irrigation system's operational path (Idaho Power Company n.d.b).

Special access provisions in agricultural areas could be negotiated with the landowner to maintain existing practices. The residual effects disclosed in the Environmental Consequences section does not take into account the results of negotiations between the Applicant and the property owner. Rather, the analysis is based on the reference centerline for the alternatives and route variations and represents the worst case scenario.

Short-term impacts on livestock grazing would be minimized by performing construction activities when calving and lambing is not occurring and avoiding calving and lambing areas in the B2H Project right-of-way and/or in associated ancillary facilities. Long-term impacts on these calving and lambing operations would be low due to the minimal extent of disturbance on these calving and lambing areas from operation and maintenance. Construction timing stipulations for the selected alternative route will be

addressed in the POD. The Applicant would coordinate construction timing with affected landowners to minimize impacts on crop production.

All existing improvements, such as fences, gates, irrigation ditches, cattle guards, and reservoirs, would be maintained during construction and if damaged, would be repaired to preconstruction conditions or better. If pipelines or canals transporting water for livestock, wildlife, and crops are damaged by construction activities, the Applicant would repair them to landowner or land-managing agency specifications.

In addition to these design features, selective mitigation measures (refer to Table 2-13) would be applied in specific locations along the B2H Project to further reduce high or moderate initial impacts on agricultural resources and operations. The selective mitigation measures that would be applied to reduce impacts on agricultural resources and operations include:

- **Mitigation Measure 5 (Minimize Clearing for Operational Clearances)** This mitigation measure would be implemented wherever crop production or tree farms occur. It involves limiting vegetation disturbance within the right-of-way, except as needed for structure or conductor clearances. This would reduce production losses and maintain topsoil for agricultural purposes.
- **Mitigation Measure 6 (Limit New or Improved Accessibility to Areas Previously Inaccessible)** This mitigation measure would be implemented wherever crop production, tree farms, CAFOs, irrigated farmland, and CRP lands occur. It would require the Applicant to restore all newly created or improved access roads to their natural contour and vegetation. This would reduce long-term interference with agricultural operations following construction.
- **Mitigation Measure 8 (Span and/or Avoid Sensitive Features)** This mitigation measure would be implemented wherever crop production, tree farms, CAFOs, irrigated farmland, and CRP lands occur. It involves spanning agricultural land, selectively placing structures to avoid agricultural land, and realigning the centerline to be more compatible with agricultural operations and resources.

Residual Impacts

Residual impacts are those impacts on agricultural resources and operations that would remain despite the design features of the B2H Project for environmental protection, the Agricultural Protection Plan Framework in the POD and after the implementation of the selective mitigation measures. Table 3-294 presents the estimated level of residual impacts after implementation of selective mitigation measures.

Table 3-294. Summary of Initial and Residual Impacts on Agriculture			
Resource	**Initial Impacts**	**Selective Mitigation Measures Applied**	**Residual Impacts**
Existing Agriculture			
Confined Animal Feeding Operation	High	6,8	Low
Tree farms	High	5,6,8	High
Crop Production			
Field Crops	High	5,6,8	Moderate
Fruit and Tree Nuts	High	5,6,8	Moderate
Grass/Pasture	Moderate	6,8	Low
Vegetables	High	5,6,8	Moderate
Fallow/Idle Land	High	5,6,8	Moderate
Irrigation Types			
Dryland	Low	Not applicable	Low
Center Pivot	High	6,8	High
Other Mechanized	High	6,8	Moderate
Flood	High	6,8	Moderate
Protected Agriculture			
High-value soils	Not applicable	Not applicable	Not applicable
Conservation Reserve Program Lands	High	5,6,8	High
Grazing			
Grazing Allotments	Low	Not applicable	Low

While B2H Project structures could displace agricultural uses for the life of the B2H Project, the construction activities themselves may not affect all long-term agriculture. Operations of the B2H Project could permanently occupy the lands on which permanent B2H Project facilities are constructed, but most agricultural activities could continue within the right-of-way. The property owner could use the right-of-way as desired, subject to the negotiated terms in the easement agreement with the Applicant. Uses that would obstruct or impair the Applicant's ability to access the transmission line for maintenance would not be permitted (Idaho Power Company 2015).

Residual impacts on rangeland within grazing allotments crossed by the Proposed Action or alternatives would be low after the application of design features (refer to Table 2-7), which would include vegetation reclamation. In addition, during construction and maintenance, the Applicant would coordinate their activities with the BLM, USFS, other land-managing agencies, and/or private landowners.

Additional Analysis

In additional to the analysis described previously in this section, the construction disturbance and long-term surface disturbance of existing agriculture, important and high-value soils, and livestock grazing was estimated to allow comparison of alternatives and route variations. The estimation methods are described in Section 2.5.1 and are based on the B2H Project description and typical characteristics of a 500-kV transmission line presented in Chapter 2.

3.2.7.5 AFFECTED ENVIRONMENT

The section describes the existing condition of agriculture in the study corridor that could be affected by implementing the B2H Project. Refer also to MV-16, MV-17, and MV-18 in the Map Volume.

SEGMENT 1—MORROW-UMATILLA

Existing Agriculture

Segment 1 is the most agriculturally intensive segment in the B2H Project area. A variety of crops are grown in the region ranging from field crops such as alfalfa and corn, to fruit and tree nuts such as blueberries and cherries, to vegetables such as onions, peas, and peppers. Additionally, CAFOs are present, and an additional CAFO (not included in Table 3-295) is being constructed. There are three critical groundwater areas, including the Ordnance Basalt, Stage Gulch, and Butter Creek critical groundwater areas. This area is an excellent location for agriculture because of high-quality soils, low cost water, proximity to processing facilities, and flat topography.

Table 3-295. Inventory Data for Crop Types in Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Crop Type Crossed (acres)						Confined Animal Feeding Operations (count)[3]
		Fallow/Idle Cropland[1]	Field Crops[1]	Fruit and Tree Nuts[1]	Grass/ Pasture[1]	Vegetables[1]	Tree Farms[2]	
Applicant's Proposed Action	91.9	7,501	12,512	32	1,832	1,582	595	0
Variation S1-B1	*6.4*	*0*	*0*	*0*	*81*	*0*	*0*	*0*
Variation S1-B2	*6.4*	*0*	*0*	*0*	*88*	*0*	*0*	*0*
East of Bombing Range Road	92.3	7,506	12,684	35	1,877	1,681	663	0
Applicant's Proposed Action – Southern Route	99.1	6,252	12,570	31	1,547	1,579	595	0
West of Bombing Range Road – Southern Route	95.6	4,987	6,489	33	1,586	1,469	595	0
Longhorn	88.2	6,405	10,731	719	2,251	1,532	3,642	2
Interstate 84	84.7	5,808	10,661	394	1,949	2,920	1,135	3
Variation S1-A1	*18.5*	*2,792*	*4,113*	*0*	*38*	*570*	*0*	*1*
Variation S1-A2	*18.5*	*1,374*	*1,283*	*6*	*51*	*234*	*0*	*1*
Interstate 84 – Southern Route	93.4	4,680	10,752	394	1,666	2,918	1,135	3

Table Notes:
These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the U.S. Department of Agriculture CropScape
[2]Data source is the Boardman Tree Farm as digitized from aerial imagery
[3]Data source is the Oregon Department of Agriculture confined animal feeding operations and self-reported dairies.

The Boardman Tree Farm is located in the affected environment of Segment 1. This 25,000-acre farm grows hybrid poplars for lumber and wood chips, with approximately 600 trees per acre. The farm is irrigated with more than 9,000 miles of drip irrigation. A sawmill is located near the center of the farm,

which processes 2,000 acres of the trees each year (Amusing Planet 2013). The Boardman Tree Farm was recently sold and is being turned into irrigated agriculture and a dairy (Harbarger 2016). Because our data does not identify where this is occurring, the impacts discussed will be impacts on the Boardman Tree Farm as it currently exists in our data. However, the results are conservative in that they overestimate, rather than underestimate potential effects. In other words, impacts on the Boardman Tree Farm from the B2H Project would be greater than impacts on irrigated agriculture and a dairy because tree crops cannot be cultivated within the right-of-way.

Most of the cropland in the study corridor in Morrow and Umatilla counties is sprayed annually. An estimated 60 percent of spraying is applied aerially; 40 percent is applied by ground. More than 90 percent of the aerial spraying is performed by fixed-wing aircraft; 10 percent is applied by helicopter.

Table 3-295 identifies crops and CAFOs in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 1. Refer also to MV-16. There also are extensive tracts of irrigated farmland in the study corridor for Segment 1, including center pivot, flood, and other mechanized irrigation types. Dryland farming (i.e., no irrigation) also occurs in Segment 1 (refer to Table 3-296).

Table 3-296. Inventory Data for Irrigation Types in Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Irrigation Type Crossed (acres)				
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Center Pivot Count
Applicant's Proposed Action	91.9	20,751	4,928	1,206	1,192	84
Variation S1-B1	*6.4*	*0*	*0*	*0*	*0*	*0*
Variation S1-B2	*6.4*	*0*	*0*	*0*	*0*	*0*
East of Bombing Range Road	92.3	20,980	4,910	1,206	1,181	81
Applicant's Proposed Action – Southern Route	99.1	21,024	4,664	927	1,137	78
West of Bombing Range Road – Southern Route	95.6	10,942	3,675	89	1,263	66
Longhorn	88.2	16,809	4,914	1,206	4,084	81
Interstate 84	84.7	10,674	7,801	2,259	1,959	164
Variation S1-A1	*18.5*	*5,025*	*2,205*	*274*	*4*	*38*
Variation S1-A2	*18.5*	*1,499*	*876*	*290*	*250*	*17*
Interstate 84 – Southern Route	93.4	11,548	7,536	2,041	1,904	159

Table Note: Data source for this table includes cultivated farmland classified as dryland or as an irrigation type digitized from aerial imagery within the B2H Project 1-mile-wide study corridor for each alternative and variation. Center pivot count includes partial or full pivots within the 1-mile-wide study corridor for each alternative and variation.

Applicant's Proposed Action Alternative

The most common crop types in the study corridor for the Applicant's Proposed Action Alternative are field crops and fallow or idle farmland. Also present in the study corridor are grasslands/pasture, vegetable farming operations, orchards of fruit and tree nuts, and tree farms. No CAFOs are operating in the study corridor. Most irrigated farmland in the study corridor is irrigated by center pivot irrigation. There are 84 center pivots in the study corridor. Some irrigated farmland is irrigated with flood or other mechanized irrigation. The majority of cultivated farmland in the study corridor is dryland.

Variations S1-B1 and S1-B2

Only grassland/pasture is present in the study corridor; none of which is irrigated (refer to Tables Table 3-295 and Table 3-296). No CAFOs are present in the study corridor for these route variations.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The study corridor for the additional action along Bombing Range Road is similar to the study corridor for the Applicant's Proposed Action Alternative. The affected environment for the Design Option 1 additional action is a combination of those described for the Applicant's Proposed Action Alternative and the East of Bombing Range Road Alternative (described below). Refer to Figures 2-20 b and 2-20 c for a graphic portrayal of the Design Option 1 additional action.

Design Option 2

The study corridor and affected environment for the additional action along Bombing Range Road is similar to the study corridor for the East of Bombing Range Road Alternative (discussed below). In addition, the affected environment and study corridor extends to the east at the southern portion of Bombing Range Road where the road turns slightly to the east.

Design Option 3

The study corridor and affected environment for the additional action along Bombing Range Road is similar to the study corridor for the East of Bombing Range Road Alternative (below). In addition, the affected environment and study corridor extends to the east at the southern portion of Bombing Range Road where the road turns slightly to the east. The study corridor and affected environment also includes the area south east of the NWSTF Boardman where a new substation would be located as part of this option. This area includes dryland farmland.

East of Bombing Range Road Alternative

Similar to the Applicant's Proposed Action Alternative, the most common crop types in the study corridor for the East of Bombing Range Road Alternative are field crops and fallow or idle farmland. Also present in the study corridor are grasslands/pasture, vegetable farming operations, orchards of fruit and tree nuts, and tree farms. No CAFOs are operating in the study corridor. Most irrigated farmland in the study corridor is irrigated by center pivot irrigation. There are 81 center pivots in the study corridor. Some irrigated farmland is irrigated with flood or other mechanized irrigation. The majority of cultivated farmland in the study corridor is dryland.

Applicant's Proposed Action – Southern Route Alternative

Similar to the Applicant's Proposed Action Alternative, the most common crop types in the study corridor are field crops and fallow or idle farmland. Also present in the study corridor are grassland/pasture, vegetable farming operations, orchards for fruit and tree nuts, and tree farms. No CAFOs are operating in the study corridor. Most irrigated farmland in the study corridor is irrigated by center pivot irrigation. There are 78 center pivots in the study corridor. Some irrigated farmland is irrigated with flood or other mechanized irrigation. The majority of cultivated farmland in the study corridor is dryland.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The affected environment for this alternative is similar to the Applicant's Proposed Action Alternative. In comparison, there is less irrigated farmland irrigated by center pivots. There are 66 center pivots in the study corridor for this alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

Longhorn Alternative

Similar to the Applicant's Proposed Action Alternative, the most common crop types in the study corridor for the Longhorn Alternative are field crops and fallow or idle farmland. There is more grassland/pasture in the study corridor for this alternative than other alternatives in Segment 1. Also present are vegetable farming operations orchards for fruit and tree nuts, and more tree farms than any other alternative or route variation in Segment 1. Two large, concentrated CAFOs (as defined by 40 CFR 122.23) are operating in the study corridor for this alternative. One CAFO has 3,000 dairy animals permitted; one CAFO has 8,700 dairy animals permitted. There is a third CAFO that is currently under construction with an unknown number of dairy animals permitted.

Most irrigated farmland in the study corridor is irrigated by center pivot irrigation. There are 81 center pivots in the study corridor. The tree farms are irrigated by drip systems (categorized in data as 'other mechanized' irrigation). Flood irrigation also is used to irrigate some farmland in the study corridor. The majority of cultivated farmland in the study corridor is dryland.

Interstate 84 Alternative

The most common crop types present in the study corridor are field crops and fallow/idle farmland. Also present in the study corridor are grassland/pasture, vegetable farming operations, orchards of fruit and tree nuts, and tree farms.

Three CAFOs are operating in the study corridor for this alternative. These CAFOs are large concentrated operations and are permitted for 6,000 animals of unknown type; 8,000 animals of unknown type; and 12,900 dairy cattle. Most irrigated farmland in the study corridor is irrigated by center pivot irrigation or flood irrigation. There are more pivot- and flood-irrigated acres in this alternative study corridor than in any other alternative study corridor. Also present in the study corridor are 164 pivots. There is some farmland in the study corridor irrigated by other mechanized irrigation. The majority of cultivated farmland in the study corridor is dryland.

Variation S1-A1

The most common crop types in the study corridor are field crops and fallow/idle farmland. Also present in the study corridor is grassland/pasture, and vegetable operations. This variation has twice the fallow/idle farmland, three times the field crops, and more than twice the vegetable operations in the study corridor compared to Variation S1-A2. One CAFO is operating in the study corridor for this variation, which is a large concentrated operation permitted for 12,900 dairy cattle. There are more than three times the acres of dryland farmland and nearly three times the acres of center pivot-irrigated farmland compared to Variation S1-A2. There are more than twice the center pivots in the study corridor as Variation S1-A2.

Variation S1-A2

The most common crop types in the study corridor are field crops and fallow/idle farmland. Unlike Variation S1-A1, this variation has orchards of fruit and tree nuts growing in the study corridor. There is more grassland/pasture than Variation S1-A1. One CAFO is operating in the study corridor for this alternative, which is a large concentrated operation permitted for 4,150 animals of unknown type. There are more acres of flood and other mechanized irrigation in the study corridor, and less than half the number of pivots as Variation S1-A2.

Interstate 84 – Southern Route Alternative

The most common crop types in the study corridor are field crops and fallow/idle farmland. There also is grassland/pasture, vegetable operations, orchards of fruit and tree nuts, and tree farms growing. The same three CAFOs operating in the study corridor for this alternative are in the study corridor for the Interstate 84 Alternative. The most common irrigation methods are center pivot irrigation or flood irrigation. Crop types and irrigated farmland within the study corridor are similar to the Interstate 84 Alternative, with the exception that there are fewer acres of fallow/idle cropland and fewer center pivots within the study corridor.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

Segment 1 contains prime farmland if irrigated, farmland of statewide importance, and high-value soils. No prime farmland or unique farmland is present in this study corridor for the alternatives and route variations in Segment 1. Table 3-297 identifies the important farmland and high-value soils in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 1. Refer also to MV-17.

Table 3-297. Inventory Data for Important Farmland and High-Value Soils in Segment 1—Morrow-Umatilla				
Alternative Route	Total Length (miles)	Important Farmland (acres)		High-Value Soils[3] (acres)
		Prime Farmland if Irrigated[1, 2]	Farmland of Statewide Importance[1]	
Applicant's Proposed Action	91.9	17,874	22,587	18,077
Variation S1-B1	*6.4*	*0*	*22*	*0*
Variation S1-B2	*6.4*	*0*	*25*	*0*
East of Bombing Range Road	92.3	18,000	22,657	18,209
Applicant's Proposed Action – Southern Route	99.1	15,673	26,442	15,860
West of Bombing Range Road – Southern Route	95.6	12,847	21,571	12,979
Longhorn	88.2	13,907	22,213	14,072
Interstate 84	84.7	16,609	14,457	17,090
Variation S1-A1	*18.5*	*8,706*	*2,220*	*8,748*
Variation S1-A2	*18.5*	*3,185*	*5,049*	*3,237*
Interstate 84 – Southern Route	93.4	14,858	18,767	15,322

Table Notes:
These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the Natural Resource Conservation Service SSURGO/STATSGO2 soils data.
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained.
[3]Data source is the Natural Resource Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Also, lands enrolled in the USDA CRP are present in Segment 1. CRP data were not available in a format to allow an inventory for each alternative and route variation in Segment 1. Rather, data were available by county (refer to Table 3-298). Of all counties in Oregon, Umatilla County had the most acres enrolled in the CRP during the last ten years, followed by Morrow County. In 2014, the CRP acres in these two counties were greater than the CRP acres in all other Oregon counties combined (Farm Service Agency 2014).

Table 3-298. County Conservation Reserve Program Acres Enrolled 2010-2014 in Segment 1—Morrow-Umatilla					
County	2010	2011	2012	2013	2014
Morrow	118,887	119,139	116,364	116,156	114,422
Umatilla	150,377	150,413	149,475	151,020	161,490
Union	9,784	9,609	9,108	9,222	8,992

Table Note: Data is sourced from the U.S. Department of Agriculture Farm Service Agency Conservation Program index at http://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index.

Applicant's Proposed Action Alternative

Table 3-297 identifies the extent of important farmland and high-value soils present in the study corridor for the Applicant's Proposed Action Alternative. Farmlands present in the study corridor include prime farmland if irrigated, and farmland of statewide importance, in addition to high-value soils.

Variations S1-B1 and S1-B2

Prime farmland if irrigated and high-value soils are not present in the study corridor for these route variations. Variation S1-B2 has more farmland of statewide importance in the study corridor than Variation S1-B1.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The study corridor for the additional action along Bombing Range Road is similar to the study corridor for the Applicant's Proposed Action Alternative. The affected environment for the design option one additional action is a combination of those described for the Applicant's Proposed Action Alternative and the East of Bombing Range Road Alternative (described below).

Design Option 2

The study corridor and affected environment for the additional action along Bombing Range Road is similar to the study corridor for the East of Bombing Range Road Alternative (discussed below). In addition, the affected environment and study corridor extends to the east at the southern portion of Bombing Range Road where the road turns slightly to the east.

Design Option 3

The study corridor and affected environment for the additional action along Bombing Range Road is similar to the study corridor for the East of Bombing Range Road Alternative (below). In addition, the affected environment and study corridor extends to the east at the southern portion of Bombing Range Road where the road turns slightly to the east. The study corridor and affected environment also includes the area south east of the NWSTF Boardman where a new substation would be located as part of this option. This area has high-value soils and important farmland present.

East of Bombing Range Road Alternative

Similar to the Applicant's Proposed Action Alternative, important farmland and high-value soils are present in the study corridor for the East of Bombing Range Road Alternative; however, more important farmland, farmland of statewide importance, and high-value soils are present in the study corridor for this alternative than any other alternatives or route variations in Segment 1 (refer to Table 3-297**)**.

Applicant's Proposed Action – Southern Route Alternative

Similar to the Applicant's Proposed Action Alternative, important farmland, farmland of statewide importance, and high-value soils are present in the study corridor for the Applicant's Proposed Action Alternative – Southern Alternative. There are fewer acres of prime farmland if irrigated and high-value soils, but more acres of farmland of statewide importance than the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The affected environment for this alternative route is similar to the Applicant's Proposed Action Alternative. There is less prime farmland if irrigated and high-value soils in the study corridor for this alternative than the study corridor of other alternatives and route variations in Segment 1.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

Longhorn Alternative

Similar to the Applicant's Proposed Action Alternative, prime farmland if irrigated, farmland of statewide importance, and high-value soils are present in the study corridor for the Longhorn Alternative, but there are fewer acres of each present in the Longhorn Alternative study corridor.

Interstate 84 Alternative

Prime farmland if irrigated, farmland of statewide importance, and high-value soils are present in the study corridor of the Interstate 84 Alternative, but there are fewer acres of each present in the Interstate 84 Alternative study corridor than are present in the Applicant's Proposed Action Alternative.

Variation S1-A1

An additional 5,521 acres of prime farmland if irrigated and high-value soils are present in the study corridor compared to Variation S1-A2.

Variation S1-A2

An additional 2,829 acres of farmland of statewide importance are present in the study corridor compared to Variation S1-A1.

Interstate 84-Southern Route Alternative

Prime farmland if irrigated, farmland of statewide importance, and high-value soils are present in the corridor, but there are fewer acres of each present in the Interstate 84-Southern Route Alternative study corridor than are present in the Applicant's Proposed Action Alternative.

Livestock Grazing

This section examines grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 1. Grazing allotments relevant to Segment 1 include Five Points and Spring Creek (managed by the USFS) and Butter, Snipe Cr, Sparks, and Ward Butte (managed by the BLM). Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Note that while this discussion is identifying all allotments within a half mile of the alternative routes and variations, Appendix G identifies only those allotments actually crossed by the alternative routes and variations, which is why allotments may be included here, but not listed in the appendix as being affected by the B2H Project.

Table 3-299 identifies the BLM- and USFS-administered grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternative and route variations in Segment 1. Refer also to MV-18.

Table 3-299. Inventory Data for Grazing Allotments in Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office and/or National Forest	Number of Allotments Crossed[1,2]	Active Animal Unit Month[1,3]	Total Allotment Acres[1,4]	Acres in the Study Corridor[1,5]
Applicant's Proposed Action	91.9	Baker Field Office Wallowa-Whitman	1 3	24 4,843	24,902 44,678	2 2,831
Variation S1-B1	*6.4*	*Baker Field Office* *Wallowa-Whitman*	*1* *3*	*24* *4,843*	*24,902* *44,678*	*2* *2,831*
Variation S1-B2	*6.4*	*Baker Field Office* *Wallowa-Whitman*	*1* *3*	*24* *4,843*	*24,902* *44,678*	*35* *2,826*
East of Bombing Range Road	92.3	Baker Field Office Wallowa-Whitman	1 3	24 4,843	24,902 44,678	2 2,831
Applicant's Proposed Action – Southern Route	99.1	Baker Field Office Wallowa-Whitman	1 3	24 4,843	24,902 44,678	2 2,831
West of Bombing Range Road – Southern Route	95.6	Baker Field Office Wallowa-Whitman	1 3	24 4,843	24,902 44,678	2 2,831
Longhorn	88.2	Baker Field Office Wallowa-Whitman	1 3	24 4,843	24,902 44,678	2 2,831
Interstate 84	84.7	Baker Field Office Wallowa-Whitman	2 3	36 4,843	36,166 44,678	960 2,831
Variation S1-A1	*18.5*	*Not applicable*	*0*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-A2	*18.5*	*Not applicable*	*0*	*Not applicable*	*Not applicable*	*Not applicable*
Interstate 84 – Southern Route	93.4	Baker Field Office Wallowa-Whitman	2 3	36 4,843	36,166 44,678	960 2,831

Table Notes:
[1]Data source is U.S. Forest Service and the Bureau of Land Management grazing allotments datasets.
[2]Number of allotments crossed by the B2H Project 1-mile-wide study corridor.
[3]Active animal unit months of allotments crossed by the B2H Project 1-mile-wide study corridor.
[4]Total acres of allotments that are crossed by the B2H Project 1-mile-wide study corridor (including areas of allotments outside of the study corridor).
[5]Acres of allotments present in the B2H Project 1-mile-wide study corridor.

Applicant's Proposed Action Alternative

Table 3-299 identifies 4 grazing allotments in the study corridor for the Applicant's Proposed Action Alternative.

Variation S1-B1

The affected environment for grazing allotments for this route variation is the same as the Applicant's Proposed Action Alternative (refer to Table 3-299).

Variation S1-B2

The same grazing allotments are present within the study corridor for this route variation; however, fewer acres of USFS grazing allotments are present in the study corridor than the study corridor for Variation S1-B1.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The study corridor for the additional action along Bombing Range Road is similar to the study corridor for the Applicant's Proposed Action Alternative. The affected environment for the Design Option 1 additional action is a combination of those described for the Applicant's Proposed Action Alternative and the East of Bombing Range Road Alternative (described below). Refer to Figures 2-22b and 2-22c for a graphic portrayal of the Design Option 1 additional action.

Design Option 2

The study corridor and affected environment for this design option of the additional action along Bombing Range Road is similar to the study corridor for the East of Bombing Range Road Alternative (discussed below). In addition, the affected environment and study corridor extends to the east at the southern portion of Bombing Range Road where the road turns slightly to the east.

Design Option 3

The study corridor and affected environment for this design option of the additional action along Bombing Range Road is similar to the study corridor for the East of Bombing Range Road Alternative (below). In addition, the affected environment and study corridor extends to the east at the southern portion of Bombing Range Road where the road turns slightly to the east. The study corridor and affected environment also includes the area south east of the NWSTF Boardman where a new substation would be located as part of this option. This area includes dryland farmland.

East of Bombing Range Road Alternative

The affected environment for grazing allotments for this alternative is the same as the Applicant's Proposed Action Alternative (refer to Table 3-299).

Applicant's Proposed Action – Southern Route Alternative

The affected environment for grazing allotments for this alternative is the same as the Applicant's Proposed Action Alternative (refer to Table 3-299).

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The affected environment for grazing allotments for this alternative is the same as the Applicant's Proposed Action Alternative (refer to Table 3-299).

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

Longhorn Alternative

The affected environment for grazing allotments for this alternative is the same as the Applicant's Proposed Action Alternative (refer to Table 3-299).

Interstate 84 Alternative

The study corridor for the Interstate 84 Alternative contains the most acres of BLM- and USFS-administered grazing allotments in Segment 1. 5 grazing allotments are present in the study corridor for this alternative route (refer to Table 3-299).

Variations S1-A1 and S1-A2

No BLM- or USFS-administered grazing allotments are present in the study corridor for these route variations.

Interstate 84 – Southern Route Alternative

The affected environment for grazing allotments for this alternative is the same as the Interstate 84 Alternative (refer to Table 3-299).

SEGMENT 2—BLUE MOUNTAINS

Existing Agriculture

This section describes existing crops, irrigated agriculture, CAFOs, and tree farms in Segment 2. Existing agriculture present in Segment 2 includes fallow/Idle cropland, field crops, and grassland/pasture. There are no orchards of fruit and tree nuts, vegetable operations, tree farms, or CAFOS present. There are no critical groundwater areas, but water rights are still obtained by farmers for irrigation. Data are not available to indicate how much land is sprayed with pesticides, but it is anticipated that all cultivated land could be sprayed.

Table 3-300 identifies crops in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 2. Refer also to MV-16.

Table 3-300. Inventory Data for Crop Types in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Crop Type Crossed (acres)						Confined Animal Feeding Operations (count)[3]
		Fallow/Idle Cropland[1]	Field Crops[1]	Fruit and Tree Nuts[1]	Grass/ Pasture[1]	Vegetables[1]	Tree Farms[2]	
Applicant's Proposed Action	33.8	79	810	0	24	0	0	0
Variation S2-A1	*2.8*	*0*	*1*	*0*	*6*	*0*	*0*	*0*
Variation S2-A2	*2.9*	*0*	*1*	*0*	*3*	*0*	*0*	*0*
Variation S2-B1	*3.7*	*0*	*9*	*0*	*1*	*0*	*0*	*0*
Variation S2-B2	*3.8*	*0*	*34*	*0*	*2*	*0*	*0*	*0*
Variation S2-C1	*9.3*	*0*	*37*	*0*	*12*	*0*	*0*	*0*
Variation S2-C2	*8.8*	*0*	*13*	*0*	*43*	*0*	*0*	*0*
Variation S2-E1	*2.3*	*0*	*5*	*0*	*0*	*0*	*0*	*0*
Variation S2-E2	*2.6*	*0*	*49*	*0*	*0*	*0*	*0*	*0*
Variation S2-F1	*12.1*	*79*	*700*	*0*	*1*	*0*	*0*	*0*
Variation S2-F2	*12.2*	*5*	*184*	*0*	*0*	*0*	*0*	*0*
Glass Hill	33.7	79	809	0	23	0	0	0
Variation S2-D1	*4.3*	*0*	*16*	*0*	*2*	*0*	*0*	*0*
Variation S2-D2	*4.1*	*0*	*1*	*0*	*1*	*0*	*0*	*0*
Mill Creek	34.0	7	679	0	21	0	0	0

Table Notes:
These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the U.S. Department of Agriculture CropScape
[2]Data source is the Boardman Tree Farm as digitized from aerial imagery
[3]Data source is the Oregon Department of Agriculture confined animal feeding operations and self-reported dairies.

Table 3-301. Inventory Data for Irrigation Types in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Irrigation Type Crossed (acres)				
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Center Pivot Count
Applicant's Proposed Action	33.8	9	272	280	115	5
Variation S2-A1	*2.8*	*0*	*0*	*0*	*0*	*0*
Variation S2-A2	*2.9*	*0*	*0*	*0*	*0*	*0*
Variation S2-B1	*3.7*	*0*	*0*	*0*	*34*	*0*
Variation S2-B2	*3.8*	*0*	*0*	*0*	*34*	*0*
Variation S2-C1	*9.3*	*0*	*0*	*0*	*0*	*0*
Variation S2-C2	*8.8*	*0*	*0*	*0*	*0*	*0*
Variation S2-E1	*2.3*	*0*	*0*	*0*	*0*	*0*
Variation S2-E2	*2.6*	*0*	*0*	*0*	*0*	*0*
Variation S2-F1	*12.1*	*9*	*272*	*280*	*0*	*5*
Variation S2-F2	*12.2*	*22*	*43*	*98*	*0*	*1*

Table 3-301. Inventory Data for Irrigation Types in Segment 2—Blue Mountains						
Alternative Route	Total Length (miles)	Irrigation Type Crossed (acres)				
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Center Pivot Count
Glass Hill	33.7	9	272	280	115	5
Variation S2-D1	*4.3*	*0*	*0*	*0*	*0*	*0*
Variation S2-D2	*4.1*	*0*	*0*	*0*	*0*	*0*
Mill Creek	34.0	263	43	103	0	1

Table Note: Data source for this table includes cultivated farmland classified as dryland or as an irrigation type digitized from aerial imagery within the B2H Project 1-mile-wide study corridor for each alternative and variation. Center pivot count includes partial or full pivots within the 1-mile-wide study corridor for each alternative and variation.

There also is irrigated farmland in the study corridor for Segment 2, including center pivot, flood, and other mechanized irrigation types. Dryland farming (i.e., no irrigation) also occurs in Segment 2 (refer to Table 3-301).

Applicant's Proposed Action Alternative

The most common crop types in the study corridor for the Applicant's Proposed Action Alternative are field crops and fallow or idle farmland. Also present in the study corridor are grasslands/pasture. Most irrigated farmland in the study corridor is irrigated by center pivot and flood irrigation. There are 5 center pivots in the study corridor. In addition, some farmland is dryland.

Variations S2-A1, S2-A2, S2-B1, S2-B2, S2-C1, S2-C2, S2-E1, S2-E2, S2-F1, and S2-F2

All of these route variations have similar crops present in the study corridor, though Variation S2-F1 and Variation S2-F2 have more field crops present than the other route variations. Similarly, Variations S2-F1 and S2-F2 are the only route variations with irrigated farmland present in the study corridor. Variation S2-F1 has 5 pivots in the study corridor, and S2-F2 has 1 pivot within the study corridor.

Glass Hill Alternative

The Glass Hill Alternative has similar crops present in the study corridor as the Applicant's Proposed Action Alternative. Also, it has the same irrigated farmland in the study corridor as the Applicant's Proposed Action Alternative.

Variations S2-D1 and S2-D2

Variation S2-D1 has more acres of field crops present in the study corridor. The route variations do not have irrigated farmland present in the study corridor.

Mill Creek Alternative

This alternative has the same types of crops as the Applicant's Proposed Action Alternative, but has fewer acres present in the study corridor. This alternative has fewer acres of center pivot irrigation, but has more dryland farming than the Applicant's Proposed Action Alternative. This alternative has 1 pivot present in the study corridor.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

Segment 2 contains prime farmland if irrigated, farmland of statewide importance, and high-value soils. No prime farmland or unique farmland is present in this study corridor for the alternatives and route variations in Segment 2. Table 3-302 identifies the important farmland and high-value soils in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 2. Refer also to MV-17.

Table 3-302. Inventory Data for Important Farmland and High-Value Soils in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Important Farmland (acres)		High-Value Soils[3] (acres)
		Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	
Applicant's Proposed Action	33.8	1,769	10,510	1,840
Variation S2-A1	*2.8*	*0*	*430*	*0*
Variation S2-A2	*2.9*	*0*	*239*	*0*
Variation S2-B1	*3.7*	*0*	*1,523*	*68*
Variation S2-B2	*3.8*	*0*	*1,531*	*77*
Variation S2-C1	*9.3*	*0*	*5,489*	*0*
Variation S2-C2	*8.8*	*0*	*4,902*	*0*
Variation S2-E1	*2.3*	*0*	*894*	*0*
Variation S2-E2	*2.6*	*32*	*982*	*32*
Variation S2-F1	*12.1*	*1,731*	*2,436*	*1,731*
Variation S2-F2	*12.2*	*876*	*2,031*	*876*
Glass Hill	33.7	1,769	10,857	1,852
Variation S2-D1	*4.3*	*0*	*2,708*	*0*
Variation S2-D2	*4.1*	*0*	*2,693*	*0*
Mill Creek	34.0	928	9,311	1,027

Table Notes:

These are for resource inventory within the B2H Project 1-mile-wide study corridor.

[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data.

[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained.

[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Also, lands enrolled in the USDA CRP are present in Segment 2. CRP data were not available in a format to allow an inventory for each alternative and route variation in Segment 2. Rather, data were available by county (refer to Table 3-303). In 2014, there were several thousand acres of CRP lands in counties crossed by alternative routes and segments in Segment 2, but no CRP lands are crossed by alternatives in Segment 2.

Table 3-303. County Conservation Reserve Program Acres Enrolled 2010-2014 in Segment 2—Blue Mountains					
County	**2010**	**2011**	**2012**	**2013**	**2014**
Union	9,784	9,609	9,108	9,222	8,992
Baker	5,223	5,280	5,378	5,385	5,327
Table Note: Data is sourced from the U.S. Department of Agriculture Farm Service Agency Conservation Program index at http://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index.					

Applicant's Proposed Action Alternative

Farmlands present in the study corridor include prime farmland if irrigated, and farmland of statewide importance, in addition to high-value soils. This alternative route has the most prime farmland if irrigated in the study corridor of any alternative route in Segment 2.

Variations S2-A1 and S2-A2

Variation S2-A1 has more farmland of statewide importance present in the study corridor than Variation S2-A2. Neither variation has prime farmland if irrigated or high-value soils present in the study corridor.

Variations S2-B1 and S2-B2

Variation S2-B2 has more farmland of statewide importance and high-value soils present in the study corridor than Variation S2-B1. Neither variation has prime farmland if irrigated present in the study corridor.

Variations S2-C1 and S2-C2

Variation S2-C1 has more farmland of statewide importance present in the study corridor than Variation S2-C2. Neither variation has prime farmland if irrigated or high-value soils present in the study corridor.

Variations S2-E1 and S2-E2

Variation S2-E2 has more farmland of statewide importance, prime farmland if irrigated, and high-value soils present in the study corridor than Variation S2-E2.

Variations S2-F1 and S2-F2

Variation S2-F1 has more farmland of statewide importance, prime farmland if irrigated, and high-value soils present in the study corridor than Variation S2-F2.

Glass Hill Alternative

This alternative route is similar to the Applicant's Proposed Action Alternative.

Variations S2-D1 and S2-D2

Variation S2-D1 has more farmland of statewide importance present in the study corridor. Neither variation has prime farmland if irrigated or high-value soils present in the study corridor.

Mill Creek Alternative

This alternative has farmland of statewide importance, prime farmland if irrigated, and high-value soils present in the corridor. It crosses the least important farmland and high-value soils of all alternatives in Segment 2.

Livestock Grazing

This section examines grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 2. Grazing allotments relevant to Segment 2 include Five Points and Spring Creek, (managed by the USFS) Ladd Canyon, Riverdale Hill, Rock Creek Road, Seven Diamond No. 3, and Tamarack Mountain (managed by the BLM). Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Note that while this discussion is identifying all allotments within a half mile of the alternative routes and variations, Appendix G identifies only those allotments actually crossed by the alternative routes and variations, which is why allotments may be included here, but not listed in the appendix as being affected by the B2H Project.

Table 3-304 identifies the BLM- and USFS-administered grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternative and route variations in Segment 2. Refer also to MV-18.

Table 3-304. Inventory Data for Grazing Allotments in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office and/or National Forest	Number of Allotments Crossed[1,3]	Active Animal Unit Month[1,3]	Total Allotment Acres[1,4]	Acres in the Study Corridor[1,5]
Applicant's Proposed Action	33.8	Baker Field Office	5	121	46,510	6,142
		Wallowa-Whitman	2	4,843	43,317	1,519
Variation S2-A1	*2.8*	*Wallowa-Whitman*	*2*	*4,843*	*43,317*	*1,488*
Variation S2-A2	*2.9*	*Wallowa-Whitman*	*2*	*4,843*	*43,317*	*1,730*
Variation S2-B1	*3.7*	*Baker Field Office*	*1*	*22*	*2,401*	*394*
Variation S2-B2	*3.8*	*Baker Field Office*	*1*	*22*	*2,401*	*131*
Variation S2-C1	*9.3*	*Baker Field Office*	*1*	*34*	*11,097*	*1,042*
Variation S2-C2	*8.8*	*Baker Field Office*	*1*	*34*	*11,097*	*1,246*
Variation S2-E1	*2.3*	*Baker Field Office*	*2*	*46*	*15,654*	*1,091*
Variation S2-E2	*2.6*	*Baker Field Office*	*2*	*46*	*15,654*	*1,170*
Variation S2-F1	*12.1*	*Baker Field Office*	*4*	*99*	*44,109*	*3,094*
Variation S2-F2	*12.2*	*Baker Field Office*	*4*	*99*	*44,109*	*4,137*

Table 3-304. Inventory Data for Grazing Allotments in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office and/or National Forest	Number of Allotments Crossed[1,3]	Active Animal Unit Month[1,3]	Total Allotment Acres[1,4]	Acres in the Study Corridor[1,5]
Glass Hill	33.7	Baker Field Office	5	121	46,510	6,647
		Wallowa-Whitman	2	4,843	43,317	1,519
Variation S2-D1	*4.3*	*Not applicable*	*0*	*0*	*0*	*0*
Variation S2-D2	*4.1*	*Not applicable*	*0*	*0*	*0*	*0*
Mill Creek	34.0	Baker Field Office	5	121	46,510	4,988
		Wallowa-Whitman	2	4843	43,317	1,730

Table Notes:
[1]Data source is the U.S. Forest Service and the Bureau of Land Management grazing allotments datasets.
[2]Number of allotments crossed by the B2H Project 1-mile-wide study corridor.
[3]Active animal unit months of allotments crossed by the B2H Project 1-mile-wide study corridor.
[4]Total acres of allotments that are crossed by the B2H Project 1-mile-wide study corridor (including areas of allotments outside of the study corridor).
[5]Acres of allotments present in the B2H Project 1-mile-wide study corridor.

Applicant's Proposed Action Alternative

There are 7 allotments present in the study corridor for the Applicant's Proposed Action in the Baker Field Office and Wallowa-Whitman National Forest.

Variation S2-A1 and S2-A2

These variations have 2 Wallowa-Whitman allotments present in the study corridor.

Variations S2-B1, S2-B2, S2-C1, S2-C2, S2-E1, S2-E2, S2-F1, and S2-F2

These variations have 1 to 4 Baker Field Office allotments present in the study corridor. Variation S2-B2 has the fewest acres of grazing allotments present in the study corridor and Variation S2-F2 has the most acres of grazing allotments present in the study corridor.

Glass Hill Alternative

This alternative route has the same 7 allotments in the 1-mile-wide study corridor as the Applicant's Proposed Action Alternative. Approximately 500 more acres of the Baker Field Office allotments are present within the study corridor.

Variations S2-D1 and S2-D2

The study corridors for these route variations do not have grazing allotments in them.

Mill Creek Alternative

This alternative route has the same 7 allotments in the 1-mile-wide study corridor as the Applicant's Proposed Action Alternative. There are approximately 200 more acres of the Wallowa-Whitman allotments present in the corridor, but approximately 1,100 fewer acres of the Baker Field Office allotments within the study corridor.

SEGMENT 3—BAKER VALLEY

Existing Agriculture

This section describes existing crops, irrigated agriculture, CAFOs, and tree farms present in the study corridor for the Applicant's Proposed Action Alternative and all other alternatives and route variations in Segment 3. Existing agriculture present in Segment 3 includes fallow/idle cropland, field crops, vegetable operations, and grassland/pasture. The climate and soils in the area make it excellent farm ground. There are no orchards of fruit and tree nuts, tree farms, or CAFOS present. There are no critical groundwater areas, but water rights are still obtained by farmers for irrigation. Data are not available to indicate how much land is sprayed with pesticides, but it is anticipated that all cultivated land could be sprayed.

Table 3-305 identifies crops in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 3. Table 3-306 identifies irrigated farmland in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 3. Refer also to MV-16.

Table 3-305. Inventory Data for Crop Types in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Crop Type Crossed (acres)						Confined Animal Feeding Operations (count)[3]
		Fallow/Idle Cropland[1]	Field Crops[1]	Fruit and Tree Nuts[1]	Grass/ Pasture[1]	Vegetables[1]	Tree Farms[2]	
Applicant's Proposed Action	55.2	12	700	0	1,193	6	0	0
Variation S3-A1	*12.4*	*9*	*407*	*0*	*37*	*6*	*0*	*0*
Variation S3-A2	*12.2*	*2*	*239*	*0*	*21*	*2*	*0*	*0*
Variation S3-B1	*13.9*	*0*	*117*	*0*	*90*	*0*	*0*	*0*
Variation S3-B2	*14.4*	*43*	*686*	*0*	*280*	*38*	*0*	*0*
Variation S3-B3	*14.7*	*43*	*709*	*0*	*290*	*38*	*0*	*0*
Variation S3-B4	*14.3*	*48*	*1,084*	*0*	*331*	*43*	*0*	*0*
Variation S3-B5	*14.0*	*50*	*999*	*0*	*325*	*42*	*0*	*0*
Variation S3-C1	*21.1*	*2*	*287*	*0*	*1,024*	*0*	*0*	*0*
Variation S3-C2	*21.7*	*3*	*481*	*0*	*1,180*	*0*	*0*	*0*
Variation S3-C3	*21.1*	*4*	*294*	*0*	*534*	*0*	*0*	*0*
Variation S3-C4	*21.4*	*3*	*194*	*0*	*479*	*0*	*0*	*0*
Variation S3-C5	*21.0*	*2*	*82*	*0*	*456*	*0*	*0*	*0*
Variation S3-C6	*24.7*	*3*	*94*	*0*	*277*	*0*	*0*	*0*
Flagstaff A	55.3	61	1,580	0	1,426	47	0	0
Timber Canyon	70.3	12	1,613	0	603	0	0	0
Flagstaff A – Burnt River Mountain	55.3	63	1,587	0	936	47	0	0
Flagstaff B	56.0	54	1,291	0	1,392	43	0	0

Table 3-305. Inventory Data for Crop Types in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Crop Type Crossed (acres)						Confined Animal Feeding Operations (count)[3]
		Fallow/Idle Cropland[1]	Field Crops[1]	Fruit and Tree Nuts[1]	Grass/ Pasture[1]	Vegetables[1]	Tree Farms[2]	
Flagstaff B – Burnt River West	55.7	47	918	0	808	39	0	0
Flagstaff B – Durkee	59.6	55	1,098	0	645	43	0	0

Table Notes: These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the U.S. Department of Agriculture CropScape
[2]Data source is the Boardman Tree Farm as digitized from aerial imagery
[3]Data source is the Oregon Department of Agriculture confined animal feeding operations and self-reported dairies.

Table 3-306. Inventory Data for Irrigation Types in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Irrigation Type Crossed (acres)				
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Center Pivot Count
Applicant's Proposed Action	55.2	0	381	278	232	5
Variation S3-A1	*12.4*	*0*	*381*	*0*	*12*	*5*
Variation S3-A2	*12.2*	*0*	*216*	*0*	*0*	*4*
Variation S3-B1	*13.9*	*0*	*117*	*0*	*0*	*1*
Variation S3-B2	*14.4*	*0*	*282*	*93*	*569*	*4*
Variation S3-B3	*14.7*	*0*	*305*	*95*	*588*	*5*
Variation S3-B4	*14.3*	*0*	*441*	*148*	*838*	*7*
Variation S3-B5	*14.0*	*0*	*371*	*152*	*797*	*5*
Variation S3-C1	*21.1*	*0*	*0*	*278*	*220*	*0*
Variation S3-C2	*21.7*	*0*	*0*	*401*	*319*	*0*
Variation S3-C3	*21.1*	*0*	*0*	*382*	*46*	*0*
Variation S3-C4	*21.4*	*0*	*0*	*273*	*46*	*0*
Variation S3-C5	*21.0*	*0*	*0*	*165*	*0*	*0*
Variation S3-C6	*24.7*	*0*	*0*	*175*	*0*	*0*
Flagstaff A	55.3	0	636	430	1029	9
Timber Canyon	70.3	0	53	1411	257	1
Flagstaff A – Burnt River Mountain	55.3	0	636	534	855	9
Flagstaff B	56.0	0	569	373	820	9

Table 3-306. Inventory Data for Irrigation Types in Segment 3—Baker Valley						
Alternative Route	Total Length (miles)	Irrigation Type Crossed (acres)				
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Center Pivot Count
Flagstaff B – Burnt River West	55.7	0	404	260	588	8
Flagstaff B – Durkee	59.6	0	569	270	600	9
Table Note: Data source for this table includes cultivated farmland classified as dryland or as an irrigation type digitized from aerial imagery within the B2H Project 1-mile-wide study corridor for each alternative and variation. Center pivot count includes partial or full pivots within the 1-mile-wide study corridor for each alternative and variation.						

Applicant's Proposed Action Alternative

The most common crop types present in the study corridor for the Applicant's Proposed Action Alternative are field crops and grasslands/pasture. There also are vegetable farming operations and fallow/idle cropland. There are no orchards of fruit and tree nuts or tree farms. No CAFOs are operating in the study corridor. Most irrigated farmland in the study corridor is irrigated by center pivot irrigation. There are 5 center pivots in the study corridor. Some irrigated farmland is irrigated with flood or other mechanized irrigation. There is no dryland farmland in the study corridor.

Variations S3-A1 and S3-A2

Both of these route variations have fallow/idle cropland, field crops, grasslands/pasture, and vegetable farming operations in the 1-mile-wide study corridor. Variation S3-A1 has more acres of these crops than Variation S3-A2 present in the study corridor. Variation S3-A1 has pivot irrigation and other mechanized irrigation, while Variation S3-A2 has fewer acres of pivot irrigation and no other mechanized irrigation present in the study corridor.

Variations S3-B1 through S3-B5

These variations have fallow/idle cropland, field crops, grasslands/pasture, and vegetable farming operations in the study corridor. Variation S3-B1 has the fewest acres of these crops present in the study corridor and Variation S3-B4 has the most acres of these crops present in the study corridor. Most irrigated farmland in the study corridor is irrigated by other mechanized irrigation. There is some pivot and flood irrigation present in the study corridor. Variation S3-B1 has the fewest acres of irrigated farmland present in the study corridor and Variation S3-B4 has the most acres of irrigated farmland present in the study corridor.

Variations S3-C1 through S3-C6

All of these route variations have fallow/idle cropland, field crops, and grasslands/pasture present in the study corridor. Variation S3-C2 has the most acres of these crops present in the study corridor, and Variation S3-C6 has the least acres of these crops present in the study corridor. These route variations have flood and other mechanized irrigation present in the study corridor. Variation S3-C2 has the most irrigated farmland present in the study corridor, and Variation S3-C5 has the least acres of irrigated farmland present in the study corridor.

Flagstaff A Alternative

Compared to the Applicant's Proposed Action Alternative, the Flagstaff A Alternative has more acres of the same types of crops present in the study corridor. This alternative route also has more than twice the irrigated farmland as the Applicant's Proposed Action Alternative, and has nine pivots in the study corridor.

Timber Canyon Alternative

This Timber Canyon Alternative has approximately twice the field crops and half the grasslands/pasture present in the study corridor as the Applicant's Proposed Action Alternative. It has more than twice the irrigated agriculture as the Applicant's Proposed Action Alternative present in the study corridor.

Flagstaff A – Burnt River Mountain Alternative

The Flagstaff A – Burnt River Mountain Alternative has more acres of field crops, vegetable farming operations, and fallow/idle cropland, but fewer acres of grassland pasture than the Applicant's Proposed Action Alternative. It has more than twice the acres of irrigated farmland within the study corridor as the Applicant's Proposed Action Alternative.

Flagstaff B Alternative

The Flagstaff B Alternative has more acres of field crops, vegetable farming operations, grasslands/pasture and fallow/idle cropland than the Applicant's Proposed Action Alternative. It has more than twice the acres of irrigated farmland within the study corridor as the Applicant's Proposed Action Alternative. This alternative has the most other mechanized irrigation within the study corridor of any alternative in Segment 3.

Flagstaff B – Burnt River West Alternative

The Flagstaff B – Burnt River West Alternative has more acres present in the study corridor of field crops, vegetable farming operations, and fallow/idle cropland, but fewer acres of grassland pasture than the Applicant's Proposed Action Alternative. It has 361 more acres of irrigated farmland within the study corridor than the Applicant's Proposed Action Alternative.

Flagstaff B – Durkee

The Flagstaff B – Durkee Alternative has more acres present in the study corridor of field crops, vegetable farming operations, and fallow/idle cropland, but fewer acres of grassland pasture than the Applicant's Proposed Action Alternative. It has 548 more acres of irrigated farmland within the study corridor as the Applicant's Proposed Action Alternative.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

This section examines important farmland, high-value soils, and CRP lands in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 3. Segment 3 contains prime farmland if irrigated, farmland of statewide importance, and high-value soils. No prime farmland or unique farmland is present in this study corridor for the alternatives and route variations in Segment 3. Table 3-307 identifies the important farmland and high-value soils in the study

corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 3. Table 3-308 identifies the CRP lands present in each county in Segment 3. Refer also to MV-17.

Table 3-307. Inventory Data for Important Farmland and High-Value Soils in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Important Farmland (acres)		High-Value Soils[3] (acres)
		Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	
Applicant's Proposed Action	55.2	2,682	22,039	2,682
Variation S3-A1	*12.4*	*305*	*3,981*	*305*
Variation S3-A2	*12.2*	*111*	*3,923*	*111*
Variation S3-B1	*13.9*	*1,217*	*5,652*	*1,217*
Variation S3-B2	*14.4*	*1,200*	*5,681*	*1,200*
Variation S3-B3	*14.7*	*1,278*	*5,824*	*1,278*
Variation S3-B4	*14.3*	*1,705*	*5,273*	*1,705*
Variation S3-B5	*14.0*	*1,499*	*5,235*	*1,499*
Variation S3-C1	*21.1*	*1,160*	*9,422*	*1,160*
Variation S3-C2	*21.7*	*1,446*	*9,383*	*1,446*
Variation S3-C3	*21.1*	*1,092*	*7,551*	*1,092*
Variation S3-C4	*21.4*	*984*	*7,745*	*984*
Variation S3-C5	*21.0*	*411*	*7,375*	*411*
Variation S3-C6	*24.7*	*566*	*10,902*	*566*
Flagstaff A	55.3	2,964	21,617	2,964
Timber Canyon	70.3	1,603	19,121	1,913
Flagstaff A – Burnt River Mountain	55.3	2,896	19,746	2,896
Flagstaff B	55.9	2,743	22,207	2,743
Flagstaff B – Burnt River West	55.7	1,799	20,103	1,799
Flagstaff B – Durkee	59.6	2,149	23,686	2,149

Table Notes*:* These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data.
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained.
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Also, lands enrolled in the USDA CRP are present in Segment 3. CRP data were not available in a format to allow an inventory for each alternative and route variation in Segment 3. Rather, data were available by county (refer to Table 3-308). In 2014, there were several thousand acres of CRP lands in counties crossed by alternative routes and variations in Segment 3.

Table 3-308. County Conservation Reserve Program Acres Enrolled 2010-2014 in Segment 3—Baker Valley					
County	**2010**	**2011**	**2012**	**2013**	**2014**
Union	9,784	9,609	9,108	9,222	8,992
Baker	5,223	5,280	5,378	5,385	5,327
Table Note: Data is sourced from the U.S. Department of Agriculture Farm Service Agency Conservation Program index at http://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index.					

Applicant's Proposed Action Alternative

Farmlands present in the study corridor include prime farmland if irrigated, and farmland of statewide importance, in addition to high-value soils.

Variations S3-A1 and S3-A2

Variation S3-A1 has more prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor than Variation S3-A2.

Variations S3-B1 through S3-B5

All of the route variations have prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor. Variation S3-B4 has the most prime farmland if irrigated and high-value soils; Variation S3-B3 has the most farmland of statewide importance present in the study corridor.

Variations S3-C1 through Variation S3-C6

Variation S3-C2 has the most prime farmland if irrigated and high-value soils present in the study corridor; Variation S3-C6 has the most farmland of statewide importance present in the study corridor.

Flagstaff A Alternative

The Flagstaff A Alternative has more prime farmland if irrigated and high-value soils than the Applicant's Proposed Action Alternative, but fewer acres of farmland of statewide importance are present in the study corridor.

Timber Canyon Alternative

This alternative has fewer acres of prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor than the Applicant's Proposed Action.

Flagstaff A – Burnt River Mountain Alternative

The Flagstaff A Burnt River Mountain Alternative has more prime farmland if irrigated and high-value soils than the Applicant's Proposed Action Alternative, but fewer acres of farmland of statewide importance are present in the study corridor.

Flagstaff B Alternative

This alternative has more prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor than the Applicant's Proposed Action Alternative.

Flagstaff B – Burnt River West Alternative

This alternative has less prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor than the Applicant's Proposed Action Alternative.

Flagstaff B – Durkee

This alternative has less prime farmland if irrigated and high-value soils, but more farmland of statewide importance than the Applicant's Proposed Action Alternative.

Livestock Grazing

This section examines grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 3. Grazing allotments relevant to Segment 3 include Balm Creek, Big Creek, Frazier Mountain, Goose Creek, Hootin Rock, and Trouble Gulch (managed by the USFS); Alder Creek, Baldy Mountain, Barnard Creek, Cave Creek, Clough Gulch, Crews Creek, Deer Gulch, Dixie Creek, Dogtown Creek, Dry Creek, Dry Gulch, Durkee, East Pleasant Valley, Encina, Farley Hills, Fisk Reservoir, Flagstaff, French Creek, Fur Mountain, Gold Creek, Hollowfield Canyon, Horseshoe, Iron Mountain, Jordan Creek, Keating Highway, Lone Pine Mountain, Lookout Mountain, Lost Basin, Lower Manning Creek, Magpie Peak, North Dixie Creek, North Flagstaff, North Swayze Creek, Oregon Trail, Pearce Gulch, Pedro Mountain, Pipeline, Pleasant Valley, Powell Creek, Pritchard Creek, Quartz Creek, Ranch Creek, Rattlesnake Gulch, Rattlesnake Hill, Riverdale Hill, Ruckles Creek, Rye Valley, Sheep Mountain, Shirttail Creek, Sisley Creek, South Flagstaff, Squaw Creek, Storie Gulch, Summit Pasture, Summit Spring, Sunnyslope, Thief Valley, Timber Canyon, Titus, True Blue Gulch, Tunnel, Turner Gulch, Unallotted (multiple), Unity Creek, Upper Crews Creek, Upper Dry Gulch, Upper Shirttail Creek, Vandecar, Virtue Hills, Weatherby Mountain, Weatherby Station, West Crews, West Magpie Peak, and Woods Gulch (managed by the BLM). Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Note that while this discussion is identifying all allotments within a half mile of the alternative routes and variations, Appendix G identifies only those allotments actually crossed by the alternative routes and variations, which is why allotments may be included here, but not listed in the appendix as being affected by the B2H Project.

Table 3-309 identifies the acres and AUMs of BLM- and USFS-administered grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternative and route variations in Segment 3. Refer also to MV-18.

Table 3-309. Inventory Data for Grazing Allotments in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office and/or National Forest	Number of Allotments Crossed[1,2]	Active Animal Unit Month[1,3]	Total Allotment Acres[1,4]	Acres in the Study Corridor[1,5]
Applicant's Proposed Action	55.2	Baker Field Office	44	12,707	132,496	22,065
Variation S3-A1	*12.4*	*Baker Field Office*	*5*	*647*	*18,228*	*2,817*
Variation S3-A2	*12.2*	*Baker Field Office*	*5*	*533*	*19,540*	*3,202*

Table 3-309. Inventory Data for Grazing Allotments in Segment 3—Baker Valley						
Alternative Route	**Total Length (miles)**	**Bureau of Land Management Field Office and/or National Forest**	**Number of Allotments Crossed[1,2]**	**Active Animal Unit Month[1,3]**	**Total Allotment Acres[1,4]**	**Acres in the Study Corridor[1,5]**
Variation S3-B1	*13.9*	*Baker Field Office*	*14*	*3,180*	*37,901*	*7,581*
Variation S3-B2	*14.4*	*Baker Field Office*	*9*	*710*	*16,300*	*5,086*
Variation S3-B3	*14.7*	*Baker Field Office*	*9*	*710*	*16,300*	*4,953*
Variation S3-B4	*14.3*	*Baker Field Office*	*9*	*710*	*16,300*	*4,200*
Variation S3-B5	*14.0*	*Baker Field Office*	*9*	*710*	*16,300*	*4,419*
Variation S3-C1	*21.1*	*Baker Field Office*	*20*	*4,192*	*73,957*	*9,325*
Variation S3-C2	*21.7*	*Baker Field Office*	*21*	*5,223*	*84,186*	*9,017*
Variation S3-C3	*21.1*	*Baker Field Office*	*19*	*5,438*	*63,154*	*8,405*
Variation S3-C4	*21.4*	*Baker Field Office*	*19*	*5,438*	*63,154*	*8,796*
Variation S3-C5	*21.0*	*Baker Field Office*	*19*	*5,475*	*60,604*	*11,718*
Variation S3-C6	*24.7*	*Baker Field Office*	*21*	*7,035*	*79,663*	*13,194*
Flagstaff A	55.3	Baker Field Office	40	10,867	118,927	18,902
Timber Canyon	70.3	Baker Field Office Wallowa-Whitman	22 6	2,544 6,562	87,785 86,062	19,278 13,132
Flagstaff A – Burnt River Mountain	55.3	Baker Field Office	39	11,933	108,124	17,983
Flagstaff B	56.0	Baker Field Office	40	10,687	118,927	19,436
Flagstaff B – Burnt River West	55.7	Baker Field Office	39	11,856	106,885	22,215
Flagstaff B – Durkee	59.6	Baker Field Office	41	13,530	124,633	23,306

Table Notes:
[1]Data source is the U.S. Forest Service and the Bureau of Land Management grazing allotments datasets.
[2]Number of allotments crossed by the B2H Project 1-mile-wide study corridor.
[3]Active animal unit months of allotments crossed by the B2H Project 1-mile-wide study corridor.
[4]Total acres of allotments that are crossed by the B2H Project 1-mile-wide study corridor (including areas of allotments outside of the study corridor).
[5]Acres of allotments present in the B2H Project 1-mile-wide study corridor.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative has the most acres of allotments and AUMs within the study corridor, second to Flagstaff B – Durkee. This alternative route has the most allotments present in the study corridor.

Variations S3-A1 and S3-A2

Variation S3-A2 has 385 more allotment acres present in the study corridor than S3-A1. They both have the same number of allotments (though not the exact same allotments) present in the 1-mile-wide study corridor.

Variations S3-B1 through S3-B5

Variation S3-B1 has more allotments in the 1-mile-wide study corridor than any other variation. Variation S3-B4 has the fewest allotment acres present in the study corridor, and Variation S3-B1 has

the most allotment acres present in the study corridor (approximately 2,500 more acres than any other route variation).

Variations S3-C1 through S3-C6

Variations S3-C2 and S3-C6 have the most allotments present in their study corridor. Variation S3-C6 has the most allotment acres present in the study corridor. Variation S3-C3 has the fewest allotment acres present in the study corridor.

Flagstaff A Alternative

Compared to the Applicant's Proposed Action Alternative, the Flagstaff A Alternative has 4 fewer allotments in the study corridor and 3,163 fewer allotment acres.

Timber Canyon Alternative

Compared to the Applicant's Proposed Action Alternative, the Timber Canyon Alternative has 16 fewer allotments in the study corridor, but has 10,345 more allotment acres present in the study corridor.

Flagstaff A – Burnt River Mountain Alternative

Compared to the Applicant's Proposed Action Alternative, the Flagstaff A – Burnt River Mountain Alternative has 5 fewer allotments in the study corridor and 4,082 fewer allotment acres.

Flagstaff B Alternative

Compared to the Applicant's Proposed Action Alternative, the Flagstaff B Alternative has 4 fewer allotments in the study corridor and 2,629 fewer allotment acres.

Flagstaff B – Burnt River West Alternative

Compared to the Applicant's Proposed Action Alternative, the Flagstaff B – Burnt River West Alternative has 5 fewer allotments in the study corridor, but similar allotment acres within the study corridor.

Flagstaff B – Durkee

Compared to the Applicant's Proposed Action Alternative, the Flagstaff B- Durkee Alternative has 3 fewer allotments in the study corridor, but has 1,241 more allotment acres present in the study corridor.

SEGMENT 4—BROGAN

Existing Agriculture

This section describes existing crops, irrigated agriculture, CAFOs, and tree farms present in the study corridor for the Applicant's Proposed Action Alternative and all other alternatives and route variations in Segment 3. Existing agriculture present in Segment 3 includes fallow/idle cropland, field crops, vegetable operations, and grassland/pasture. There are no orchards of fruit and tree nuts, tree farms, or CAFOS present. There are no critical groundwater areas, but water rights are still obtained by farmers for irrigation. Data are not available to indicate how much land is sprayed with pesticides, but it is anticipated that all cultivated land could be sprayed.

Table 3-310 identifies crops in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 4. Table 3-311 identifies irrigated farmland in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 4. Refer also to MV-16.

Table 3-310. Inventory Data for Crop Types in Segment 4—Brogan

Alternative Route	Total Length (miles)	Crop Type Crossed (acres)						Confined Animal Feeding Operations (count)[3]
		Fallow/Idle Cropland[1]	Field Crops[1]	Fruit and Tree Nuts[1]	Grass/ Pasture[1]	Vegetables[1]	Tree Farms[2]	
Applicant's Proposed Action	40.1	25	28	0	2,941	6	0	0
Variation S4-A1	*5.9*	*3*	*19*	*0*	*702*	*0*	*0*	*0*
Variation S4-A2	*6.0*	*4*	*22*	*0*	*707*	*0*	*0*	*0*
Variation S4-A3	*6.1*	*2*	*20*	*0*	*719*	*0*	*0*	*0*
Tub Mountain South	40.5	292	1,493	0	12,973	94	0	0
Willow Creek	34.6	48	1,215	0	6,626	87	0	0

Table Notes:
These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the U.S. Department of Agriculture CropScape
[2]Data source is the Boardman Tree Farm as digitized from aerial imagery
[3]Data source is the Oregon Department of Agriculture confined animal feeding operations and self-reported dairies.

Table 3-311. Inventory Data for Irrigation Types in Segment 4—Brogan

Alternative Route	Total Length (miles)	Irrigation Type Crossed (acres)				
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Center Pivot Count
Applicant's Proposed Action	40.1	0	0	29	12	0
Variation S4-A1	*5.9*	*0*	*0*	*29*	*0*	*0*
Variation S4-A2	*6.0*	*0*	*0*	*33*	*0*	*0*
Variation S4-A3	*6.1*	*0*	*0*	*20*	*0*	*0*
Tub Mountain South	40.5	24	727	832	83	13
Willow Creek	34.6	12	820	165	158	15

Table Note: Data source for this table includes cultivated farmland classified as dryland or as an irrigation type digitized from aerial imagery within the B2H Project 1-mile-wide study corridor for each alternative and variation. Center pivot count includes partial or full pivots within the 1-mile-wide study corridor for each alternative and variation.

Applicant's Proposed Action Alternative

The most common crop types present in the study corridor for the Applicant's Proposed Action Alternative are field crops and grasslands/pasture. There also are vegetable farming operations and fallow/idle cropland. There are no orchards of fruit and tree nuts or tree farms. No CAFOs are operating in the study corridor. Most irrigated farmland in the study corridor is irrigated by flood irrigation. Some irrigated farmland is irrigated with other mechanized irrigation. There is no dryland or center pivot-

irrigated farmland in the study corridor. This alternative route has the least crops and irrigated farmland present in the study corridor of all alternative routes in Segment 4.

Variations S4-A1 through S4-A3

These route variations all have fallow/idle cropland, field crops, and grasslands/pasture present in the study corridor. Variation S4-A2 has the most fallow/idle cropland and field crops present in the study corridor; Variation S4-A3 has the most grasslands/pasture present in the study corridor. These variations have only flood irrigation present in the study corridor, and Variation S4-A2 has the most flood irrigation present in the study corridor.

Tub Mountain South Alternative

The Tub Mountain South Alternative has more fallow/idle cropland, field crops, grasslands/pasture, and vegetable operations present in the study corridor than any alternative in Segment 4, including the Applicant's Proposed Action Alternative. This alternative route has the most flood-irrigated and dryland farmland present in the study corridor.

Willow Creek Alternative

The Willow Creek Alternative has more fallow/idle cropland, field crops, grasslands/pasture, and vegetable operations present in the study corridor than the Applicant's Proposed Action alternative. This alternative route has the most pivot-irrigated farmland of all alternatives in Segment 4 (15 pivots) and other mechanized irrigation present in the study corridor.

Comments on the Draft EIS indicated that the Willow Creek Alternative crossed the existing Gum Creek Airstrip used to spray farmland throughout the area. In addition, comments on the Draft EIS indicated that an artesian well is present in the Willow Creek Alternative and that this is the most productive agricultural land in the area.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

This section examines important farmland, high-value soils, and CRP lands in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 4. Segment 4 contains prime farmland if irrigated, farmland of statewide importance, and high-value soils. No prime farmland or unique farmland is present in this study corridor for the alternatives and route variations in Segment 4. Table 3-312 identifies the important farmland and high-value soils in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 4. Refer also to MV-17.

Table 3-312. Inventory Data for Important Farmland and High-Value Soils in Segment 4—Brogan				
Alternative Route	Total Length (miles)	Important Farmland (acres)		High-Value Soils[3] (acres)
		Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	
Applicant's Proposed Action	40.1	181	4,958	181
Variation S4-A1	*5.9*	*181*	*3,146*	*181*
Variation S4-A2	*6.0*	*284*	*2,943*	*284*
Variation S4-A3	*6.1*	*181*	*2,973*	*181*
Tub Mountain South	40.5	1,398	6,152	1,720
Willow Creek	34.6	783	4,502	825

Table Notes*:* These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data.
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained.
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Also, lands enrolled in the USDA CRP are present in Segment 4. CRP data were not available in a format to allow an inventory for each alternative and route variation in Segment 4. Rather, data were available by county (refer to Table 3-313). In 2014, there were several thousand acres of CRP lands in counties crossed by alternative routes and segments in Segment 4. However, no CRP lands are crossed by the Applicant's Proposed Action or any of the alternative routes or variations in Segment 4.

Table 3-313. County Conservation Reserve Program Acres Enrolled 2010-2014 in Segment 4—Brogan					
County	2010	2011	2012	2013	2014
Baker	5,223	5,280	5,378	5,385	5,327
Malheur	341	358	358	358	318

Table Note: Data is sourced from the U.S. Department of Agriculture Farm Service Agency Conservation Program index at http://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index.

Applicant's Proposed Action Alternative

Farmlands present in the study corridor include prime farmland if irrigated, and farmland of statewide importance, in addition to high-value soils. The Applicant's Proposed Action Alternative has the least prime farmland if irrigated and high-value soils present in the study corridor.

Variations S4-A1 through S4-A3

Variation S4-A1 has the most farmland of statewide importance present in the study corridor, but Variation S4-A2 has the most prime farmland if irrigated and high-value soils present in the study corridor.

Tub Mountain South Alternative

This alternative has the most prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor of all alternatives in Segment 4.

Willow Creek Alternative

The Willow Creek Alternative has the least farmland of statewide importance present in the study corridor. It has more prime farmland if irrigated and high-value soils present in the study corridor than the Applicant's Proposed Action Alternative.

Livestock Grazing

This section examines grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 4. Grazing allotments relevant to Segment 4 include Alkali Spring, Becker Creek, Benson Creek, Boswell Spring, Brogan Canyon, Bully Creek, Bully Reservoir, Canyon Creek, Cavanaugh Creek, Cottonwood Mountain, Cow Valley, East Table Mountain, Farewell Bend, Freeway, Huntington, Jamieson, Lime Plant, Little Valley, Phipps Creek (E), Phipps Creek (N), Phipps Creek West, Poall Creek, Powell Creek, Sheep Corral Creek, South Alkali, Storie Gulch, Thorn Flat, Unallotted (multiple), West Highway, and Willow Creek Livestock (managed by the BLM). Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Note that while this discussion is identifying all allotments within a half mile of the alternative routes and variations, Appendix G identifies only those allotments actually crossed by the alternative routes and variations, which is why allotments may be included here, but not listed in the appendix as being affected by the B2H Project.

Table 3-314 identifies the BLM-administered grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternative and route variations in Segment 4. Refer also to MV-18.

Table 3-314. Inventory Data for Grazing Allotments in Segment 4—Brogan

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office	Number of Allotments Crossed[1,3]	Active Animal Unit Month[1,3]	Total Allotment Acres[1,4]	Acres in the Study Corridor[1,5]
Applicant's Proposed Action	40.1	Baker Field Office	6	1,243	52,875	7,767
		Malheur Field Office	12	11,570	136,776	15,344
Variation S4-A1	*5.9*	*Baker Field Office*	*5*	*548*	*32,236*	*3,465*
Variation S4-A2	*6.0*	*Baker Field Office*	*7*	*2,567*	*46,825*	*3,309*
Variation S4-A3	*6.1*	*Baker Field Office*	*6*	*2528*	*43,103*	*3,363*
Tub Mountain South	40.5	Baker Field Office	11	3,739	54,766	5,874
		Malheur Field Office	6	21,521	123,213	13,661
Willow Creek	34.6	Baker Field Office	8	2,223	57,853	6,849
		Malheur Field Office	6	14,315	86,227	8,667

Table Notes:
[1]Data source is the U.S. Forest Service and the Bureau of Land Management grazing allotments datasets.
[2]Number of allotments crossed by the B2H Project 1-mile-wide study corridor.
[3]Active animal unit months of allotments crossed by the B2H Project 1-mile-wide study corridor.
[4]Total acres of allotments that are crossed by the B2H Project 1-mile-wide study corridor (including areas of allotments outside of the study corridor).
[5]Acres of allotments present in the B2H Project 1-mile-wide study corridor.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action has 18 allotments and 23,111 allotment acres present in the study corridor.

Variations S4-A1 through S4-A3

Of these route variations, Variation S4-A2 has the most allotments and Variation S4-A1 has the fewest allotments present in the study corridor. However, Variation S4-A2 has the fewest allotment acres and Variation S4-A1 has the most allotment acres in the study corridor.

Tub Mountain South Alternative

Compared to the Applicant's Proposed Action Alternative, the Tub Mountain South Alternative has 1 fewer allotment and 3,576 fewer allotment acres present in the study corridor.

Willow Creek Alternative

Compared to the Applicant's Proposed Action Alternative, the Willow Creek Alternative has 4 fewer allotments present in the study corridor and 7,595 fewer allotment acres present in the study corridor.

SEGMENT 5—MALHEUR

Existing Agriculture

This section describes existing crops, irrigated agriculture, CAFOs, and tree farms present in the study corridor for the Applicant's Proposed Action Alternative and all other alternatives and route variations in Segment 5. Existing agriculture present in Segment 5 includes fallow/Idle cropland, field crops, vegetable operations, orchards of fruit and tree nuts, and grassland/pasture. There are no tree farms, or CAFOS present. There is one critical groundwater area in Malheur County, the Cow Valley critical groundwater area, and groundwater in this area is at historic lows (Ward 2010). The Applicant's Proposed Action and none of the other alternative routes and variation study corridors cross this critical groundwater area. Data are not available to indicate how much land is sprayed with pesticides, but it is anticipated that all cultivated land could be sprayed.

Comments on the Draft EIS indicated that there is irrigation infrastructure managed by the Owyhee Irrigation District present in the study corridor for Segment 5. The BLM has obtained the Owyhee Irrigation District's GIS data showing the locations of siphons, pipelines, laterals, and canals used to transport water from the Owyhee River to agricultural operations in Malheur County. All alternatives and variations in this Segment have these Owyhee Irrigation District facilities present in the study corridor.

Table 3-315 identifies crops in the study corridor and Table 3-316 identifies irrigated farmland in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 5. Refer also to MV-16.

Table 3-315. Inventory Data for Crop Types in Segment 5—Malheur								
Alternative Route	Total Length (miles)	Crop Type Crossed (acres)						Confined Animal Feeding Operations (count)[3]
		Fallow/Idle Cropland[1]	Field Crops[1]	Fruit and Tree Nuts[1]	Grass/ Pasture[1]	Vegetables[1]	Tree Farms[2]	
Applicant's Proposed Action	40.4	155	308	0	13,685	5	0	0
Variation S5-A1	*7.4*	*52*	*85*	*0*	*3,863*	*1*	*0*	*0*
Variation S5-A2	*7.4*	*1*	*7*	*0*	*3,939*	*0*	*0*	*0*
Variation S5-B1	*2.5*	*33*	*157*	*0*	*552*	*2*	*0*	*0*
Variation S5-B2	*2.8*	*74*	*443*	*1*	*577*	*13*	*0*	*0*
Malheur S	43.5	54	37	0	10,092	2	0	0
Malheur A	43.1	47	37	0	9,677	1	0	0

Table Notes:
These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the U.S. Department of Agriculture CropScape
[2]Data source is the Boardman Tree Farm as digitized from aerial imagery
[3]Data source is the Oregon Department of Agriculture confined animal feeding operations and self-reported dairies.

Table 3-316. Inventory Data for Irrigation Types in Segment 5—Malheur						
Alternative Route	Total Length (miles)	Irrigation Type Crossed (acres)				
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Center Pivot Count
Applicant's Proposed Action	40.4	52	100	43	28	2
Variation S5-A1	*7.4*	*36*	*73*	*0*	*0*	*1*
Variation S5-A2	*7.4*	*0*	*0*	*0*	*0*	*0*
Variation S5-B1	*2.5*	*0*	*25*	*26*	*0*	*1*
Variation S5-B2	*2.8*	*0*	*54*	*113*	*0*	*1*
Malheur S	43.5	0	0	17	0	0
Malheur A	43.1	0	0	17	0	0

Table Notes: Data source for this table includes cultivated farmland classified as dryland or as an irrigation type digitized from aerial imagery within the B2H Project 1-mile-wide study corridor for each alternative and variation. Center pivot count includes partial or full pivots within the 1-mile-wide study corridor for each alternative and variation.

Applicant's Proposed Action Alternative

The most common crop types present in the study corridor for the Applicant's Proposed Action Alternative are field crops and grasslands/pasture. There also are vegetable farming operations, orchards of fruit tree and nuts, and fallow/idle cropland. There are no tree farms or CAFOs operating in the study corridor. Most irrigated farmland in the study corridor is irrigated by center pivot irrigation. Some irrigated farmland is irrigated with flood or other mechanized irrigation. There is some dryland present in the study corridor. The Applicant's Proposed Action Alternative has the most crops and irrigated farmland present in the study corridor of all alternative routes in Segment 5.

This alternative route has Owyhee Irrigation District infrastructure present in the corridor, including one canal and one lateral (the Kingman Lateral) present in the study corridor.

Variations S5-A1 and S5-A2

Variation S5-A1 has more field crops, fallow/idle farmland, and vegetables present in the study corridor than Variation S5-A2. Variation S5-A2 has more grasslands/pasture in the study corridor than Variation S5-A1. Variation S5-A2 has no irrigated farmland present in the study corridor, while variation S5-A1 has center pivot irrigation. These route variations do not have Owyhee Irrigation District infrastructure present in the study corridor. These variations have an Owyhee Irrigation District canal, three siphons, and two laterals present in the study corridor.

Variations S5-B1 and S5-B2

Variation S5-B2 has more fallow/idle cropland, field crops, orchards of fruit and tree nuts, vegetables, and orchards of fruit and tree nuts than Variation S5-B2. Variation S5-B2 has more center pivot- and flood-irrigated farmland than Variation S5-B2.

Malheur S Alternative

The Malheur S Alternative has less fallow/idle cropland, field crops, grassland/pasture, and vegetables than the Applicant's Proposed Action Alternative. Irrigated farmland present in this study corridor is the least of all alternative routes in Segment 5. This alternative route has one Owyhee Irrigation District siphon present in the study corridor.

Malheur A Alternative

The Malheur A Alternative has the least fallow/idle cropland, field crops, grasslands/pasture, and vegetables present in the study corridor of all alternatives in Segment 5. Irrigated farmland in this study corridor is the same as the Malheur S Alternative. This alternative route has one Owyhee Irrigation District siphon present in the study corridor.

Important Farmland, High-value Soils, and Conservation Reserve Program Lands

This section examines important farmland, high-value soils, and CRP lands in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 5. Segment 5 contains prime farmland if irrigated, farmland of statewide importance, and high-value soils. No prime farmland or unique farmland is present in this study corridor for the alternatives and route variations in Segment 5. Table 3-317 identifies the important farmland and high-value soils in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 5. Refer also to MV-17.

Table 3-317. Inventory Data for Important Farmland and High-Value Soils in Segment 5—Malheur				
Alternative Route	Total Length (miles)	Important Farmland (acres)		High-Value Soils[3] (acres)
		Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	
Applicant's Proposed Action	40.4	26	299	4,287
Variation S5-A1	*7.4*	*0*	*0*	*991*
Variation S5-A2	*7.4*	*0*	*0*	*1,149*
Variation S5-B1	*2.5*	*26*	*264*	*375*
Variation S5-B2	*2.8*	*304*	*362*	*747*
Malheur S	43.5	0	<1	1,902
Malheur A	43.1	0	<1	1,843

Table Notes*:* These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data.
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained.
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Also, lands enrolled in the USDA CRP are present in Segment 5. CRP data were not available in a format to allow an inventory for each alternative and route variation in Segment 5. Rather, data were available by county (refer to Table 3-318). In 2014, there were 318 acres of CRP lands in counties crossed by alternative routes and segments in Segment 5. However, no CRP lands are crossed by the Applicant's Proposed Action or any of the alternative routes or variations in Segment 5.

Table 3-318. County Conservation Reserve Program Acres Enrolled 2010-2014 in Segment 5—Malheur					
County	2010	2011	2012	2013	2014
Malheur	341	358	358	358	318

Table Note: Data is sourced from the U.S. Department of Agriculture Farm Service Agency Conservation Program index at http://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index.

Applicant's Proposed Action Alternative

Farmlands present in the study corridor include prime farmland if irrigated, farmland of statewide importance, in addition to high-value soils. The Applicant's Proposed Action Alternative has the most prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor in Segment 5.

Variations S5-A1 and S5-A2

These route variations are similar; neither has prime farmland if irrigated or farmland of statewide importance present in the study corridor, but Variation S5-A2 has more high-value soils present in the study corridor.

Variations S5-B1 and S5-B2

Variation S5-B2 has more prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor than Variation S5-B1.

Malheur S Alternative

The Malheur S Alternative has less prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the study corridor than the Applicant's Proposed Action Alternative.

Malheur A Alternative

The Malheur A Alternative is similar to the Malheur S Alternative.

Livestock Grazing

This section examines grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 5. Grazing allotments relevant to Segment 5 include Black Jack, Board Corrals, Bully Creek, Cottonwood Mountain, Dry Creek, Little Valley, Lower Owyhee, Mitchell Butte, Nyssa, Radar Hill, Sourdough, Tunnel Canyon, and West Bench (managed by the BLM). Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Note that while this discussion is identifying all allotments within a half mile of the alternative routes and variations, Appendix G identifies only those allotments actually crossed by the alternative routes and variations, which is why allotments may be included here, but not listed in the appendix as being affected by the B2H Project.

Table 3-319 identifies the BLM- and USFS-administered grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternative and route variations in Segment 5. Refer also to MV-18.

Table 3-319. Inventory Data for Grazing Allotments in Segment 5—Malheur

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office	Number of Allotments Crossed[1,3]	Active Animal Unit Month[1,3]	Total Allotment Acres[1,4]	Acres in the Study Corridor[1,5]
Applicant's Proposed Action	40.4	Malheur Field Office	11	32,713	331,053	24,430
Variation S5-A1	*7.4*	*Malheur Field Office*	*3*	*12,205*	*120,336*	*4,917*
Variation S5-A2	*7.4*	*Malheur Field Office*	*3*	*12,205*	*120,336*	*5,229*
Variation S5-B1	*2.5*	*Malheur Field Office*	*3*	*7,084*	*96,887*	*1,576*
Variation S5-B2	*2.8*	*Malheur Field Office*	*3*	*7,084*	*96,887*	*1,144*
Malheur S	43.5	Malheur Field Office	10	28,163	305,927	27,438
Malheur A	43.1	Malheur Field Office	10	28,163	305,927	27,029

Table Notes:
[1]Data source is the U.S. Forest Service and the Bureau of Land Management grazing allotments datasets.
[2]Number of allotments crossed by the B2H Project 1-mile-wide study corridor.
[3]Active animal unit months of allotments crossed by the B2H Project 1-mile-wide study corridor.
[4]Total acres of allotments that are crossed by the B2H Project 1-mile-wide study corridor (including areas of allotments outside of the study corridor).
[5]Acres of allotments present in the B2H Project 1-mile-wide study corridor.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action has 11 allotments and 24,430 acres present in the study corridor. These allotments are permitted for 32,713 AUMs.

Variations S5-A1 and S5-A2

These route variations have the same 3 allotments present in the study corridor, but Variation S5-A2 has 312 more allotment acres present in the study corridor.

Variations S5-B1 and S5-B2

These route variations have the same 3 allotments present in the study corridor, but Variation S5-B1 has 432 more allotment acres present in the study corridor.

Malheur S Alternative

Compared to the Applicant's Proposed Action Alternative, the Malheur S Alternative has 1 less allotment present in the study corridor. However, this alternative route has 3,008 more allotment acres present in the study corridor.

Malheur A Alternative

The Malheur A Alternative is similar to the Malheur S Alternative, except that there are fewer acres of allotments in the study corridor.

Segment 6—Treasure Valley

Existing Agriculture

This section describes existing crops, irrigated agriculture, CAFOs, and tree farms present in the study corridor for the Applicant's Proposed Action Alternative and all other alternatives and route variations in Segment 6. Existing agriculture present in Segment 6 includes fallow/Idle cropland, field crops, orchards of fruit and tree nuts, and grassland/pasture. There are no vegetable operations, tree farms, or CAFOS present. There are no critical groundwater areas, but water rights are still obtained by farmers for irrigation. Data are not available to indicate how much land is sprayed with pesticides, but it is anticipated that all cultivated land could be sprayed.

Table 3-320 identifies crops in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 6. Table 3-321 identifies irrigated farmland in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 6. Refer also to MV-16.

Table 3-320. Inventory Data for Crop Types in Segment 6—Treasure Valley								
Alternative Route	Total Length (miles)	Crop Type Crossed (acres)						Confined Animal Feeding Operations (count)[3]
		Fallow/ Idle Cropland[1]	Field Crops[1]	Fruit and Tree Nuts[1]	Grass/ Pasture[1]	Vegetables[1]	Tree Farms[2]	
Applicant's Proposed Action	28.0	43	94	1	5,688	0	0	0
Variation S6-A1	*9.3*	*6*	*6*	*0*	*2,214*	*0*	*0*	*0*
Variation S6-A2	*8.9*	*16*	*79*	*0*	*2,550*	*0*	*0*	*0*
Variation S6-B1	*14.4*	*38*	*34*	*1*	*2,263*	*0*	*0*	*0*
Variation S6-B2	*14.1*	*15*	*4*	*0*	*1,736*	*0*	*0*	*0*

Table Notes:
These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the U.S. Department of Agriculture CropScape
[2]Data source is the Boardman Tree Farm as digitized from aerial imagery
[3]Data source is the Oregon Department of Agriculture confined animal feeding operations and self-reported dairies.

Table 3-321. Inventory Data for Irrigation Types in Segment 6—Treasure Valley (acres)						
Alternative Route	Total Length (miles)	Irrigation Type Crossed (acres)				
		Dryland[1]	Center Pivot Irrigation[1]	Flood Irrigation[1]	Other Mechanized Irrigation[1]	Center Pivot Count[1]
Applicant's Proposed Action	28.0	2	1	136	0	1
Variation S6-A1	*9.3*	*0*	*0*	*0*	*0*	*0*
Variation S6-A2	*8.9*	*0*	*119*	*15*	*0*	*6*
Variation S6-B1	*14.4*	*0*	*0*	*36*	*0*	*0*
Variation S6-B2	*14.1*	*0*	*0*	*0*	*0*	*0*

Table Note: [1]Data source for this table includes cultivated farmland classified as dryland or as an irrigation type digitized from aerial imagery within the B2H Project 1-mile-wide study corridor for each alternative and variation. Center pivot count includes partial or full pivots within the 1-mile-wide study corridor for each alternative and variation.

Applicant's Proposed Action Alternative

The most common crop type present in the study corridor for the Applicant's Proposed Action is grassland/pasture. Some fallow/idle cropland, field crops, and orchards of fruit and tree nuts also are present. Most irrigated agriculture is irrigated with flood irrigation. There is 1 pivot in the study corridor.

Variations S6-A1 and S6-A2

Variation S6-A2 has more crops present in the study corridor than Variation S6-A1. Variation S6-A1 has no irrigated agriculture present in the study corridor, while Variation S6-A2 has pivot and flood irrigation, including 6 pivots.

Variations S6-B1 and S6-B2

Variation S6-B1 has more crops present in the study corridor and has flood irrigation, while Variation S6-B2 has no irrigated farmland present in the study corridor.

Important Farmland, High-value Soils, and Conservation Reserve Program Lands

This section examines important farmland, high-value soils, and CRP lands in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 6. Segment 6 contains prime farmland if irrigated, farmland of statewide importance, and high-value soils. No prime farmland or unique farmland is present in this study corridor for the alternatives and route variations in Segment 6. Table 3-322 identifies the important farmland and high-value soils present in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 6. Refer also to MV-17.

Table 3-322. Inventory Data for Important Farmland and High-Value Soils in Segment 6—Treasure Valley (acres)

Alternative Route	Total Length (miles)	Important Farmland (acres)		High-Value Soils[3] (acres)
		Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	
Applicant's Proposed Action	28.0	2,589	1,963	2,793
Variation S6-A1	*9.3*	*280*	*344*	*487*
Variation S6-A2	*8.9*	*427*	*681*	*788*
Variation S6-B1	*14.4*	*1,490*	*1,796*	*1,190*
Variation S6-B2	*14.1*	*1,383*	*1,214*	*1,316*

Table Notes: These are for resource inventory within the B2H Project 1-mile-wide study corridor.
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data.
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained.
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Also, lands enrolled in the USDA CRP are present in Segment 6. CRP data were not available in a format to allow an inventory for each alternative and route variation in Segment 6. Rather, data were available by county (refer to Table 3-323). In 2014, there were 318 acres of CRP lands in counties crossed by alternative routes and segments in Segment 6. However, no CRP lands are crossed by the Applicant's Proposed Action or any of the alternative routes or variations in Segment 6.

Table 3-323. County Conservation Reserve Program Acres Enrolled 2010-2014 in Segment 6—Treasure Valley

County	2010	2011	2012	2013	2014
Malheur	341	358	358	358	318
Owyhee	0	0	0	0	0

Table Note: Data is sourced from the U.S. Department of Agriculture Farm Service Agency Conservation Program index at http://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index.

Applicant's Proposed Action Alternative

Farmlands present in the study corridor include prime farmland if irrigated, and farmland of statewide importance, in addition to high-value soils.

Variations S6-A1 and S6-A2

Variation S6-A2 has more prime farmland if irrigated, farmland of statewide importance, and high-value soils present in the corridor.

Variations S6-B1 and S6-B2

Variation S6-B1 has more prime farmland if irrigated and farmland of statewide importance, but less high-value soils present in the corridor than S6-B2.

Livestock Grazing

This section examines grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternatives and route variations in Segment 6. Grazing allotments relevant to Segment 6 include Alkali-Wildcat, Board Corrals, Canal, Elephant Butte, Graveyard Point, Hardtrigger, Poison Creek, Rats Nest, Reynolds Creek, and Strodes Basin (managed by the BLM). Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Note that while this discussion is identifying all allotments within a half mile of the alternative routes and variations, Appendix G identifies only those allotments actually crossed by the alternative routes and variations, which is why allotments may be included here, but not listed in the appendix as being affected by the B2H Project.

Table 3-324 identifies the acres of BLM- administered grazing allotments in the study corridor for the Applicant's Proposed Action Alternative and other alternative and route variations in Segment 6. Refer also to MV-18.

Table 3-324. Inventory Data for Grazing Allotments in Segment 6—Treasure Valley						
Alternative Route	**Total Length (miles)**	**Bureau of Land Management Field Office**	**Number of Allotments Crossed[1,3]**	**Active Animal Unit Month[1,3]**	**Total Allotment Acres[1,4]**	**Acres in the Study Corridor[1,5]**
Applicant's Proposed Action	28.0	Malheur Field Office	1	4,182	60,955	1,905
		Owyhee Field Office	9	9,900	116,551	13,990
Variation S6-A1	*9.3*	*Malheur Field Office*	*1*	*4,182*	*60,955*	*1,340*
		Owyhee Field Office	*3*	*2,847*	*23,994*	*4,084*
Variation S6-A2	*8.9*	*Malheur Field Office*	*1*	*4,182*	*60,955*	*722*
		Owyhee Field Office	*3*	*2,847*	*23,994*	*3,576*
Variation S6-B1	*14.4*	*Owyhee Field Office*	*7*	*7,793*	*97,837*	*9,053*
Variation S6-B2	*14.1*	*Owyhee Field Office*	*7*	*7,793*	*97,837*	*9,061*

Table Notes:
[1]Data source is the U.S. Forest Service and the Bureau of Land Management grazing allotments datasets.
[2]Number of allotments crossed by the B2H Project 1-mile-wide study corridor.
[3]Active animal unit months of allotments crossed by the B2H Project 1-mile-wide study corridor.
[4]Total acres of allotments that are crossed by the B2H Project 1-mile-wide study corridor (including areas of allotments outside of the study corridor).
[5]Acres of allotments present in the B2H Project 1-mile-wide study corridor.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action has 10 allotments and 15,895 acres present in the study corridor. These allotments are permitted for 14,082 AUMs.

Variations S6-A1 and S6-A2

These route variations have the same 4 allotments present in the 1-mile-wide study corridor, but Variation S6-A1 has 1,126 more allotment acres present in the study corridor.

Variations S6-B1 and S6-B2

These route variations have the same 7 allotments present in the 1-mile-wide study corridor, but Variation S6-B2 has 8 more allotment acres in the study corridor.

3.2.7.6 Environmental Consequences (Results of Analysis)

This section generally describes the environmental consequences of the Applicant's Proposed Action Alternative and other alternatives and route variations on agriculture. The impacts of each of the alternatives to the Proposed Action are discussed in this section, which is organized by segment and the alternatives that occur within each segment. Impacts of the alternatives are compared to the Proposed Action to illuminate the differences, including advantages and disadvantages of each alternative.

Types of Potential Effects

This section discusses the types of impacts that would occur with construction, operation, and maintenance of the B2H Project. For information related to agricultural economic impacts, refer to Section 3.2.17.

Existing Agriculture

Crop Production and Confined Animal Feeding Operations

The B2H Project components, including towers, communication sites, and substations, could temporarily or permanently displace some current agricultural uses.

Construction effects on crop production could include:

- Temporary disruption of the current use during the construction period: Existing crops in cultivated farmland would be temporarily disturbed to enable construction of B2H Project facilities, such as tensioning and pulling sites and access roads for construction equipment.
- Interruption of planting schedules: Because of limited time frames for seeding particular crops, landowners could lose an entire year of crops in construction areas if construction schedules affected planting season.

The Applicant would have the right for ingress and egress necessary for maintenance purposes, including cutting, trimming, and removal of trees or other obstructions that could interfere with the operation, maintenance, and repair of B2H Project facilities. Thus, operation and maintenance effects on agriculture could include:

- Maintenance access: this could require driving over fields to access the transmission towers or other facilities, interfering with operations and damaging crops.
- Land-use restrictions: these could prevent the erection or placement of any building or structure or the storage of flammable material in the right-of-way.
- Vegetation restrictions limiting the types of crops that can grow in the right-of-way based on vegetation height: Over the long term, tall vegetation would be managed as specified in Section 2.3.2, System Construction. Vegetation management involves two zones. First, the wire zone, which is a linear area under the wire and extends 10 feet to the outermost of the most outside wire. In the wire zone, vegetation must remain under 5 feet. Second, the border zone, which extends from the wire zone to the right-of-way. Vegetation can grow up to 25 feet in the border zone. The Applicant would remove all tree species within the right-of-way when the conductor ground clearance is less than 50 feet. Conductor clearance on the B2H Project is typically 40 feet.
- Machinery restrictions: Most farm machinery, including plowing and harvesting equipment, can work underneath conductors and up to bases of structures. However, some logging machinery, such as log loaders or feller bunchers, could be too tall to work under conductors, particularly when carrying logs.
- Removal of land from crop production: Structures typically occupy approximately 2,500 square feet but require 62,500 square feet of temporary disturbance to construct. Depending on the route selected, some acreage would be taken out of production under transmission structures, and the support structures would be in the way of farm equipment. There could be an additional loss of crop production if structures are set close to the edge of a field, but not outside the field, so that farm equipment cannot fit between the structure and the edge of the field.

- Stagnant land susceptible to invasive species: Areas under structures that are not in production would be susceptible to invasive species and pest infestations, which could spread to nearby crops.
- Increased production costs: The diversion of equipment around structures, reduction of cultivated areas, and the additional time needed to accommodate structures reduces efficiency of farming practices.
- CAFO NPDES permits: The development of the B2H Project could affect the CAFO NPDES permits or comprehensive nutrient management plans because the area that could be treated with manure would be reduced, thus affecting the ratio of animal units to crop area. Additionally, infrastructure for applying the manure is located in crop fields and in circle pivot corners, which could be affected by the B2H Project (EPA 2010).
- Growth-induced effects: a long-term, indirect impact on crop production and CAFOs could be the potential for growth-induced effects related to adding facilities and creating a utility corridor where one does not previously exist. Oregon law promotes siting new transmission lines where transmission lines currently exist. Thus, future transmission lines could be colocated with this transmission line, further affecting crop production and CAFOs. Potential for induced development would depend on city and county planning and zoning authorities. Refer to Section 3.2.6 Land Use for a discussion of compliance of the B2H Project with zoning and land-use plans.
- Interruption of GPS signals: GPS devices, such as those in farm equipment, generally use signals from multiple satellites. They also may use a base station to pull a signal from. If an object, such as a tower structure or conductor, is placed between the base station and the GPS unit, it could temporarily interrupt or scatter the satellite signal. However, corona-generated interference would most likely not affect GPS units since GPS units operate at frequencies of 1757.42 megahertz and 1227.6 megahertz and transmission lines have a frequency of 60 hertz in the U.S. The potential for interference from corona effects is greater in rainy weather. In addition, GPS units typically pull from multiple satellites; if one object is in the path of the signal, it automatically compensates by pulling a signal from another satellite (DOE and State of Montana DEQ 2008).
- Interference with Global Navigation Satellite Systems: These agricultural navigation systems are used in farming equipment in the B2H Project area (as indicated by comments on the Draft EIS). A study published in 2012 in the journal Computers and Electronics in Agriculture studied the effects of two 500-kV DC lines and one 230-kV AC line on global navigation satellite systems used by agricultural producers. The study concluded that only obstructions of signals caused by conductors and towers, caused by brief masking of the transmission line facilities created nonimpeding affects (Bancroft et al. 2012).

Irrigated Agriculture

In general, the potential impacts on irrigated agriculture could be greater than effects on dryland because irrigated agriculture requires more infrastructure and more intensive farming operations than

dryland farming. Construction activities for the B2H Project could have more impact on irrigated agriculture than operation activities. Construction impacts could include:

- Interruption of water delivery: Construction activities could temporarily affect the ability of agricultural operations to bring water to their crops if agricultural operators are unable to access or maintain irrigation infrastructure, such as irrigation pumps or canals
- Interrupted irrigation schedules: Similar to the potential effects on crop production and CAFOs, construction of B2H Project facilities, such as access roads and structures, could affect irrigation schedules, interrupting irrigation application.

Operation and maintenance potential effects on irrigation systems could include:

- Safety Issues: Spray-type irrigation systems (such as those used in pivot or other mechanized irrigation systems) and flood irrigation systems typically are not hazardous when used under transmission lines. Irrigation pivots could spray underneath transmission lines, including high profile pivots. Pivots usually have a gun located at the outermost part, which increases the spray coverage (Tam and Petersen 2014). However, water from irrigation guns could be unsafe if allowed to contact transmission line conductors. Irrigation guns are typically used in pastures or at the end of pivots, and have flowrates that exceed 50 gallons per minute (Tam and Petersen 2014). Conductors at their lowest points would be 37 feet aboveground, which should be above end gun water stream. Water hitting the transmission towers is not an issue. Prior to construction of the B2H Project, the Applicant would discuss with property owners potential hazards with current and future irrigation systems, and how they could be addressed (Idaho Power Company n.d.a).
- Water use and water rights: In some areas in the study corridor, water use and water rights are highly regulated. Because water rights are tied to specific lots of land, irrigation systems on farmland cannot be relocated to other farmland not listed in the right unless it follows a transferring process. Water must be used or risk forfeiture. Thus, removing acres from irrigation reduces the ability of landowners to use water appropriated to them. As introduced in the regulatory framework, critical groundwater areas in Morrow, Umatilla, and Malheur Counties will not allow new water rights. If these water rights are lost, it is possible that they may not be reobtained (Ward 2010).
- Irrigation infrastructure: Tower structures and other B2H Project facilities could be located to inhibit the normal movement of irrigation infrastructure. For example, in the case of a pivot, this would result in a Pac-Man© shaped field or in shortening of the pivot arm. Corners of fields also may contain irrigation wells and pumping equipment, which could have reduced access if B2H Project facilities are colocated with them. Irrigation infrastructure could need reconfiguring.
- Reduced ability to add future irrigation systems or expand current irrigation systems: Pivots can be equipped with cornering systems to take advantage of an entire square quarter section of land. Because water rights are tied to specific plots of land, these corners also are ideal locations for increased crop production, as opposed to separate plots of land. If tower structures

are located in these undeveloped areas, it limits landowners' future ability to develop these areas.

- Interruption of GPS equipment: Auto steering tractors and irrigation systems could have GPS signals interrupted, which could halt or interrupt the movement of the equipment.

The greatest potential effects on irrigation would be associated with center pivots. Center pivot systems consist of a single lateral pipe supported by trusses on wheels with one end anchored to a fixed point and the other end free to move in a circle around the pivot point. Lengths of the lateral pipe range from 200 to 2,600 feet. In some instances, irrigation infrastructure is located within pivot corners, making some corners unsuitable for placement of structures.

Pivots are generally less labor intensive and distribute water more efficiently than other irrigation types. They operate most efficiently and distribute water most effectively when they complete the entire circle and continue in the same direction on a permanent basis. If a B2H Project tower structure is placed in the path of a pivot, the pivot can be programmed to reverse its direction, resulting in Pac-Man© shaped fields. When reversing direction is required, the frequency of application to a specific ground site becomes imbalanced depending on where in the arc of the pivot circle the site is located. For example, assume a pivot is programmed to complete its entire circle in 24 hours in the same direction on a continual basis. Each site in the circle is watered every 24 hours. If it is required to reverse its path due to a structure preventing it from completing the entire circle, the frequency of application on each end of the path will be 48 hours, and the frequency would be 24 hours halfway around the circle. Such imbalanced application could significantly affect crop production. Alternatively, the pivot direction could be reversed, with no water applied, to its starting point. Each cycle would start and water would be applied going in one direction, resulting in a 12-hour period of no water application.

A B2H Project tower structure located near the outer end of a center pivot could require a lateral arm to be shortened, thereby reducing the area covered by the pivot for its entire circumference. As an example, a 100-foot reduction in the length of the pivot arm would reduce the area covered by approximately 18 acres. Also, B2H Project conductors cannot come in contact with end guns for safety reasons. However, some specific types of pivot irrigation systems are capable of irrigating fields with variable boundaries, or obstacles in the path of a traditional pivot (Zimmatic 2011).

Wheel-line systems (also known as "wheelmove" or "sideroll" or "lateral-roll irrigation machines") are composed of the mover, lateral pipe, wheels, sprinklers, couplers, and connectors to the mainline supply. System lengths vary, but most are 1,280 feet long and made up of sections of pipe that can be disassembled. Wheels on these systems vary from 5 to 10 feet in diameter and are connected using a lateral pipe that acts as both the axle and transporter of water to the sprinklers. Sprinklers on these systems are normally impact sprinklers. The power mover, which drives the system, is mounted in the center of the wheel-line system. One end of the lateral pipe connects to the pressurized mainline pipe using a flexible hose. Outlet valves are located along the field to be irrigated at particular intervals. The operator of the system connects the flexible hose to these valves. During operation of the wheel-line system, the entire wheel-line system is driven by the operator down the field to where land needs to be irrigated. Alternatively, they may be self-driven using an automated guidance system or GPS. The hose

is connected to the valve, land is irrigated, and then the operator can again start the motor of the mover, and roll the system to the next area to be irrigated If the wheel-line system is automated, it travels the length of the field similarly to a pivot, except in a linear pattern, as opposed to a rotational pattern (Harrison et al. 2015; Hill 2000; Lake Company 2016).

Wheel-line systems could have to be reconfigured if a B2H Project tower structure is placed in its path for irrigation. Alternatively, for each irrigation cycle, the system could be partially disassembled, moved around the tower, and then reassembled for continued operation. However, this scenario would result in an indefinite inconvenience and increased labor costs.

Flood or surface irrigation is gravity-fed watering of fields where the surface of the field is the means of distributing the water. Water, usually supplied from canal systems operated by public or semi-public irrigation departments, is conveyed to fields using canals, lined ditches, open channels, or pipelines, and then flows across the field surface with a variety of methods that have been termed as "uncontrolled flooding," "basin irrigation," "border irrigation," and "furrow irrigation." These methods use a variety of techniques, such as dykes, siphons, furrows, surge flow, sloping or leveling of a field, among others, to control the uniformity and efficiency of water flow across a field, in addition to achieving adequate infiltration appropriate for the crop (Economic Research Service 2013; Food and Agricultural Organization of the United Nations n.d.).

Flood irrigation systems that perform optimally take care to precisely prepare fields, schedule irrigation, regulate inflow discharges, and control tail water runoff. Controlling tail water runoff involves collecting water that has flowed across the field, and pumping to the inlet of the field, where it is again released across the field (Food and Agricultural Organization of the United Nations n.d.).

Potential effects of the B2H Project on any type of flood irrigation system would be similar. Construction of B2H Project facilities, such as structures or access roads, could affect precise grades of fields and disrupt flow of water across fields although the Applicant would reclaim all access roads to landowner specifications. Structures placed in flood-irrigated fields could have long-term impacts on the irrigation, as footings and grading of soils at the base of the structure would interrupt flow of irrigation water across the field.

Potential effects on dryland farming would be the least of any irrigation system as it does not involve any irrigation system and, thus, impacts on irrigation of dryland farming are low. Potential effects on crops grown using dryland farming methods are discussed under crop production and CAFOs.

Finally, a long-term, indirect impact on irrigated farmland could be the potential for growth-induced effects related to creating a utility corridor where one does not previously exist. Oregon law promotes siting new transmission lines where transmission lines currently exist. Thus, future transmission lines could be colocated with this transmission line, further affecting irrigated farmland. Potential for induced development would depend on city and county planning and zoning authorities. Refer to Section 3.2.6 Land Use for a discussion of the B2H Project compliance with zoning and land-use plans.

Application of Pesticides and Aerial Spraying

The application of pesticides (crop dusting) is common in the B2H Project area and the construction of the B2H Project could have a temporary and long-term direct impact on crop spraying. Both ground application and aerial spraying methods are used. Some pesticides/herbicides can only be applied effectively by air. A field can receive multiple applications per year depending on the type of crop and preferences of individual operators. Additionally, some crops are aerially seeded.

Construction potential effects include:

- Interruption of spraying/seeding schedules: construction activities could affect timing of spraying and seeding activities

Operation and maintenance potential effects include:

- Reduced spray coverage uniformity: Spray coverage uniformity could be affected by the presence of the B2H Project tower structures and transmission line. Crop dusters must maintain a minimum 10-foot distance from transmission structures (Idaho Power Company n.d.b). In some cases, by maintaining a safe lateral distance from the B2H Project, the product may not adequately cover the crop under the transmission line. In this case, the desired results of controlling weeds, insects, or diseases could be reduced, as would uniform seeding.
- Safety for aerial applicators: Personnel operating sprayers are at increased risk for coming in contact with obstacles such as conductors or tower structures.
- Inability to access landing strips used for aerial spraying: depending on the action alternative, construction of the B2H Project could make landing strips unusable.
- Potential for not completely eradicating pests: Because of the reduced spray coverage uniformity that could occur, areas of land could be missed while spraying.
- Crop damage: Because of the reduced spray coverage uniformity that could occur, crops may be sprayed two or more times, which could damage crops.

In general, it is difficult to achieve uniformity of application of pesticides, fertilizer, and seed around transmission tower structures when ground application techniques or aerial spraying/seeding is used. Further, after a ground application is made around a tower it is difficult on the next pass for the operator to determine where the outer edge of the spray application was made and align the sprayer to avoid overlapping; consequently, double spraying could occur. Depending on the product, this could result in crop damage.

Aerial spraying involves dry application (usually fertilizer) and liquid applications of fungicides and pesticides. Fixed-wing aircraft typically carry 3,000 pounds of dry fertilizer or 500 gallons of liquid mixtures. Helicopter loads vary considerably depending on the type of craft. Effective ranges for spray aircraft are normally 25 to 30 miles. Nearly all of the spraying is done during daylight hours.

Landing strips used by aerial operators currently exist at several locations in the study corridor, and the aerial applicators have expressed concern about the B2H Project affecting their operations. Operators sometimes use landing strips other than their own to maintain some degree of efficiency. Landing strips

used need to have ample clearance at each end of the runways due to the heavy loads carried by the aircraft. Due to the reliance that crop producers place on them, aerial applicators are vital to the local economy.

During construction, applicators might need to modify spray patterns due to construction activities. The presence of construction workers could delay applications. The presence of the B2H Project also would increase the risk to aerial applicators. Tower guy wires are not proposed for the B2H Project, which is a safety advantage to aerial applicators because guy wires are difficult to see and cover a larger ground space than towers without them. Aerial spraying near hills and ridges can cause downdrafts and updrafts, which could increase risks to the applicator if the B2H Project is located near this type of terrain.

If the B2H Project is located along the edges of fields, existing roadways, or natural boundaries rather than through existing fields, there would be less risk to the applicator and more efficiency in product application, as well as more land being used to its capacity compared to where the B2H Project crossed a portion of a field. Also, if the B2H Project crossed a field at an odd angle, it could be more difficult to maintain a uniform application. The Applicant would work with land owners to locate the transmission line to run parallel to crop duster paths (Idaho Power Company n.d.b).

In summary, potential effects on the ability of aerial applicators to safely provide services could be increased cost, reduced efficiency and uniformity, increased potential for not completely eradicating pests (which could lead to pesticide resistance), potential damage to crops from ground applications, and lower crop yields.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

Important farmland and high-value soils within the construction areas could be temporarily unavailable for agricultural uses during construction of the B2H Project. However, except for footprints of permanent facilities, agricultural uses could resume when the construction in the area is completed.

Potential effects of construction activities (e.g., creation of access roads, work areas, staging, and wire pulling/splicing) could include:

- soil erosion,
- damage to agricultural land soil drainage,
- the mixing of topsoil and subsoil,
- the loss of topsoil,
- soil compaction.

However, reclamation measures would keep disturbed prime farmland soil losses to a minimum. Construction areas not to be used for operations would be reclaimed as soon as possible following construction.

Potential effects from operation and maintenance include:

- The long-term occupation of important farmland and high-value soils by B2H Project tower structures resulting in the conversion of these soils to nonagricultural uses: Approximately 4 structures per mile would be installed. Self-supporting lattice towers occupy a 50 x 50-foot area at ground level, but require 250 x 250 feet of construction disturbance to soils. The important farmland and high-value soils under the structures would be lost to production. The area of loss of important farmland and high-value soils would be less than the temporary disruptions resulting from construction activities, but would be for a longer time interval, 50 years or more compared to the 36-month construction period.
- Potential for growth-induced effects related to creating a utility corridor where one does not previously exist: Oregon law promotes siting new transmission lines where transmission lines currently exist. Thus, future transmission lines could be colocated with this transmission line, further affecting important farmland and high-value soils. Potential for induced development would depend on city and county planning and zoning authorities. Refer to Section 3.2.6 Land Use for a discussion of compliance of the B2H Project with zoning and land-use plans.

Lands in CRP contracts would have impacts determined on a contract by contract basis and would follow procedures outlined in the Conservation Reserve Program Handbook, 2-CRP (rev. 5) Par. 572 B, Land Acquired Under Eminent Domain. This would be considered an involuntary loss of CRP acres for public use. Potential effects on CRP acres could include the loss of acres in particular contracts. The Farm Service Agency would determine which areas could not remain in the CRP. Areas that could not remain in CRP are locations of permanent B2H Project facilities (tower structures, stations, permanent access roads). All remaining land can remain in the contract. No refunds would be required of the producers, but annual payments would be reduced commensurate with the number of acres removed from the contract (Farm Service Agency 2015b; Kelly Worley, Conservation Program Specialist, personal communication with author, May 2, 2016).

Livestock Grazing

Grazing occurs on public and private lands in the study corridor, and is a source of income for private landowners. Both the USFS and BLM manage livestock grazing on active allotments in the study corridor. States also lease land for grazing and have similar systems in place for management of grazing leases. Note, except where federally managed grazing allotments occur on private land and where land is zoned as Exclusive Range Use, impacts on grazing on private land are not analyzed in this EIS because data to identify where grazing is occurring are unavailable.

Rangeland is used for feeding grazing animals during allocated times of the year. Grazing allotments are designated primarily for grazing cattle and sheep. The BLM objective for grazing lands is to ensure the long-term health and productivity of these lands, and to create multiple environmental benefits that result in healthy watersheds. The BLM livestock grazing program is managed in accordance with Rangeland Health Standards.

The productivity of grazing lands is measured in AUMs, the amount of forage needed by a cow and a calf or one bull for one month. An AUM is generally produced from 10 to 20 acres, depending on forage

quality. The number of authorized AUMs on BLM and USFS-administered lands can vary depending on factors such as drought, wildfire, and market conditions, Additional information on BLM grazing management can be found in the *Fact Sheet on the Bureau of Land Management's Management of Livestock Grazing* at (BLM 2016).

USFS management objectives for livestock grazing generally include:

- To manage range vegetation to protect basic soil and water resources, provide for ecological diversity, improve or maintain environmental quality, and meet public needs for interrelated resource uses.
- To integrate management of range vegetation with other resource programs to achieve multiple-use objectives contained in Forest land and resource management plans.
- To provide for livestock forage, wildlife food and habitat, outdoor recreation, and other resource values dependent on range vegetation.
- To contribute to the economic and social well-being of people by providing opportunities for economic diversity and by promoting stability for communities that depends on range resources for their livelihood.
- To provide expertise on range ecology, botany, and management of grazing animals.

Short-term impacts on grazing could result from temporary construction disturbance, including structure work areas, wire tensioning/pulling sites, helicopter fly yards, and temporary access roads. Impacts on grazing operations would be limited to areas of construction activity, and could include:

- Potential spread of noxious and invasive plant species,
- Interference with livestock management,
- Increased potential for livestock theft because of improved access,
- Interference with access to livestock operations, and
- Potential increased mortality of livestock from increased traffic.

Long-term impacts on grazing could include the loss of vegetation available for livestock forage. During operations and maintenance, pasture and rangeland would be removed from grazing where they are occupied by support structures, stations, regeneration stations, or access roads.

In addition to impacts on grazing allotments, short- and long-term impacts could occur on active lambing and/or calving areas. Short-term impacts could include:

- A reduction or loss of lambing/calving areas due to disturbance and noise from construction and maintenance equipment, resulting in increased mortality.
- Separation of cattle/ewes from water or food sources due to construction activities. Such separation would cause the cattle/ewes to move and consequently separate mothers from their young, resulting in increased mortality.

No Action Alternative

If the No Action Alternative is selected, impacts on agriculture, including crop production, CAFOs, important farmland and high-value soils, CRP lands, and livestock grazing, would continue unaffected by the B2H Project. Changes in agricultural land use are anticipated over time but no changes would be created by the B2H Project.

Effects Common to All Alternatives

Effects common to all alternatives would be expected with creation of the B2H Project. Bonneville Power Administration owns the land proposed for the B2H Project's northern terminus, Longhorn Substation. All alternatives in Segment 1 would require the creation of this substation near Boardman, Oregon. This planned substation is expected to be 20 acres of permanent disturbance. BPA acquired the property from the Port of Morrow in a location where there was likely to be a future need for transmission facilities based on trends in load growth and customer requests. The Port of Morrow retains water rights associated with the land. The property is intersected by a corridor that contains three existing BPA transmission lines. The land is zoned for industrial use, including utilities, and BPA constructed, owns, and operates the Morrow Flat Substation within the property boundary. The proposed B2H northern terminus could occupy another section of the property. BPA has an active Land Use Agreement with the Port of Morrow allowing them to utilize some of the property for center pivot, irrigated agricultural production. BPA has reserved the right to terminate the Land Use Agreement in the future if and when the need arises to do so. The area around the center pivot irrigated land is degraded grassland habitat dominated by weed species.

Neither important farmland nor high-value soils are present on the land that would be occupied for the Longhorn Substation. Also, there are no federal grazing allotments present on the land that would be occupied by the Longhorn Substation. Data is not available to determine whether CRP contracts would be affected with creation of the Longhorn Substation.

Potential impacts on agricultural operations would be largely avoided through implementation of design features of the B2H Project for environmental protection (refer to Table 2-7). Due to the intermittent nature and short duration of geotechnical investigation activities, impacts on livestock grazing would be low. Geotechnical testing would be coordinated with the landowner or lease. Overland travel on agricultural areas would be avoided unless approved by the landowner or leaseholder.

Segment 1—Morrow-Umatilla

Existing Agriculture

This section discloses impacts on existing agriculture in Segment 1 by alternative route and route variation. Table 3-325 presents the results related to existing agriculture. The data used to generate these results are displayed on MV-16. Table 3-326 presents the estimated long-term surface disturbance associated with each alternative and route variation. Table 3-327 presents estimated construction disturbance for the alternatives and route variations in Segment 1.

Table 3-325. Inventory Data and Residual Impacts for Crop Types and Irrigated Farmland in Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Irrigation Type (miles crossed)				Crop Type or Confined Animal Feeding Operation (miles crossed)							Overall Residual Impacts (miles crossed)		
		Dryland[1]	Center Pivot Irrigation[1]	Flood Irrigation[1]	Other Mechanized Irrigation[1]	Fallow/Idle Cropland[2]	Field Crops[2]	Fruit and Tree Nuts[2]	Grass/Pasture[2]	Vegetables[2]	Tree Farms[3]	Confined Animal Feeding Operation[4]	Low	Moderate	High
Applicant's Proposed Action	91.9	35.7	4.4	2.8	0.9	11.2	20.6	0.2	4.5	1.0	0.0	0.0	16.4	30.5	4.4
Variation S1-B1	*6.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*	*0.0*	*0.0*	*0.0*	*0.4*	*0.0*	*0.0*
Variation S1-B2	*6.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.0*
East of Bombing Range Road	92.3	34	9.2	2.8	3.0	11.8	24.1	0.3	4.9	4.9	2.1	0.0	14.2	31.1	11.3
Applicant's Proposed Action – Southern Route	99.1	36.8	4.1	1.9	0.7	9.1	20.6	0.2	4.3	1.0	0.0	0.0	17.8	28.5	4.1
West of Bombing Range Road – Southern Route	95.6	18.6	3.1	0.2	1.2	6.9	9.9	0.2	4.5	0.7	0.0	0.0	10.4	15.5	3.1
Longhorn	88.2	27.0	9.1	2.8	2.4	11.0	19.8	1.1	4.9	2.9	0.9	3.5	14.5	27.8	9.9
Interstate 84	84.7	17.2	10.2	3.4	1.4	11.2	14.7	0.3	5.0	3.7	0.0	0.1	9.5	21.0	10.2
Variation S1-A1	*18.5*	*7.1*	*1.3*	*0.2*	*0.0*	*3.7*	*5.2*	*0.0*	*0.2*	*0.2*	*0.0*	*0.0*	*0.3*	*7.8*	*1.3*
Variation S1-A2	*18.5*	*2.2*	*0.9*	*0.4*	*0.5*	*3.1*	*1.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.1*	*0.0*	*3.5*	*0.9*
Interstate 84 – Southern Route	93.4	19.1	9.9	3.4	1.2	9.1	15.5	0.3	4.8	3.7	0.0	0.1	11.8	19.8	9.9

Table Notes:

[1]Data source includes cultivated farmland as seen in aerial imagery and classified as dryland or as an irrigation type. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[2]Data source includes U.S. Department of Agriculture CropScape. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[3]Data source is Boardman Tree Farm digitized from aerial imagery. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[4]Data source is Oregon Department of Agriculture confined animal feeding operations and self-reported dairies. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

Table 3-326. Estimated Long-Term Surface Disturbance of Crop Land and Irrigated Farmland in Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Irrigated Farmland (acres)					Crop Type or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	91.9	200	25	16	5	45	63	115	1	25	6	0	0	210
Variation S1-B1	*6.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*	*0*	*0*	*0*	*3*
Variation S1-B2	*6.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*2*
East of Bombing Range Road	92.3	187	51	15	17	82	65	133	2	27	20	12	0	257
Applicant's Proposed Action – Southern Route	99.1	213	24	11	4	39	53	119	1	25	6	0	0	204
West of Bombing Range Road – Southern Route	95.6	128	21	1	8	31	48	68	1	31	5	0	0	153
Longhorn	88.2	154	52	16	14	82	63	113	6	28	17	5	20	251
Interstate 84	84.7	96	57	19	8	84	63	82	2	28	21	0	1	196
Variation S1-A1	*18.5*	*28*	*5*	*1*	*0*	*6*	*15*	*21*	*0*	*1*	*1*	*0*	*0*	*37*
Variation S1-A2	*18.5*	*15*	*6*	*3*	*3*	*12*	*20*	*7*	*0*	*0*	*2*	*0*	*1*	*30*
Interstate 84 – Southern Route	93.4	113	58	20	7	86	54	91	2	29	0	0	1	198

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-327. Estimated Extent of Construction Disturbance of Crop Land and Irrigated Farmland in Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Estimated Construction Disturbance in Irrigated Farmland (acres)					Estimated Construction Disturbance of Crop Types or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/ Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	91.9	743	92	58	19	168	233	428	4	94	21	0	0	780
Variation S1-B1	*6.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*9*	*0*	*0*	*0*	*9*
Variation S1-B2	*6.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6*	*0*	*0*	*0*	*6*
East of Bombing Range Road	92.3	704	190	58	62	311	244	499	6	101	75	43	0	969
Applicant's Proposed Action – Southern Route	99.1	777	87	40	15	141	192	435	4	91	21	0	0	743
West of Bombing Range Road – Southern Route	95.6	411	69	4	27	99	152	219	4	99	15	0	0	491
Longhorn	88.2	572	193	60	51	303	233	420	23	104	61	19	74	935
Interstate 84	84.7	363	215	72	30	317	236	310	6	106	78	0	2	738
Variation S1-A1	*18.5*	*138*	*25*	*4*	*0*	*29*	*72*	*101*	*0*	*4*	*4*	*0*	*0*	*181*
Variation S1-A2	*18.5*	*48*	*20*	*9*	*11*	*40*	*68*	*22*	*0*	*0*	*7*	*0*	*2*	*99*
Interstate 84 – Southern Route	93.4	407	211	72	26	309	194	330	6	102	79	0	2	714

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

In Segment 1, there are three critical groundwater areas, including the Ordnance Basalt, Stage Gulch, and Butter Creek critical groundwater areas. All alternatives in Segment 1 cross these areas. If a piece of land is removed from production, the water rights tied to it would be reduced. Impacts on farmland that is using water rights from these areas could include a reduction of water rights available where permanent B2H Project features exist. This is because water rights are tied to plots of land and no new water rights are being permitted in these areas. Because new water rights are no longer permitted in some of these areas, once lost, they cannot be reobtained. (Refer to Section 3.2.7.2 Regulatory Framework). No data are available for a comparison of alternatives and route variations.

Aerial and ground application of pesticides, in addition to aerial seeding could occur on any cultivated farmland in Segment 1. Impacts include obstruction of flight paths from the tower structures and conductors. There could be increased safety risks to operators navigating around tower structures and conductors. There also could be interruptions in spraying schedules as a result of construction activities, but the Applicant would coordinate with landowners to reduce these impacts. No data are available for a comparison of alternatives and route variations.

Applicant's Proposed Action Alternative

This alternative route crosses 4.4 miles of center pivot irrigation (Table 3-325) (Links 1-1, 1-3, 1-7, 1-27, 1-35, 1-45, 1-51, 1-63). The anticipated level of effects on center pivot irrigation would be high due to the direct, long-term interference with agricultural operations. However, on the Applicant's Proposed Action Alternative, the B2H Project could be micro-sited in these areas to avoid all existing center pivots with one exception. The Applicant's Proposed Action Alternative also crosses 30.5 miles of areas with flood and other mechanized irrigation (Links 1-27, 1-35, 1-45, 1-51, 1-60, 1-61, 1-63) which have moderate impacts due to interference with irrigation infrastructure such as permanent facilities affecting slopes in flood-irrigated agriculture.

The most common crops this alternative route crosses are fallow/idle cropland, field crops, fruit and tree nuts, and vegetables. The B2H Project would result in moderate effects on these resources, due to a direct short-term conflict with agricultural operations and removal of land from crop production.

An estimated 780 acres of construction disturbance and 210 acres of permanent disturbance in cultivated farmland would be required, most of which would occur in areas of dryland farming and field crops. An estimated 168 acres of construction disturbance and 45 acres of permanent disturbance would be required in irrigated farmland. This does not include disturbance associated with the additional action. Selective mitigation measures, such as micro-siting in coordination with the landowner, spanning, and reclaiming all access roads, would reduce these impacts.

No CAFOs or tree farms are crossed by this Applicant's Proposed Action Alternative.

Variations S1-B1 and S1-B2

Variation S1-B1 shares the same alignment as the Applicant's Proposed Action Alternative. Variation S1-B2 is similar to Variation S1-B1, except it crosses 0.1 mile less of grass/pasture.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

As described in Section 2.3.1, it is anticipated that the existing 69-kV transmission line, owned and operated by BPA, would be displaced by the proposed 500-kV transmission line and the 69-kV line would have to be relocated. As part of this additional action, the construction of the 230-kV from Wilson Lane south for 12.2 miles on the east side of Bombing Range Road would affect agricultural operations in this area. Due to height restrictions in the vicinity of the NWSTF Boardman, the tower structures would be no more than 100 feet tall, limiting the spans between towers from 400 to 600 feet. The right-of-way would be 55 feet wide. The current width of uncultivated land along the east of Bombing Range Road between Wilson Lane and Homestead Lane is approximately 50 to 55 feet wide. South of Homestead Lane, there is an existing distribution line that is already occupying this uncultivated land. The existing distribution line along the east side of Bombing Range Road would be buried or underbuilt on the newly constructed 230-kV line. It is expected that the Applicant could repurpose this uncultivated land for the 230-kV right-of-way, having minimal impacts on agriculture.

Design Option 2

Design Option 2 could have all impacts described under Option 1, as well as impacts that could result from the 230-kV transmission line following Bombing Range Road as it turns slightly east at the southeast corner of the NWSTF Boardman. This design option would parallel Bombing Range Road on the east side until it reaches the turn in the road, then it jumps the road and loosely parallels the road on the west side. It would weave through existing agriculture while heading west along the southern portion of the NWSTF Boardman to tie into the 69-kV transmission line. These impacts could include short-term construction disturbances and removing agriculture from production wherever B2H Project facilities are placed.

Design Option 3

Design Option 3 would have all impacts described under Option 2, as well as impacts that could result from the stepdown substation and connection of the 230-kV line to the Longhorn Substation. The existing agriculture impacts could include the long-term disturbance of field crops, vegetable operations, and fallow/idle cropland. Impacts on irrigated farmland could include temporary disturbance of pivot irrigation during construction. Long-term impacts could be expected on spraying and farming operations as operators will be required to work around permanent facilities.

East of Bombing Range Road Alternative

This alternative route would have the greatest impacts on agriculture in Segment 1 (Table 3-325 through Table 3-327); 11.3 miles of high impacts and 31.1 miles of moderate impacts would be expected. High impacts would be associated with long-term interference with agricultural operations such as pivot irrigation (Links 1-1, 1-3, 1-11, 1-25, 1-25, 1-33, 1-45, 1-51, 1-63). On the East of Bombing Range Road Alternative, the B2H Project could be micro-sited to avoid some existing center pivots; 23 existing center pivots would not be avoided. Placing B2H Project facilities in corners could limit the ability of farmers to expand irrigation systems. In addition, some of these pivot corners are already under irrigated crop production, making it impossible to span this irrigated agriculture.

High impacts also are associated with crossing the Boardman Tree Farm (Link 1-25). Under this alternative, the B2H Project would require for safety the removal of approximately 67 acres of trees from the entire right-of-way. Impacts on the tree farm would last until the B2H Project is decommissioned since height of the trees exceeds height restrictions.

Moderate impacts could include removing field crops (Links 1-3, 1-11, 1-25, 1-33, 1-41, 1-43, 1-45, 1-51, 1-53, 1-59, 1-60, 1-61, 1-63, 1-65), vegetable production (Links 1-11, 1-25, 1-33, 1-45), and orchards of fruit and tree nuts (Link 1-25) from production. These impacts would be reduced by spanning, micro-siting, and reclaiming all access roads.

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of irrigated farmland would be greater (143 additional acres of construction disturbance and 37 additional acres of permanent disturbance; refer to Table 3-326 and Table 3-327).

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of cultivated farmland would be greater (189 additional acres of construction disturbance and 47 additional acres of permanent disturbance. Refer to Table 3-326 and Table 3-327)

Same as the Applicant's Proposed Action Alternative, this alternative does not cross any CAFOs.

Applicant's Proposed Action – Southern Route Alternative

This alternative route has 2.3 fewer miles of high and moderate impacts than the Applicant's Proposed Action Alternative. This alternative route crosses 4.1 miles of center pivot irrigation (Links 1-1, 1-3, 1-7, 1-27, 1-35, 1-45, 1-51). The anticipated level of effects on center pivot irrigation would be high due to placement of structures in their operational paths. However, on this alternative route, the B2H Project could be micro-sited in these areas to avoid all existing center pivots with one exception. Placing B2H Project facilities in corners could limit the ability of farmers to expand irrigation systems. In addition, some of these pivot corners are already under irrigated crop production, making it impossible to span this irrigated agriculture and taking land out of production.

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of irrigated farmland would be less (27 fewer acres of construction disturbance and 6 fewer acres of permanent disturbance; refer to Table 3-326 and Table 3-327).

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of cultivated farmland would be less (37 fewer acres of construction disturbance and 6 fewer acres of permanent disturbance. Refer to Table 3-326 and Table 3-327).

Same as the Applicant's Proposed Action Alternative, this alternative does not cross any CAFOs.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The effects on agriculture from the design options would be the same as described for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

This alternative route would have the least impacts on agriculture in Segment 1 (refer to Table 3-325 through Table 3-327). This alternative route crosses 3.1 miles of center pivot irrigation (Links 1-1, 1-3, 1-7, 1-27, 1-35). Under this alternative route, the B2H Project could be micro-sited in these areas to avoid all existing center pivots with one exception. Placing B2H Project facilities in corners could limit the ability of farmers to expand irrigation systems. In addition, some of these pivot corners are already under irrigated crop production, making it impossible to span this irrigated agriculture. If permanent B2H Project facilities are placed in the operational paths of irrigation systems, impacts on irrigated agriculture would be higher. Impacts could include short-term construction disturbances and removing agriculture from production wherever permanent B2H Project facilities are placed.

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of irrigated farmland would be less (69 fewer acres of construction disturbance and 14 fewer acres of permanent disturbance; refer to Table 3-326 and Table 3-327).

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of cultivated farmland would be less (289 fewer acres of construction disturbance and 57 fewer acres of permanent disturbance; refer to Table 3-326 and Table 3-327.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The effects on agriculture from the design options would be the same as described for the Applicant's Proposed Action Alternative.

Longhorn Alternative

The Longhorn Alternative crosses two large concentrated CAFOs (3.5 miles) (Link 1-15). The B2H Project could affect the ability of landowners to comply with NPDES permits or comprehensive nutrient management plans for these CAFOs because long-term surface disturbance of 20 acres of the CAFOs would take land out of use. Thus, the CAFOs would have a smaller area for distributing manure, which could affect the ability of the CAFO to operate at its permitted capacity. The Applicant would work with the landowner to minimize impacts on NPDES requirements.

Infrastructure in pivot corners adjacent to CAFOs would make spanning of pivots along this alternative route more difficult. Additionally, because of the interlocking configuration of center pivots along this alternative route, spans between towers is more than 2,000 feet, and, thus, much taller structures would be required to span the pivots. However, because this area is in the avigation easement of the NWSTF Boardman, it is not likely that structures taller than 100 feet could be used and, thus, the pivots that are interlocked could not be spanned (about 6 pivots) and high impacts would be anticipated.

This alternative also crosses 0.9 mile of tree farms (Link 1-15). The B2H Project would remove 27 acres from production because of required conductor clearances (i.e., precluding tall vegetation growing underneath), resulting in a high level of impacts.

This alternative route crosses the most fruit and tree nut operations (Links 1-9, 1-15), which are perennial crops. Thus, vegetation clearing would have greater effects because of the need to replace vegetation that is not normally planted annually. Also, the amount of time for fruit and tree nuts to mature and bear fruit is much greater than an annual crop.

The nonlinear nature of this alternative route would make it difficult for aerial operators to safely apply pesticides, fertilizers, and seed to fields efficiently and uniformly.

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of irrigated farmland would be greater (135 additional acres of construction disturbance and 37 additional acres of permanent disturbance; refer to Table 3-326 and Table 3-327).

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of cultivated farmland would be greater (155 additional acres of construction disturbance and 41 additional acres of permanent disturbance. Refer to Table 3-326 and Table 3-327).

Interstate 84 Alternative

This alternative route crosses the most center pivot and flood irrigation compared to other alternatives and route variations in Segment 1, including 10.2 miles of high impacts and 21.0 miles of moderate impacts. High impacts include crossing center pivot irrigation (Links 1-5, 1-9, 1-19, 1-23, 1-31, 1-63). All pivots could be spanned. Moderate impacts include crossing flood and other mechanized irrigation (Links 1-23, 1-31, 1-63), as well as CAFOs (Link 1-23), field crops (Links 1-9, 1-19, 1-23, 1-31, 1-49, 1-63, 1-65), fruit and tree nuts (Links 1-9, 1-23), and vegetables (Links 1-9, 1-19, 1-23, 1-31). These impacts include, among others, disruption of farming operations and removing land from production.

This alternative also crosses the corner of one large concentrated CAFO (Link 1-23). However, no long-term disturbance would be expected because the CAFO could be spanned and avoided by tower structures. Temporary disturbance associated with construction could temporarily affect operations.

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of irrigated farmland would be greater (149 additional acres of construction disturbance and 49 additional acres of permanent disturbance; refer to Table 3-326 and Table 3-327).

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of cultivated farmland would be less (42 fewer acres of construction disturbance and 14 fewer acres of permanent disturbance; refer to Table 3-326 and Table 3-327).

Variation S1-A1

This route variation takes the same route as the Interstate 84 Alternative. It would have more than twice the combined moderate and high impacts of Variation S1-A2 mostly as a result of 4.2 more miles of field crops (Link 1-31), that would be crossed by this route variation. Compared to Variation S1-A2, it would require an additional 7 acres of long-term surface disturbance and 80 acres of construction disturbance of crops. However, this variation would require 6 fewer acres of long-term disturbance and 11 fewer acres of construction disturbance in irrigated agriculture compared to Variation S1-A2.

Variation S1-A2

This route variation crosses the corner of a large concentrated CAFO (Link 1-37). This could be spanned, though, and no long-term disturbance is expected of this CAFO. All pivot irrigation (Link 1-37) could be spanned on this alternative. The variation would be colocated with an existing H-frame transmission line, which could make it more difficult for farming operations to continue between structures.

Interstate 84 – Southern Route Alternative

If this alternative is selected, 9.9 miles of high impacts on areas with center pivot irrigation would be anticipated (Links 1-5, 1-9, 1-19, 1-23, 1-31). However, all of these pivots could be spanned, reducing impacts. Also, 19.8 miles of moderate impacts would be expected. Moderate impacts would include crossing a CAFO (Link 1-23), vegetables (Links 1-9, 1-19, 1-23, 1-31), fruit and tree nuts (Links 1-9, 1-23), field crops (Links 1-9, 1-19, 1-23, 1-31, 1-49, 1-65, 1-66, 1-83), other mechanized irrigation (Links 1-23, 1-66), and flood irrigation (Links 1-23, 1-31). Moderate impacts include temporary disruption of crop production and interference with irrigation schedules while construction takes place.

This alternative route crosses the same CAFO crossed by the Interstate 84 Alternative (Link 1-23) and the impacts on that CAFO would be the same.

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of irrigated farmland would be greater (141 additional acres of construction disturbance and 21 additional acres of permanent disturbance; refer to Table 3-326 and Table 3-327).

Compared to the Applicant's Proposed Action Alternative, estimates of construction and permanent disturbance in areas of cultivated farmland would be less (66 fewer acres of construction disturbance and 12 fewer acres of permanent disturbance. Refer to Table 3-326 and Table 3-327).

Conclusions

The East of Bombing Range Road Alternative would have the highest impacts on existing agriculture. Approximately 23 pivots could not be spanned with impacts on all categories of crop types, including tree farms. The Longhorn Alternative would have the next highest impacts, with 6 pivots that could not be spanned, in addition to crossing two CAFOs and a tree farm. The Interstate 84 Alternative and Interstate 84-Southern Route are similar, with the Interstate 84 – Southern Route avoiding more irrigated agriculture. The alternatives that would be least impactful to existing agriculture are the Applicant's Proposed Action, Applicant's Proposed Action – Southern Route, and the West of Bombing Range Road Alternatives, with the West of Bombing Range Road – Southern Route Alternative avoiding the most existing agriculture in Segment 1 of any alternative.

Important Farmland, High-value Soils, and Conservation Reserve Program Lands

The results of the analysis to assess the impacts of the B2H Project on important farmland, high-value soils, and CRP lands are presented in Table 3-328 through Table 3-330. Table 3-328 presents the results related to important and high-value soils. Table 3-329 presents the estimated long-term surface disturbance associated with each alternative and route variations. Table 3-330 presents estimates for

the extent of construction disturbance on important farmland and high-value soils to be required during construction for the alternatives and route variations in Segment 1. Finally, Table 3-331 presents the extent of CRP lands that would be crossed by the right-of-way of the B2H Project. Refer also to MV-17.

Table 3-328. Important Farmland and High-Value Soils in Segment 1—Morrow-Umatilla (miles crossed)

Alternative Route	Total Length (miles)	Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	High-value Soils[1,3]
Applicant's Proposed Action	91.9	28.8	38.9	30.4
Variation S1-B1	*6.4*	*0.0*	*0.0*	*0.0*
Variation S1-B2	*6.4*	*0.0*	*0.0*	*0.0*
East of Bombing Range Road	92.3	29.9	38.4	31.6
Applicant's Proposed Action – Southern Route	99.1	24.9	46.3	25.9
West of Bombing Range Road – Southern Route	95.6	21.1	36.9	21.5
Longhorn	88.2	22.2	39.1	23.4
Interstate 84	84.7	28.1	23.3	30.1
Variation S1-A1	*18.5*	*14.3*	*2.6*	*14.7*
Variation S1-A2	*18.5*	*4.3*	*9.3*	*5.0*
Interstate 84 – Southern Route	93.4	25.2	31.3	26.6

Table Notes:

[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data

[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained

[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Table 3-329. Estimated Long-Term Surface Disturbance of Important Farmland and High-Value Soils in Segment 1—Morrow-Umatilla (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	91.9	161	218	170
Variation S1-B1	*6.4*	*0*	*0*	*0*
Variation S1-B2	*6.4*	*0*	*0*	*0*
East of Bombing Range Road	92.3	164	211	174
Applicant's Proposed Action – Southern Route	99.1	144	269	150
West of Bombing Range Road – Southern Route	95.6	146	255	148
Longhorn	88.2	127	223	133
Interstate 84	84.7	157	130	169
Variation S1-A1	*18.5*	*57*	*10*	*59*
Variation S1-A2	*18.5*	*28*	*61*	*33*
Interstate 84 – Southern Route	93.4	149	185	157

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-330. Estimated Extent of Construction Disturbance of Important Farmland and High-Value Soils in Segment 1—Morrow-Umatilla (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	91.9	599	809	632
Variation S1-B1	*6.4*	*0*	*0*	*0*
Variation S1-B2	*6.4*	*0*	*0*	*0*
East of Bombing Range Road	92.3	619	795	654
Applicant's Proposed Action – Southern Route	99.1	525	977	546
West of Bombing Range Road – Southern Route	95.6	466	815	475
Longhorn	88.2	471	829	496
Interstate 84	84.7	593	492	635
Variation S1-A1	*18.5*	*279*	*51*	*287*
Variation S1-A2	*18.5*	*95*	*205*	*110*
Interstate 84 – Southern Route	93.4	537	667	567

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-331. Conservation Reserve Program Lands Crossed by the Right-of-Way in Segment 1—Morrow-Umatilla		
Alternative Route	**Total Length (miles)**	**Lands Enrolled in Conservation Reserve Programs (acres)**
Applicant's Proposed Action	91.9	355
Variation S1-B1	*6.4*	*0*
Variation S1-B2	*6.4*	*0*
East of Bombing Range Road	92.3	355
Applicant's Proposed Action – Southern Route	99.1	314
West of Bombing Range Road – Southern Route	95.6	144
Longhorn	88.2	355
Interstate 84	84.7	253
Variation S1-A1	*18.5*	*25*
Variation S1-A2	*18.5*	*62*
Interstate 84 – Southern Route	93.4	235
Table Note: The Farm Service Agency estimated the number of acres of Conservation Reserve Program lands crossed by the B2H Project 250-foot right-of-way. Conservation Reserve Program acres may be slightly over-reported. Acres have been rounded to the nearest whole number.		

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would require an estimated construction disturbance of 599 acres of prime farmland if irrigated, 809 acres of farmland of statewide importance, and 632 acres of high-value soils. This alternative route would require an estimated long-term disturbance of 161 acres of prime farmland if irrigated, 218 acres of farmland of statewide importance, and 170 acres of high-value soils. These impacts would occur generally on Links 1-27, 1-35, 1-43, 1-45, 1-50, 1-51, 1-53, 1-59, 1-60, 1-61, 1-63, 1-65, and 1-71. Vegetation clearing would increase the potential for soil loss due to erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

In Segment 1, this alternative route crosses the most land (355 acres) enrolled in CRPs (although the same extent as East of Bombing Range Road Alternative and Longhorn Alternative). Areas where construction disturbance occurs would be reclaimed and the CRP lands would remain under contract. However, acreages of footprints for permanent B2H Project facilities would be calculated and these lands would be removed from contracts, reducing annual payments to landowners.

Variations S1-B1 and S1-B2

Variation S1-B1 follows a portion of the same alignment as the Applicant's Proposed Action Alternative. Neither variation crosses any important farmland, high-value soils or lands in CRP contracts.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

If the Applicant's Proposed Action Alternative were selected for construction, transmission lines around the Bombing Range Road would need to be reconfigured. Refer to the Project Description in Chapter 2

for more details. As part of this additional action, the construction of the 230-kV from Homestead Lane south for 8.5 miles on the east side of Bombing Range Road could affect prime farmland if irrigated, farmland of statewide importance, and high-value soils in this area. Due to height restrictions in the vicinity of the NWSTF Boardman, the tower structures would be 70 feet tall, limiting the spans between towers from 400 to 600 feet. However, because monopole tower structures would be used for this portion of the new 69-kV transmission line, the extent of important farmland and high-value soils potentially affected (e.g., converted to nonagricultural uses) would be minimized. Of the three options, this option would have the least effects on important farmland and high-value soils.

Design Option 2

This design option could include the impacts from Option 1. In addition, this option would require the construction of the 230-kV line on the east side of Bombing Range Road south of where the proposed B2H Project would cross the Bombing Range Road and along the south boundary of the NWSTF Boardman. It would cross important farmland and high-value soils. Effects would be potential for soil loss due to erosion and mixing of high-value topsoil with sub soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

Design Option 3

This design option could include the impacts from Options 1 and 2. In addition, a stepdown substation south of the NWSTF Boardman would be required in addition to extending the 230-kV line across Interstate 84 to the Longhorn Substation. The location planned for the stepdown substation contains important farmland and high-value soils. Of the three options, this option would have the highest impacts on important farmland and high-value soils. Effects would be potential for soil loss due to erosion and mixing of high-value topsoil with sub soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

East of Bombing Range Road Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an additional estimated construction disturbance of 20 acres of prime farmland if irrigated, 14 fewer acres of farmland of statewide importance, and 22 more acres of high-value soils. This alternative route would require an additional estimated long-term disturbance of 3 acres of prime farmland if irrigated, 7 fewer acres of farmland of statewide importance, and 4 more acres of high-value soils. These impacts would occur generally on Links 1-25, 1-33, 1-41, 1-43, 1-45, 1-50, 1-51, 1-53, 1-59, 1-60, 1-61, 1-63, 1-65, and 1-71. Vegetation clearing would increase the potential for soil loss due to erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

The effects on CRP lands would be the same as described for the Applicant's Proposed Action Alternative (and the Longhorn Alternative).

Applicant's Proposed Action – Southern Route Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 74 fewer acres of prime farmland if irrigated, 168 additional acres of farmland of statewide importance, and 86 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 17 fewer acres of prime farmland if irrigated, 51 additional acres of farmland of statewide importance, and 20 fewer acres of high-value soils. These impacts would occur generally on Links 1-3, 1-27, 1-35, 1-43, 1-45, 1-51, 1-53, 1-59, 1-60, 1-65, 1-66, 1-71, 1-79, and 1-83. Vegetation clearing would increase the potential for soil loss due to compaction, erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

Fewer CRP lands would be affected by this alternative than the Applicant's Proposed Action Alternative (41 acres, refer to Table 3-331).

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The effects on agriculture from the design options would be the same as described for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

As presented in Table 3-328 through Table 3-330, this alternative route crosses the least prime farmland if irrigated and high-value soils of any alternative in Segment 1. Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 133 fewer acres of prime farmland if irrigated, 6 more acres of farmland of statewide importance, and 157 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 15 fewer acres of prime farmland if irrigated, 37 more acres of farmland of statewide importance, and 22 fewer acres of high-value soils. These impacts would occur generally on Links 1-27, 1-35, 1-36, 1-38, 1-62, 1-64, 1-65, 1-66, and 1-71. Vegetation clearing would increase the potential for soil loss due to compaction, erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

This route crosses the fewest CRP acres of any route in Segment 1 (211 fewer acres than the Applicant's Proposed Action Alternative).

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The effects on agriculture from the design options would be the same as described for the Applicant's Proposed Action Alternative.

Longhorn Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 128 fewer acres of prime farmland if irrigated, 20 additional acres of farmland of statewide importance, and 136 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 34 fewer acres of prime farmland if irrigated, 5 additional acres of farmland of statewide importance, and 37 fewer acres of high-value soils. These impacts would occur generally on Links 1-15, 1-45, 1-50, 1-51, 1-53, 1-59, 1-60, 1-61, 1-63, 1-65, and 1-71. Vegetation clearing would increase the potential for soil loss due to compaction, erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

This alternative route would affect the same CRP lands as the Applicant's Proposed Action Alternative (355 acres, refer to Table 3-331).

Interstate 84 Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 6 fewer acres of prime farmland if irrigated, 317 fewer acres of farmland of statewide importance, and 3 more acres of high-value soils. This alternative route would require an estimated long-term disturbance of 4 fewer acres of prime farmland if irrigated, 88 fewer acres of farmland of statewide importance, and 1 fewer acre of high-value soils. These impacts would occur generally on Links 1-23, 1-31, 1-39, 1-49, 1-50, 1-63, 1-65 and 1-71. Vegetation clearing would increase the potential for soil loss due to compaction, erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

Fewer CRP lands would be affected by this alternative than the Applicant's Proposed Action Alternative (102 acres, refer to Table 3-331).

Variations S1-A1 and S1-A2

Variation S1-A1 takes the same route as the Interstate 84 Alternative. Compared to Variation S1-A2, this alternative route would require an estimated construction disturbance of 184 additional acres of prime farmland if irrigated, 154 fewer acres of farmland of statewide importance, and 177 additional acres of high-value soils. This alternative route would require an estimated long-term disturbance of 29 additional acres of prime farmland if irrigated, 51 fewer acres of farmland of statewide importance, and 26 additional acres of high-value soils. Impacts associated with Variation S1-A1 would occur on Link 1-31, and impacts associated with Variation S1-A2 would occur on Link 1-37. Vegetation clearing would increase the potential for soil loss due to compaction, erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

Variation S1-A1 crosses 37 fewer CRP acres than Variation S1-A2.

Interstate 84 – Southern Route Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 62 fewer acres of prime farmland if irrigated, 142 fewer acres of farmland of statewide importance, and 65 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 12 fewer acres of prime farmland if irrigated, 33 fewer acres of farmland of statewide importance, and 13 fewer acres of high-value soils. These impacts would occur generally on Links 1-23, 1-31, 1-39, 1-49, 1-50, 1-65, 1-66, 1-71, 1-81, and 1-83. Vegetation clearing would increase the potential for soil loss due to compaction, erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

Fewer CRP lands would be affected by this alternative than the Applicant's Proposed Action Alternative (120 acres, refer to Table 3-331).

Conclusions

The two alternatives in Segment 1 with the least impacts on important farmland, high-value soils, and lands enrolled in CRPs are the West of Bombing Range Road – Southern Route Alternative, the Interstate 84 Alternative, and the Interstate 84 – Southern Route Alternative, as these alternatives cross the least miles of prime farmland if irrigated, farmland of statewide importance, high-value soils, and CRP lands. In contrast, the Applicant's Proposed Action Alternative, the East of Bombing Range Road Alternative, and the Applicant's Proposed Action – Southern Route Alternative cross the most miles of soils important to agriculture and lands under CRP contracts.

Livestock Grazing

This section discloses impacts on livestock grazing in Segment 1 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on livestock grazing are presented in Table 3-332. The data used to generate these results are displayed on MV-18. Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Estimated affected AUMs are based off of long-term disturbance on federal grazing allotments. Long-term impacts on AUMs would occur throughout all allotments crossed by a particular segment.

Table 3-332. Estimated Extent of Disturbance of Grazing Allotments in Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Applicant's Proposed Action	91.9	4.6	23,472	23,472	2,275	96	26	<1
Variation S1-B1	*6.4*	*4.6*	*23,472*	*23,472*	*2,275*	*102*	*35*	*1*
Variation S1-B2	*6.4*	*3.7*	*44,678*	*32,258*	*4,843*	*79*	*26*	*3*
East of Bombing Range Road	92.3	4.6	23,472	23,472	2,275	95	25	<1
Applicant's Proposed Action – Southern Route	99.1	4.6	23,472	23,472	2,275	97	27	<1
West of Bombing Range Road – Southern Route	95.6	4.6	23,472	23,472	2,275	102	32	<1
Longhorn	88.2	4.6	23,472	23,472	2,275	98	26	<1
Interstate 84	84.7	6.5	34,736	34,736	2,287	137	36	<1
Variation S1-A1	*18.5*	*0.0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S1-A2	*18.5*	*0.0*	*0*	*0*	*0*	*0*	*0*	*0*
Interstate 84 – Southern Route	93.4	6.5	34,736	34,736	2,287	138	38	<1

Table Notes:
[1]Data source is U.S. Forest Service and Bureau of Land Management grazing allotments datasets.
[2]Allotment miles crossed by the B2H Project centerline.
[3]Active animal unit months of allotments crossed by the B2H Project 250-foot right-of-way.
[4]Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction and long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing, including estimated AUMs affected. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description. Actual AUMs affected would be calculated and addressed during the permit renewal process.

Applicant's Proposed Action Alternative

As presented in Table 3-332, this alternative route crosses the same number of miles of allotments as several of the other alternatives (4.6 miles) (Link 1-77). Construction disturbance would affect less than 1 percent of the surface area of the allotments, which is expected to affect less than 1 AUM of the forage available to livestock in the allotment in the long term.

Variations S1-B1 and S1-B2

Variation S1-B1 follows the same route as the Applicant's Proposed Action and crosses an additional 0.9 mile of allotments over Variation S1-B2. This would result in an estimated 9 additional acres of long-term surface disturbance and an additional 23 acres of construction disturbance. However, in both

route variations, construction disturbance would affect less than 1 percent of the surface area of the allotment, which is expected to affect 1 AUM of the forage available to livestock in the allotment for the long term for Variation S1-B1 and 3 AUMs for Variation S1-B2. Impacts for Variation S1-B1 would occur on Link 1-77, and impacts for Variation S1-B2 would occur on Link 1-75.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1,2, and 3

There are no grazing allotments in the areas affected by the additional action, and, thus, no identifiable impacts on grazing allotments are expected.

East of Bombing Range Road Alternative

As presented in Table 3-332, this alternative route crosses the same number of miles as the Applicant's Proposed Action Alternative, the Applicant's Proposed Action-Southern Route Alternative, and the Longhorn Alternative (4.6 miles) (Link 1-77). Construction and long-term disturbance would be slightly lower in this alternative than the Applicant's Proposed Action Alternative.

Applicant's Proposed Action – Southern Route Alternative

As presented in Table 3-332, this alternative route crosses the same number of miles as the Applicant's Proposed Action Alternative, the East of Bombing Range Road Alternative, and the Longhorn Alternative (4.6 miles) (Link 1-77). Construction and long-term disturbance would be slightly higher in this alternative than the Applicant's Proposed Action Alternative. Less than 1 percent of the surface area of the allotments would have construction disturbance, which is expected to affect less than 1 AUM of the forage available to livestock in the allotments for the long term.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

There are no grazing allotments in the areas affected by the additional action, and, thus, no identifiable impacts on grazing allotments are expected.

West of Bombing Range Road – Southern Route Alternative

As presented in Table 3-332, this alternative route crosses the same number of miles as the Applicant's Proposed Action Alternative, the Applicant's Proposed Action-Southern Route Alternative, and the Longhorn Alternative (4.6 miles) (Link 1-77). Construction and long-term disturbance would be slightly higher in this alternative than the Applicant's Proposed Action Alternative. Less than 1 percent of the surface area of the allotments would have construction disturbance, which is expected to affect less than 1 AUM of the forage available to livestock in the allotments for the long term.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

There are no grazing allotments in the areas affected by the additional action, and, thus, no identifiable impacts on grazing allotments are expected.

Longhorn Alternative

As presented in Table 3-332, this alternative route crosses the same number of miles as the Applicant's Proposed Action Alternative, the Applicant's Proposed Action-Southern Route Alternative, and the East of Bombing Range Road Alternative (4.6 miles) (Link 1-77). Construction disturbance would be slightly higher and long-term disturbance would be the same in this alternative as the Applicant's Proposed Action Alternative.

Interstate 84 Alternative

As presented in Table 3-332, this alternative route crosses grazing allotments for 6.5 miles (Links 1-23, 1-77), the most of any alternative, but the same as Interstate 84 – Southern Route. However, because of terrain, this alternative route would have slightly less long-term surface disturbance and construction disturbance than the Interstate 84 – Southern Route Alternative. Less than 1 percent of the surface area of the allotments would have construction disturbance, which is expected to affect less than 1 AUM of the forage available to livestock in the allotments for the long term.

Variations S1-A1 and S1-A2

These variations do not cross federal grazing allotments and, thus, no identifiable impacts are expected.

Interstate 84 – Southern Route Alternative

As presented in Table 3-332, this alternative route crosses grazing allotments for 6.5 miles (Links 1-23, 1-77), the most of any alternative, but the same as Interstate 84 Alternative. However, because of terrain, this alternative route would have the most long-term surface disturbance and construction disturbance of all alternatives. Less than 1 percent of the surface area of the allotments would have construction disturbance, which is expected to affect less than 1 AUM of the forage available to livestock in the allotments for the long term.

Conclusions

The alternative routes cross a similar number of miles of grazing allotments in Segment 1, with no alternative affecting more than 1 AUM. However Variation S1-B2 would affect 3 AUMs.

SEGMENT 2—BLUE MOUNTAINS

Existing Agriculture

This section discloses impacts on existing agriculture in Segment 2 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on existing agriculture are presented in Table 3-333. The data used to generate these results are displayed on MV-16.

Table 3-334 presents the estimated long-term surface disturbance associated with each alternative and route variation.

Table 3-335 presents estimated construction disturbance for the alternatives and route variations in Segment 2. No irrigated agriculture is crossed by any of the alternative routes or route variations in Segment 2.

Table 3-333. Inventory Data and Residual Impacts for Crop Types and Irrigated Farmland in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Irrigation Type (miles crossed)				Crop Type or Confined Animal Feeding Operation (miles crossed)							Overall Residual Impacts (miles crossed)		
		Dryland[1]	Center Pivot Irrigation[1]	Flood Irrigation[1]	Other Mechanized Irrigation[1]	Fallow/Idle Cropland[2]	Field Crops[2]	Fruit and Tree Nuts[2]	Grass/ Pasture[2]	Vegetables[2]	Tree Farms[3]	Confined Animal Feeding Operation[4]	Low	Moderate	High
Applicant's Proposed Action	33.8	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.1	0.0	0.0	0.0	0.1	0.8	0.0
Variation S2-A1	*2.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-A2	*2.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-B1	*3.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*
Variation S2-C2	*8.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*
Variation S2-F1	*12.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.6*	*0.0*
Variation S2-F2	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*
Glass Hill	33.7	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.1	0.0	0.0	0.0	0.1	0.6	0.0
Variation S2-D1	*4.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-D2	*4.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Mill Creek	34.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.2	0.0	0.0	0.0	0.2	0.8	0.0

Table Notes:

[1]Data source includes cultivated farmland as seen in aerial imagery and classified as dryland or as an irrigation type. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[2]Data source includes U.S. Department of Agriculture CropScape. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[3]Data source is Boardman Tree Farm digitized from aerial imagery. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[4]Data source is Oregon Department of Agriculture confined animal feeding operations and self-reported dairies. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

Table 3-334. Estimated Long-Term Surface Disturbance of Crop Land and Irrigated Farmland in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Estimated Disturbance in Irrigated Farmland (acres)					Estimated Disturbance by Crop Type or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	33.8	0	0	0	0	0	0	6	0	1	0	0	0	7
Variation S2-A1	*2.8*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-A2	*2.9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-B1	*3.7*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*
Variation S2-B2	*3.8*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-C1	*9.3*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*
Variation S2-C2	*8.8*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*1*
Variation S2-E1	*2.3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-E2	*2.6*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*
Variation S2-F1	*12.1*	*0*	*0*	*0*	*0*	*0*	*0*	*4*	*0*	*0*	*0*	*0*	*0*	*4*
Variation S2-F2	*12.2*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*
Glass Hill	33.7	0	0	0	0	0	0	4	0	1	0	0	0	5
Variation S2-D1	*4.3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-D2	*4.1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Mill Creek	34.0	0	0	0	0	0	0	6	0	2	0	0	0	8

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-335. Estimated Extent of Construction Disturbance of Crop Land and Irrigated Farmland in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Estimated Construction Disturbance in Irrigated Farmland (acres)					Estimated Construction Disturbance of Crop Types or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/ Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	33.8	0	0	0	0	0	0	18	0	2	0	0	0	20
Variation S2-A1	*2.8*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-A2	*2.9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-B1	*3.7*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*2*
Variation S2-B2	*3.8*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-C1	*9.3*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*2*
Variation S2-C2	*8.8*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*2*
Variation S2-E1	*2.3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-E2	*2.6*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*2*
Variation S2-F1	*12.1*	*0*	*0*	*0*	*0*	*0*	*0*	*13*	*0*	*0*	*0*	*0*	*0*	*13*
Variation S2-F2	*12.2*	*0*	*0*	*0*	*0*	*0*	*0*	*4*	*0*	*0*	*0*	*0*	*0*	*4*
Glass Hill	33.7	0	0	0	0	0	0	13	0	2	0	0	0	15
Variation S2-D1	*4.3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-D2	*4.1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Mill Creek	34.0	0	0	0	0	0	0	18	0	5	0	0	0	23

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Aerial and ground application of pesticides, in addition to aerial seeding could occur on any cultivated farmland in Segment 2. Impacts include obstruction of flight paths from the tower structures and conductors. There could be increased safety risks to operators navigating around tower structures and conductors. There also could be interruptions in spraying schedules as a result of construction activities, but the Applicant would coordinate with landowners to reduce these impacts. No data are available for a comparison of alternatives and route variations.

Applicant's Proposed Action Alternative

This alternative has 0.8 mile of moderate impacts due to crossing field crops (Links 2-35, 2-45, 2-75, 2-85). Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. They would be mitigated using micro-siting and coordination with the landowner. Long-term disturbance is estimated to be 6 acres of field crops and construction disturbance is estimated to be 18 acres of field crops.

Variations S2-A1 and S2-A2

These route variations do not cross moderate or high impacts on existing agriculture.

Variations S2-B1 and S2-B2

Variation S2-B1 is part of the same route as the Applicant's Proposed Action Alternative. Variation S2-B1 has 0.1 more miles of moderate impacts than Variation S2-B2 due to crossing field crops (Link 2-35), all of which could be spanned. Compared to Variation S2-B2, Variation S2-B1 would require an estimated long-term disturbance of 1 more acre of field crops and construction disturbance of 2 more acres of field crops.

Variations S2-C1 and S2-C2

Variation S2-C1 is part of the same route as the Applicant's Proposed Action Alternative. Variation S2-1 has 0.1 more miles of moderate impacts than Variation S2-C2 due to crossing field crops (Link 2-45), all of which could be spanned. Compared to Variation S2-C2, Variation S2-C1 would require an estimated long-term disturbance of 1 more acre of field crops and construction disturbance of 2 more acres of field crops.

Variations S2-E1 and S2-E2

Variation S2-E1 is part of the same route as the Applicant's Proposed Action Alternative. Variation S2-E2 has 0.1 more miles of moderate impacts than Variation S2-E1 due to crossing field crops (Link 2-55), all of which could be spanned. Compared to Variation S2-E1, Variation S2-E2 would require an estimated long-term disturbance of 1 more acre of field crops and construction disturbance of 2 more acres of field crops.

Variations S2-F1 and S2-F2

Variation S2-F1 is part of the same route as the Applicant's Proposed Action Alternative. Variation S2-F1 has 0.4 more miles of moderate impacts than Variation S2-F2 due to crossing field crops (Links 2-75, 2-85), all of which could be spanned. Compared to Variation S2-F2, Variation S2-F1 would

require an estimated long-term disturbance of 3 more acres of field crops and construction disturbance of 9 more acres of field crops.

Glass Hill Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have 0.2 fewer miles of moderate impacts due to crossing field crops (Links 2-75, 2-85). Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. These impacts would be mitigated using micro-siting, spanning, and coordination with the landowner. Long-term disturbance is estimated to be 2 fewer acres of field crops than the Applicant's Proposed Action Alternative. Construction disturbance is estimated to be 5 fewer acres of field crops than the Applicant's Proposed Action Alternative.

Variations S2-D1 and S2-D2

These route variations do not cross moderate or high impacts on existing agriculture.

Mill Creek Alternative

The Mill Creek Alternative would have the same impacts as the Applicant's Proposed Action Alternative. These impacts would generally occur on Links 2-12, 2-63, 2-70, and 2-80.

Conclusions

All alternative routes and variations in Segment 2 do not cross irrigated agriculture. The CropScape dataset does identify some grass/pasture and field crops being crossed by each alternative, with all alternatives similarly affecting existing agriculture in Segment 2.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

This section discloses impacts on important farmland, high-value soils, and CRP lands in Segment 2 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on important farmland and high-value soils are presented in Table 3-336 through Table 3-338. No CRP lands would be crossed by any alternative or route variation in Segment 2. Refer also to MV-17.

Table 3-336. Important Farmland and High-Value Soils in Segment 2—Blue Mountains (miles)

Alternative Route	Total Length (miles)	Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	High-value Soils[1,3]
Applicant's Proposed Action	33.8	2.4	18.6	2.6
Variation S2-A1	*2.8*	*0.0*	*0.3*	*0.0*
Variation S2-A2	*2.9*	*0.0*	*0.3*	*0.0*
Variation S2-B1	*3.7*	*0.0*	*2.2*	*0.0*
Variation S2-B2	*3.8*	*0.0*	*2.9*	*0.1*
Variation S2-C1	*9.3*	*0.0*	*7.8*	*0.0*
Variation S2-C2	*8.8*	*0.0*	*6.5*	*0.0*
Variation S2-E1	*2.3*	*0.0*	*1.5*	*0.0*
Variation S2-E2	*2.6*	*0.0*	*1.4*	*0.0*

Table 3-336. Important Farmland and High-Value Soils in Segment 2—Blue Mountains (miles)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated[1,2]**	**Farmland of Statewide Importance[1]**	**High-value Soils[1,3]**
Variation S2-F1	*12.1*	*2.4*	*4.3*	*2.6*
Variation S2-F2	*12.2*	*1.5*	*3.0*	*1.8*
Glass Hill	33.7	2.4	18.1	2.6
Variation S2-D1	*4.3*	*0.0*	*3.5*	*0.0*
Variation S2-D2	*4.1*	*0.0*	*3.3*	*0.0*
Mill Creek	34.0	1.6	15.3	2.4

Table Notes:
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Table 3-337. Estimated Long-term Surface Disturbance of Important Farmland and High-Value Soils in Segment 2—Blue Mountains (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	33.8	17	134	19
Variation S2-A1	*2.8*	*0*	*2*	*0*
Variation S2-A2	*2.9*	*0*	*2*	*0*
Variation S2-B1	*3.7*	*0*	*17*	*0*
Variation S2-B2	*3.8*	*0*	*20*	*1*
Variation S2-C1	*9.3*	*0*	*65*	*0*
Variation S2-C2	*8.8*	*0*	*41*	*0*
Variation S2-E1	*2.3*	*0*	*11*	*0*
Variation S2-E2	*2.6*	*0*	*10*	*0*
Variation S2-F1	*12.1*	*15*	*26*	*16*
Variation S2-F2	*12.2*	*10*	*19*	*11*
Glass Hill	33.7	16	124	18
Variation S2-D1	*4.3*	*0*	*34*	*0*
Variation S2-D2	*4.1*	*0*	*28*	*0*
Mill Creek	34.0	12	117	18

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-338. Estimated Extent of Construction Disturbance of Important Farmland and High-Value Soils in Segment 2—Blue Mountains (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	33.8	54	420	59
Variation S2-A1	*2.8*	*0*	*6*	*0*
Variation S2-A2	*2.9*	*0*	*6*	*0*
Variation S2-B1	*3.7*	*0*	*50*	*0*
Variation S2-B2	*3.8*	*0*	*65*	*2*
Variation S2-C1	*9.3*	*0*	*186*	*0*
Variation S2-C2	*8.8*	*0*	*141*	*0*
Variation S2-E1	*2.3*	*0*	*34*	*0*
Variation S2-E2	*2.6*	*0*	*31*	*0*
Variation S2-F1	*12.1*	*52*	*92*	*56*
Variation S2-F2	*12.2*	*33*	*65*	*39*
Glass Hill	33.7	54	404	58
Variation S2-D1	*4.3*	*0*	*89*	*0*
Variation S2-D2	*4.1*	*0*	*79*	*0*
Mill Creek	34.0	37	353	55

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Applicant's Proposed Action Alternative

This alternative route would require an estimated construction disturbance of 54 acres of prime farmland if irrigated, 420 acres of farmland of statewide importance, and 59 acres of high-value soils. This alternative route would require an estimated long-term disturbance of 17 acres of prime farmland if irrigated, 134 acres of farmland of statewide importance, and 19 acres of high-value soils. These impacts would occur generally on Links 2-5, 2-15, 2-20, 2-35, 2-45, 2-47, 2-50, 2-52, 2-60, 2-75, 2-85, and 2-95.

Variations S2-A1 and S2-A2

These variations would have the same disturbance. Impacts associated with Variation S2-A1 would occur on Link 2-5, and impacts associated with Variation S2-A2 would occur on Link 2-7.

Variations S2-B1 and S2-B2

Variation S2-B1 takes the same route as the Applicant's Proposed Action Alternative. Neither variation crosses prime farmland if irrigated. Variation S2-B1 would require an estimated construction disturbance of 15 fewer acres of farmland of statewide importance, and 2 fewer acres of high-value soils. Variation S2-B1 would require an estimated long-term disturbance of 3 fewer acres of farmland of statewide importance, and 1 fewer acre of high-value soils. Impacts associated with Variation S2-B1 would occur on Link 2-35, and impacts associated with Variation S2-B2 would occur on Link 2-25.

Variations S2-C1 and S2-C2

Variation S2-C1 takes the same route as the Applicant's Proposed Action Alternative. Neither variation crosses prime farmland if irrigated or high-value soils. Variation S2-C1 would require an estimated construction disturbance of 45 more acres of farmland of statewide importance and an estimated long-term disturbance of 24 more acres of farmland of statewide importance. Impacts associated with Variation S2-C1 would occur on Links 2-45, 2-47, and 2-50, and impacts associated with Variation S2-C2 would occur on Link 2-48.

Variations S2-E1 and S2-E2

Variation S2-E1 takes the same route as the Applicant's Proposed Action Alternative. Neither variation crosses prime farmland if irrigated or high-value soils. Variation S2- E2 would require an estimated construction disturbance of 3 fewer acre of farmland of statewide importance and an estimated long-term disturbance of 1 fewer acre of farmland of statewide importance. Impacts associated with Variation S2-E1 would occur on Link 2-60, and impacts associated with Variation S2-E2 would occur on Link 2-55.

Variations S2-F1 and S2-F2

Variation S2-F1 takes the same route as the Applicant's Proposed Action Alternative. Variation S2-F1 would require an estimated construction disturbance of 19 more acres of prime farmland if irrigated, 27 more acres of farmland of statewide importance, and 17 more acres of high-value soils. Variation S2-F1 would require an estimated long-term disturbance of 5 more acres of prime farmland if irrigated, 7 more acres of farmland of statewide importance, and 5 more acres of high-value soils. Impacts associated with Variation S2-F1 would occur on Links 2-75, 2-85, and 2-95, and impacts associated with Variation S2-F2 would occur on Links 2-70, 2-80, and 2-90.

Glass Hill Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have the same estimated construction disturbance of prime farmland if irrigated, 16 fewer acres of farmland of statewide importance, and 1 fewer acre of high-value soils. This alternative route would require an estimated long-term disturbance of 1 fewer acre of prime farmland if irrigated, 10 fewer acres of farmland of statewide importance, and 1 fewer acre of high-value soils. These impacts would occur generally on Links 2-5, 2-15, 2-20, 2-40, 2-42, 2-47, 2-50, 2-52, 2-60, 2-75, 2-85, and 2-95.

Variations S2-D1 and S2-D2

Variation S2-D1 takes the same route as the Applicant's Proposed Action Alternative. Neither variation crosses prime farmland if irrigated or high-value soils. Variation S2-D1 would require an estimated construction disturbance of 10 more acres of farmland of statewide importance and an estimated long-term disturbance of 6 more acres of farmland of statewide importance. Impacts associated with Variation S2-D1 would occur on Links 2-42 and 2-47, and impacts associated with Variation S2-F2 would occur on Link 2-46.

Mill Creek Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 17 fewer acres of prime farmland if irrigated, 67 fewer acres of farmland of statewide importance, and 4 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 5 fewer acres of prime farmland if irrigated, 17 fewer acres of farmland of statewide importance, and 1 fewer acre of high-value soils. This alternative route would have the least impacts on important farmland in Segment 2. These impacts would occur generally on Links 2-7, 2-10, 2-12, 2-63, 2-70, 2-80, and 2-90.

Conclusions

In Segment 2, the Applicant's Proposed Action Alternative and the Glass Hill Alternative would have similar impacts on important farmland and high-value soils, while the Mill Creek Alternative would have the least impacts. No CRP acres would be crossed by the B2H Project in this segment.

Livestock Grazing

This section discloses impacts on livestock grazing in Segment 2 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on livestock grazing are presented in Table 3-339. The data used to generate these results are displayed on MV-18. Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Estimated affected AUMs are based off of long-term disturbance on federal grazing allotments. Long-term impacts on AUMs would occur throughout all allotments crossed by a particular segment.

Table 3-339. Estimated Extent of Disturbance of Grazing Allotments in Segment 2—Morrow-Umatilla

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Applicant's Proposed Action	33.8	11.5	68,620	68,378	2,396	260	83	1
Variation S2-A1	*2.8*	*1.3*	*22,111*	*22,111*	*2,275*	*27*	*7*	<1
Variation S2-A2	*2.9*	*2.5*	*22,111*	*22,111*	*2,275*	*52*	*13*	*1*
Variation S2-B1	*3.7*	*0.8*	*2,401*	*2,401*	*22*	*18*	*6*	<1
Variation S2-B2	*3.8*	*0.0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-C1	*9.3*	*2.0*	*11,097*	*10,855*	*34*	*48*	*17*	*0*
Variation S2-C2	*8.8*	*2.9*	*11,097*	*11,097*	*34*	*63*	*18*	*0*
Variation S2-E1	*2.3*	*0.9*	*4,557*	*4,557*	*12*	*20*	*7*	*0*
Variation S2-E2	*2.6*	*1.4*	*4,557*	*4,557*	*12*	*31*	*10*	*0*
Variation S2-F1	*12.1*	*4.4*	*33,012*	*33,012*	*65*	*95*	*27*	*0*
Variation S2-F2	*12.2*	*5.7*	*33,012*	*33,012*	*65*	*124*	*36*	*0*

Table 3-339. Estimated Extent of Disturbance of Grazing Allotments in Segment 2—Morrow-Umatilla

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Glass Hill	33.7	12.4	68,620	68,378	2,396	277	85	1
Variation S2-D1	*4.3*	*0.0*	*0*	*0*	*0*	*0*	*0*	*0*
Variation S2-D2	*4.1*	*0.0*	*0*	*0*	*0*	*0*	*0*	*0*
Mill Creek	34.0	9.8	55,123	55,123	2,340	226	75	2

Table Notes:
[1]Data source is U.S. Forest Service and Bureau of Land Management grazing allotments datasets.
[2]Allotment miles crossed by the B2H Project 250-foot right-of-way.
[3]Active animal unit months of allotments crossed by the B2H Project centerline.
[4]Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction and long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing, including estimated AUMs affected. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description. Actual AUMs affected would be calculated and addressed during the permit renewal process.

Applicant's Proposed Action Alternative

As presented in Table 3-339, this alternative route crosses 11.5 miles of allotments (Links 2-1, 2-5, 2-30, 2-35, 2-50, 2-52, 2-60, 2-75, 2-85, 2-95). An estimated 83 acres of long-term surface disturbance and 260 acres of construction disturbance would be expected. Construction disturbance would affect less than 1 percent of the surface area of the allotments, which is expected to affect 1 AUM of the long-term forage available to livestock in the allotments.

Variations S2-A1 and S2-A2

Variation S2-A1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 1.2 fewer miles of allotments than Variation S2-A2, resulting in an estimated 6 fewer acres of long-term surface disturbance and 25 fewer acres of construction disturbance. Variation S2-A2 is expected to reduce long-term forage available to livestock by 1 AUM, while Variation S2-A1 would affect slightly less AUMs. Impacts for Variation S2-A1 would occur on Links 2-1 and 2-5, and impacts for Variation S2-A2 would occur on Links 2-3 and 2-7.

Variations S2-B1 and S2-B2

Variation S2-B1 shares the same alignment as the Applicant's Proposed Action Alternative. This route variation crosses 0.8 more miles of allotments (Links 2-30 and 2-35) than Variation S2-B2, which crosses no allotments. This would result in an estimated 6 more acres of long-term surface disturbance and 18 more acres of construction disturbance. Variation S2-B1 is expected to reduce long-term forage available to livestock by slightly more AUMs than S2-B2.

Variations S2-C1 and S2-C2

Variation S2-C1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 0.9 fewer miles of allotments resulting in an estimated 1 fewer acre of long-term surface disturbance and 15 fewer acres of construction disturbance than Variation S2-C2. Impacts for Variation S2-C1 would occur on Link 2-50, and impacts for Variation S2-C2 would occur on Link 2-48.

Variations S2-E1 and S2-E2

Variation S2-E1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 0.9 fewer miles of allotments resulting in an estimated 3 fewer acre of long-term surface disturbance and 11 fewer acres of construction disturbance than Variation S2-E2. Impacts for Variation S2-E1 would occur on Link 2-60, and impacts for Variation S2-E2 would occur on Links 2-55 and 2-65.

Variations S2-F1 and S2-F2

Variation S2-F1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 1.3 fewer miles of allotments resulting in an estimated 9 fewer acres of long-term surface disturbance and 29 fewer acres of construction disturbance than S2-F2. Impacts for Variation S2-F1 would occur on Links 2-75, 2-85, and 2-95, and impacts for Variation S2-F2 would occur on Links 2-70, 2-80, and 2-90.

Glass Hill Alternative

Compared to the Applicant's Proposed Action Alternative, the Glass Hill Alternative crosses 0.9 more miles of allotments resulting in an estimated 2 more acres of long-term disturbance and 17 more acres of construction disturbance. Area of vegetation clearing would affect less than 1 percent of the surface area of the allotments, which is expected to reduce the forage available to livestock in the allotments by 1 AUM (the same as the Applicant's Proposed Action). These impacts would occur generally on Links 2-1, 2-5, 2-30, 2-40, 2-50, 2-52, 2-60, 2-75, 2-85, and 2-95.

Variations S2-D1 and S2-D2

These route variations do not cross grazing allotments.

Mill Creek Alternative

Compared to the Applicant's Proposed Action Alternative, the Mill Creek Alternative crosses 1.7 fewer miles of allotments resulting in an estimated 8 fewer acres of long-term disturbance and 34 fewer acres of construction disturbance. Construction disturbance would affect less than 1 percent of the surface area of the allotments, which is expected to affect 1 AUM more than the Applicant's Proposed Action Alternative. This alternative route would have the least disturbance on livestock grazing allotments in Segment 2, but would affect the most AUMs. These impacts would occur generally on Links 2-3, 2-7, 2-63, 2-65, 2-70, 2-80, and 2-90.

Conclusions

Impacts on grazing allotments would be similar for all alternative routes; however, the Mill Creek Alternative would result in 10 fewer acres of long-term surface disturbance within grazing allotments than any other alternative. Variation S2-A2 would result in long-term impacts on 1 AUM while other

route variations would affect less than 1 AUM. The Millcreek Alternative would affect the most federal grazing allotment AUMs.

SEGMENT 3—BAKER VALLEY

Existing Agriculture

This section discloses impacts on existing agriculture in Segment 3 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on existing agriculture are presented in Table 3-340. The data used to generate these results are displayed on MV-16.

Table 3-341 presents the estimated long-term surface disturbance associated with each alternative and route variation. Table 3-342 presents estimated construction disturbance for the alternatives and route variations in Segment 3.

Aerial and ground application of pesticides, in addition to aerial seeding could occur on any cultivated farmland in Segment 3. Impacts include obstruction of flight paths from the tower structures and conductors. There could be increased safety risks to operators navigating around tower structures and conductors. There also could be interruptions in spraying schedules as a result of construction activities, but the Applicant would coordinate with landowners to reduce these impacts. No data are available for a comparison of alternatives and route variations.

Applicant's Proposed Action

This alternative has 1.0 mile of moderate and high impacts due to crossing irrigated farmland (Links 3-22, 3-58, 3-80, 3-82) and field crops (Links 3-4, 3-22, 3-58, 3-80, 3-82, 3-92). Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. They would be mitigated using micro-siting and coordination with the landowner. The Applicant's Proposed Action Alternative crosses 0.3 mile of pivot irrigation, all of which could be spanned. Long-term disturbance is estimated to be 6 acres of irrigated farmland and 6 acres of field crops. Construction disturbance is estimated to be 18 acres of irrigated farmland and 18 acres of field crops.

Variations S3-A1 and S3-A2

Variation S3-A1 is part of the same route as the Applicant's Proposed Action Alternative. Variation S3-A1 has 0.3 more miles of moderate impacts than Variation S3-A2 due to crossing pivot irrigation (Link 3-22), all of which could be spanned. Compared to Variation S3-A2, Variation S3-A1 would require an estimated long-term disturbance of 2 more acres of irrigated farmland and 1 more acre of field crops. Variation S3-A1 would require an estimated construction disturbance of 6 more acres of irrigated farmland and 4 more acres of field crops.

Table 3-340. Inventory Data and Residual Impacts for Crop Types and Irrigated Farmland in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Irrigation Type (miles crossed)				Crop Type or Confined Animal Feeding Operation (miles crossed)							Overall Residual Impacts (miles crossed)		
		Dryland[1]	Center Pivot Irrigation[1]	Flood Irrigation[1]	Other Mechanized Irrigation[1]	Fallow/Idle Cropland[2]	Field Crops[2]	Fruit and Tree Nuts[2]	Grass/Pasture[2]	Vegetables[2]	Tree Farms[3]	Confined Animal Feeding Operation[4]	Low	Moderate	High
Applicant's Proposed Action	55.2	0.0	0.3	0.2	0.3	0.0	0.8	0.0	2.5	0.0	0.0	0.0	2.5	0.7	0.3
Variation S3-A1	*12.4*	*0.0*	*0.3*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.1*	*0.1*	*0.3*
Variation S3-A2	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.1*	*0.1*	*0.0*
Variation S3-B1	*13.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*
Variation S3-B2	*14.4*	*0.0*	*0.2*	*0.0*	*0.1*	*0.0*	*0.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.6*	*0.2*
Variation S3-B3	*14.7*	*0.0*	*0.2*	*0.0*	*0.1*	*0.0*	*0.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.6*	*0.2*
Variation S3-B4	*14.3*	*0.0*	*0.0*	*0.0*	*1.3*	*0.0*	*1.5*	*0.0*	*0.3*	*0.1*	*0.0*	*0.0*	*0.2*	*1.8*	*0.0*
Variation S3-B5	*14.0*	*0.0*	*0.2*	*0.0*	*1.2*	*0.2*	*1.2*	*0.0*	*0.5*	*0.1*	*0.0*	*0.0*	*0.2*	*1.6*	*0.2*
Variation S3-C1	*21.1*	*0.0*	*0.0*	*0.2*	*0.3*	*0.0*	*0.5*	*0.0*	*2.1*	*0.0*	*0.0*	*0.0*	*2.1*	*0.6*	*0.0*
Variation S3-C2	*21.7*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.6*	*0.0*	*2.4*	*0.0*	*0.0*	*0.0*	*2.4*	*0.6*	*0.0*
Variation S3-C3	*21.1*	*0.0*	*0.0*	*0.3*	*0.0*	*0.0*	*0.5*	*0.0*	*1.2*	*0.0*	*0.0*	*0.0*	*1.2*	*0.5*	*0.0*
Variation S3-C4	*21.4*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.3*	*0.0*	*1.2*	*0.0*	*0.0*	*0.0*	*1.2*	*0.3*	*0.0*
Variation S3-C5	*21.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.1*	*0.0*	*1.6*	*0.0*	*0.0*	*0.0*	*1.6*	*0.1*	*0.0*
Variation S3-C6	*24.7*	*0.0*	*0.0*	*0.3*	*0.0*	*0.0*	*0.2*	*0.0*	*0.6*	*0.0*	*0.0*	*0.0*	*0.6*	*0.3*	*0.0*
Flagstaff A	55.3	0.0	0.5	0.2	1.5	0.2	2.0	0.0	2.9	0.1	0.0	0.0	2.6	2.3	0.5
Timber Canyon	70.3	0.0	0.0	1.4	0.2	0.0	2.1	0.0	0.9	0.0	0.0	0.0	1.6	2.3	0.0
Flagstaff A – Burnt River Mountain	55.3	0.0	0.5	0.3	1.2	0.2	2.0	0.0	2.0	0.1	0.0	0.0	1.7	2.2	0.5
Flagstaff B	56.0	0.0	0.5	0.2	0.4	0.0	1.4	0.0	2.4	0.0	0.0	0.0	2.4	1.3	0.5

Table 3-340. Inventory Data and Residual Impacts for Crop Types and Irrigated Farmland in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Irrigation Type (miles crossed)				Crop Type or Confined Animal Feeding Operation (miles crossed)							Overall Residual Impacts (miles crossed)		
		Dryland[1]	Center Pivot Irrigation[1]	Flood Irrigation[1]	Other Mechanized Irrigation[1]	Fallow/Idle Cropland[2]	Field Crops[2]	Fruit and Tree Nuts[2]	Grass/Pasture[2]	Vegetables[2]	Tree Farms[3]	Confined Animal Feeding Operation[4]	Low	Moderate	High
Flagstaff B – Burnt River West	55.7	0.0	0.2	0.1	0.1	0.0	0.8	0.0	1.9	0.0	0.0	0.0	1.9	0.8	0.2
Flagstaff B – Durkee	59.6	0.0	0.5	0.3	1.2	0.2	2.0	0.0	2.0	0.1	0.0	0.0	1.7	2.2	0.5

Table Notes:

[1]Data source includes cultivated farmland as seen in aerial imagery and classified as dryland or as an irrigation type. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[2]Data source includes U.S. Department of Agriculture CropScape. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[3]Data source is Boardman Tree Farm digitized from aerial imagery. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[4]Data source is Oregon Department of Agriculture confined animal feeding operations and self-reported dairies. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

Table 3-341. Estimated Long-Term Surface Disturbance of Crop Land and Irrigated Farmland in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Estimated Disturbance in Irrigated Farmland (acres)					Estimated Disturbance by Crop Type or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	55.2	0	2	1	2	6	0	6	0	18	0	0	0.0	23
Variation S3-A1	*12.4*	*0*	*2*	*0*	*0*	*2*	*0*	*2*	*0*	*1*	*0*	*0*	*0.0*	*2*
Variation S3-A2	*12.2*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*0*	*0.0*	*1*
Variation S3-B1	*13.9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0.0*	*1*
Variation S3-B2	*14.4*	*0*	*1*	*0*	*1*	*2*	*0*	*4*	*0*	*0*	*0*	*0*	*0.0*	*4*
Variation S3-B3	*14.7*	*0*	*1*	*0*	*1*	*2*	*0*	*3*	*0*	*0*	*0*	*0*	*0.0*	*3*
Variation S3-B4	*14.3*	*0*	*0*	*0*	*7*	*7*	*0*	*8*	*0*	*2*	*1*	*0*	*0.0*	*10*
Variation S3-B5	*14.0*	*0*	*1*	*0*	*7*	*9*	*1*	*7*	*0*	*3*	*1*	*0*	*0.0*	*12*
Variation S3-C1	*21.1*	*0*	*0*	*2*	*3*	*4*	*0*	*4*	*0*	*18*	*0*	*0*	*0.0*	*22*
Variation S3-C2	*21.7*	*0*	*0*	*2*	*0*	*2*	*0*	*5*	*0*	*20*	*0*	*0*	*0.0*	*25*
Variation S3-C3	*21.1*	*0*	*0*	*3*	*0*	*3*	*0*	*5*	*0*	*11*	*0*	*0*	*0.0*	*15*
Variation S3-C4	*21.4*	*0*	*0*	*1*	*0*	*1*	*0*	*3*	*0*	*11*	*0*	*0*	*0.0*	*14*
Variation S3-C5	*21.0*	*0*	*0*	*1*	*0*	*1*	*0*	*1*	*0*	*19*	*0*	*0*	*0.0*	*20*
Variation S3-C6	*24.7*	*0*	*0*	*4*	*0*	*4*	*0*	*2*	*0*	*7*	*0*	*0*	*0.0*	*10*
Flagstaff A	55.3	0	3	1	10	15	1	14	0	20	1	0	0.0	35
Timber Canyon	70.3	0	0	12	2	14	0	18	0	14	0	0	0.0	32
Flagstaff A – Burnt River Mountain	55.3	0	4	2	8	14	1	14	0	14	1	0	0.0	30

Table 3-341. Estimated Long-Term Surface Disturbance of Crop Land and Irrigated Farmland in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Estimated Disturbance in Irrigated Farmland (acres)					Estimated Disturbance by Crop Type or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Flagstaff B	56.0	0	3	1	3	7	0	9	0	16	0	0	0.0	25
Flagstaff B – Burnt River West	55.7	0	2	1	1	3	0	6	0	15	0	0	0.0	22
Flagstaff B - Durkee	59.6	0	4	3	1	8	0	9	0	8	0	0	0.0	17

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-342. Estimated Extent of Construction Disturbance of Crop Land and Irrigated Farmland in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Estimated Construction Disturbance in Irrigated Farmland (acres)					Estimated Construction Disturbance of Crop Types or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/ Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	55.2	0	7	4	7	18	0	18	0	56	0	0	0	74
Variation S3-A1	*12.4*	*0*	*6*	*0*	*0*	*6*	*0*	*6*	*0*	*2*	*0*	*0*	*0*	*8*
Variation S3-A2	*12.2*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*2*	*0*	*0*	*0*	*4*
Variation S3-B1	*13.9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*2*
Variation S3-B2	*14.4*	*0*	*4*	*0*	*2*	*7*	*0*	*13*	*0*	*0*	*0*	*0*	*0*	*13*
Variation S3-B3	*14.7*	*0*	*4*	*0*	*2*	*6*	*0*	*13*	*0*	*0*	*0*	*0*	*0*	*13*
Variation S3-B4	*14.3*	*0*	*0*	*0*	*27*	*27*	*0*	*31*	*0*	*6*	*2*	*0*	*0*	*40*
Variation S3-B5	*14.0*	*0*	*4*	*0*	*26*	*30*	*4*	*26*	*0*	*11*	*2*	*0*	*0*	*43*
Variation S3-C1	*21.1*	*0*	*0*	*5*	*7*	*12*	*0*	*12*	*0*	*50*	*0*	*0*	*0*	*62*
Variation S3-C2	*21.7*	*0*	*0*	*5*	*0*	*5*	*0*	*14*	*0*	*57*	*0*	*0*	*0*	*71*
Variation S3-C3	*21.1*	*0*	*0*	*7*	*0*	*7*	*0*	*12*	*0*	*29*	*0*	*0*	*0*	*41*
Variation S3-C4	*21.4*	*0*	*0*	*2*	*0*	*2*	*0*	*7*	*0*	*29*	*0*	*0*	*0*	*37*
Variation S3-C5	*21.0*	*0*	*0*	*3*	*0*	*3*	*0*	*3*	*0*	*44*	*0*	*0*	*0*	*47*
Variation S3-C6	*24.7*	*0*	*0*	*8*	*0*	*8*	*0*	*6*	*0*	*17*	*0*	*0*	*0*	*22*
Flagstaff A	55.3	0	11	4	33	48	4	44	0	64	2	0	0	115
Timber Canyon	70.3	0	0	34	5	39	0	50	0	38	0	0	0	89
Flagstaff A – Burnt River Mountain	55.3	0	11	7	27	45	4	45	0	45	2	0	0	96
Flagstaff B	56.0	0	11	4	9	24	0	31	0	53	0	0	0	84

Table 3-342. Estimated Extent of Construction Disturbance of Crop Land and Irrigated Farmland in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Estimated Construction Disturbance in Irrigated Farmland (acres)					Estimated Construction Disturbance of Crop Types or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/ Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Flagstaff B – Burnt River West	55.7	0	5	2	2	9	0	19	0	44	0	0	0	63
Flagstaff B – Durkee	59.6	0	12	7	2	22	0	26	0	22	0	0	0	48

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Variations S3-B1 through S3-B5

Variation S3-B1 is part of the same route as the Applicant's Proposed Action Alternative. Out of these route variations, Variation S3-B1 is the only that has no high or moderate impacts. Variation S3-B5 would have the highest impacts and compared to S3-B1 would require an estimated long-term disturbance of 9 more acres of irrigated farmland (Links 3-34, 3-36, 3-40) and 7 more acres of field crops (Links 3-24, 3-34, 3-39, 3-40). Compared to Variation S3-B1, Variation S3-B5 would require an estimated construction disturbance of 30 more acres of irrigated farmland and 26 more acres of field crops.

Variations S3-C1 through S3-C6

Variation S3-C1 is part of the same route as the Applicant's Proposed Action Alternative. Out of these route variations, Variation S3-C5 would have the lowest impacts. Variation S3-C1 and Variation S3-C2 would have the highest impacts. Compared to S3-C1, Variation S3-C5 would require an estimated long-term disturbance of 3 fewer acres of irrigated farmland (Link 3-60) and 3 fewer acres of field crops (Link 3-60). It would require an estimated construction disturbance of 9 fewer acres of irrigated farmland and 6 fewer acres of field crops.

Flagstaff A Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have an additional 1.8 miles of moderate and high impacts due to crossing irrigated agriculture (Links 3-22, 3-34, 3-36, 3-40, 3-58, 3-80, 3-82), vegetable operations (Link 3-36), and field crops (Links 3-4, 3-22, 3-34, 3-34, 3-39, 3-40, 3-58, 3-80, 3-82, 3-92). Impacts on field crops and vegetables include long-term removal of crops from production and temporary interruption of planting schedules. Impacts on irrigation include long-term interference with irrigation infrastructure and temporary interruption of irrigation schedules. These impacts would be mitigated using micro-siting, spanning, and coordination with the landowner. Long-term disturbance is estimated to be an additional 9 acres of irrigated agriculture and 9 acres of vegetables and field crops. Construction disturbance is estimated to be an additional 30 acres of irrigated farmland and 28 acres of field crops and vegetables.

This alternative route would have the highest impacts on existing agriculture of any alternative in Segment 3.

Timber Canyon Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have 0.5 mile less of high impacts, but 1.6 miles more of moderate impacts due to crossing irrigated agriculture (Links 3-8, 3-80, 3-82) and field crops (Links 3-6, 3-8, 3-80, 3-82). Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. Impacts on irrigation include long-term interference with irrigation infrastructure and temporary interruption of irrigation schedules. These impacts would be mitigated using micro-siting, spanning, and coordination with the landowner. Long-term disturbance is estimated to be an additional 8 acres of irrigated agriculture and 12 acres of field crops. Construction disturbance is estimated to be an additional 21 acres irrigated farmland and 32 acres of field crops.

Flagstaff A – Burnt River Mountain Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have an additional 1.7 miles of moderate and high impacts due to crossing irrigated agriculture (3-22, 3-34, 3-36, 3-40, 3-60, 3-64), vegetable operations (Link 3-36), and field crops (Links 3-4, 3-22, 3-24, 3-34, 3-39, 3-40, 3-60, 3-64, 3-72, 3-92). Impacts on field crops and vegetables include long-term removal of crops from production and temporary interruption of planting schedules. Impacts on irrigation include long-term interference with irrigation infrastructure and temporary interruption of irrigation schedules. These impacts would be mitigated using micro-siting, spanning, and coordination with the landowner. Long-term disturbance is estimated to be an additional 8 acres of irrigated agriculture and 9 acres of vegetables and field crops. Construction disturbance is estimated to be an additional 27 acres of irrigated farmland and 29 acres of field crops and vegetables.

Flagstaff B Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have an additional 0.8 mile of moderate and high impacts due to crossing irrigated agriculture (3-22, 3-37, 3-41, 3-58, 3-80, 3-82) and field crops (Links 3-4, 3-22, 3-24, 3-37, 3-41, 3-58, 3-80, 3-82, 3-92). Impacts on field crops and irrigation would be similar to those discussed for the Flagstaff A – Burnt River Mountain Alternative, except long-term disturbance is estimated to be an additional 1 acre of irrigated agriculture and 3 acres of field crops. Construction disturbance is estimated to be an additional 6 acres irrigated farmland and 13 acres of field crops.

Flagstaff B – Burnt River West Alternative

Compared to the Applicant's Proposed Action Alternative, the Flagstaff B – Burnt River West Alternative would have the same miles of moderate and high impacts due to crossing irrigated agriculture (Links 3-37, 3-41, 3-60) and field crops (Links 3-12, 3-24, 3-37, 3-41, 3-60). Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. Impacts on field crops and irrigation would be similar to those discussed for the Flagstaff A – Burnt River Mountain Alternative. Long-term disturbance is estimated to be 3 fewer acres of irrigated agriculture and the same acres of field crops. Construction disturbance is estimated to be 9 fewer acres of irrigated farmland and 1 more acre of field crops. This alternative route would have the least impacts of all alternative routes in Segment 3.

Flagstaff B – Durkee

Compared to the Applicant's Proposed Action Alternative, the Flagstaff B – Durkee Alternative would have an additional 1.7 miles of moderate and high impacts due to crossing irrigated agriculture (Links 3-22, 3-37, 3-41, 3-60, 3-90) and field crops (Links 3-4, 3-22, 3-24, 3-37, 3-41, 3-60, 3-90). Impacts on field crops and irrigation would be similar to those discussed for the Flagstaff A – Burnt River Mountain Alternative, except long-term disturbance is estimated to be an additional 2 acres of irrigated agriculture and 3 acres of field crops. Construction disturbance is estimated to be an additional 4 acres of irrigated farmland and 8 acres of field crops.

Conclusions

All alternatives in Segment 3 would affect existing agriculture, though the Applicant's Proposed Action and Flagstaff B – Burnt River West alternatives would have the least impacts on existing agriculture in Segment 3. The Applicant's Proposed Action takes an easterly route through the Baker area, avoiding much of the existing irrigated agriculture that some of the other alternatives cross (such as the Flagstaff A and Flagstaff A – Burnt River Mountain alternatives). The Timber Canyon Alternative would avoid the agriculture in Baker Valley; however, it crosses existing irrigated agriculture near Richland. The Flagstaff B Alternative, though it does not avoid existing agriculture as well as the Applicant's Proposed Action Alternative, would have much less impacts on existing agriculture than the Timber Canyon, Flagstaff A and Flagstaff A - Burnt River Mountain Alternatives. Through the Durkee area, the Flagstaff B – Durkee Alternative avoids existing agriculture that the Applicant's Proposed Action Alternative crosses. Thus, a combination of the Applicant's Proposed Action Alternative and the Flagstaff B – Durkee Alternative would have the least impacts on existing agriculture in Segment 3.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

This section discloses impacts on important farmland, high-value soils, and CRP lands in Segment 3 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on important farmland, high-value soils, and CRP lands are presented in Table 3-343 through Table 3-345. Refer also to MV-17.

Table 3-343. Important Farmland and High-Value Soils in Segment 3—Baker Valley (miles crossed)

Alternative Route	Total Length (miles)	Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	High-value Soils[1,3]
Applicant's Proposed Action	55.2	4.3	36.9	4.6
Variation S3-A1	*12.4*	*0.0*	*6.4*	*0.0*
Variation S3-A2	*12.2*	*0.0*	*3.2*	*0.0*
Variation S3-B1	*13.9*	*2.3*	*8.3*	*2.5*
Variation S3-B2	*14.4*	*1.6*	*8.6*	*2.0*
Variation S3-B3	*14.7*	*1.6*	*9.2*	*2.0*
Variation S3-B4	*14.3*	*2.7*	*8.7*	*3.0*
Variation S3-B5	*14.0*	*2.9*	*7.7*	*2.9*
Variation S3-C1	*21.1*	*2.0*	*15.3*	*2.1*
Variation S3-C2	*21.7*	*1.9*	*15.9*	*2.1*
Variation S3-C3	*21.1*	*2.1*	*11.8*	*2.4*
Variation S3-C4	*21.4*	*2.0*	*12.4*	*2.2*
Variation S3-C5	*21.0*	*0.5*	*11.5*	*0.5*
Variation S3-C6	*24.7*	*0.6*	*18.4*	*0.7*
Flagstaff A	55.3	4.9	36.3	5.0
Timber Canyon	70.3	2.3	32.0	2.9
Flagstaff A – Burnt River Mountain	55.3	5.0	32.8	5.3

Table 3-343. Important Farmland and High-Value Soils in Segment 3—Baker Valley (miles crossed)

Alternative Route	Total Length (miles)	Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	High-value Soils[1,3]
Flagstaff B	56.0	3.6	37.8	4.1
Flagstaff B – Burnt River West	55.7	2.1	30.8	2.5
Flagstaff B – Durkee	59.6	2.2	40.9	2.7

Table Notes:
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Table 3-344. Estimated Long-Term Surface Disturbance of Important Farmland and High-Value Soils in Segment 3—Baker Valley (acres)

Alternative Route	Total Length (miles)	Prime Farmland if Irrigated	Farmland of Statewide Importance	High-value Soils
Applicant's Proposed Action	55.2	30	258	32
Variation S3-A1	*12.4*	*0*	*35*	*0*
Variation S3-A2	*12.2*	*0*	*17*	*0*
Variation S3-B1	*13.9*	*16*	*58*	*17*
Variation S3-B2	*14.4*	*10*	*55*	*13*
Variation S3-B3	*14.7*	*9*	*53*	*12*
Variation S3-B4	*14.3*	*15*	*48*	*17*
Variation S3-B5	*14.0*	*18*	*47*	*18*
Variation S3-C1	*21.1*	*17*	*128*	*18*
Variation S3-C2	*21.7*	*16*	*130*	*17*
Variation S3-C3	*21.1*	*19*	*106*	*22*
Variation S3-C4	*21.4*	*18*	*112*	*20*
Variation S3-C5	*21.0*	*6*	*138*	*6*
Variation S3-C6	*24.7*	*7*	*227*	*9*
Flagstaff A	55.3	33	246	34
Timber Canyon	70.3	20	276	25
Flagstaff A – Burnt River Mountain	55.3	35	230	37
Flagstaff B	56.0	24	253	27
Flagstaff B – Burnt River West	55.7	17	246	20
Flagstaff B – Durkee	59.6	19	345	23

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-345. Estimated Extent of Construction Disturbance of Important Farmland and High-Value Soils in Segment 3-Baker Valley (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	55.2	96	827	103
Variation S3-A1	*12.4*	*0*	*134*	*0*
Variation S3-A2	*12.2*	*0*	*66*	*0*
Variation S3-B1	*13.9*	*52*	*186*	*56*
Variation S3-B2	*14.4*	*35*	*188*	*44*
Variation S3-B3	*14.7*	*34*	*195*	*42*
Variation S3-B4	*14.3*	*57*	*182*	*63*
Variation S3-B5	*14.0*	*62*	*166*	*62*
Variation S3-C1	*21.1*	*48*	*364*	*50*
Variation S3-C2	*21.7*	*45*	*375*	*50*
Variation S3-C3	*21.1*	*51*	*288*	*59*
Variation S3-C4	*21.4*	*49*	*303*	*54*
Variation S3-C5	*21.0*	*14*	*315*	*14*
Variation S3-C6	*24.7*	*17*	*511*	*19*
Flagstaff A	55.3	109	806	111
Timber Canyon	70.3	55	770	70
Flagstaff A – Burnt River Mountain	55.3	112	736	119
Flagstaff B	56.0	80	836	91
Flagstaff B – Burnt River West	55.7	49	721	59
Flagstaff B – Durkee	59.6	52	976	64

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-346 presents the extent of CRP lands that would be crossed by the right-of-way of the B2H Project.

Table 3-346. Conservation Reserve Program Lands Crossed by the Right-of-Way in Segment 3—Baker Valley		
Alternative Route	**Total Length (miles)**	**Lands Enrolled in Conservation Reserve Programs (acres)**
Applicant's Proposed Action	55.2	2
Variation S3-A1	*12.4*	*0*
Variation S3-A2	*12.2*	*0*
Variation S3-B1	*13.9*	*0*
Variation S3-B2	*14.4*	*0*
Variation S3-B3	*14.7*	*0*
Variation S3-B4	*14.3*	*0*
Variation S3-B5	*14.0*	*0*

Table 3-346. Conservation Reserve Program Lands Crossed by the Right-of-Way in Segment 3—Baker Valley		
Alternative Route	**Total Length (miles)**	**Lands Enrolled in Conservation Reserve Programs (acres)**
Variation S3-C1	*21.1*	*2*
Variation S3-C2	*21.7*	*6*
Variation S3-C3	*21.1*	*19*
Variation S3-C4	*21.4*	*10*
Variation S3-C5	*21.0*	*7*
Variation S3-C6	*24.7*	*5*
Flagstaff A	55.3	2
Timber Canyon	70.3	12
Flagstaff A – Burnt River Mountain	55.3	19
Flagstaff B	56.0	2
Flagstaff B – Burnt River West	55.7	7
Flagstaff B – Durkee	59.6	5
Table Note: The Farm Service Agency estimated the number of acres of CRP lands crossed by the B2H Project 250-foot right-of-way. CRP acres may be slightly over-reported. Acres have been rounded to the nearest whole number.		

Applicant's Proposed Action Alternative

This alternative route would require an estimated construction disturbance of 96 acres of prime farmland if irrigated, 827 acres of farmland of statewide importance, and 103 acres of high-value soils. This alternative route would require an estimated long-term disturbance of 30 acres of prime farmland if irrigated, 258 acres of farmland of statewide importance, and 32 acres of high-value soils. These impacts would occur generally on Links 3-4, 3-22, 3-26, 3-28, 3-52, 3-54, 3-58, 3-78, 3-80, 3-82, 3-86, 3-88, and 3-92. Vegetation clearing would increase the potential for soil loss due to erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

In Segment 3, this alternative route crosses the least land (2 acres) enrolled in CRPs (although the same extent as Flagstaff A and Flagstaff B Alternatives). Where construction disturbance occurs, it would be reclaimed and the CRP lands would remain under contract. However, acreages of footprints for permanent B2H Project facilities would be calculated and these lands would be removed from contracts, reducing annual payments to landowners.

Variations S3-A1 and S3-A2

Variation S3-A1 takes the same route as the Applicant's Proposed Action Alternative. Compared to Variation S3-A2, this route variation would require an estimated construction disturbance of 68 more acres of farmland of statewide importance and an estimated long-term disturbance of 18 more acres of farmland of statewide importance. Impacts associated with S3-A1 would occur on Links 3-4 and 3-22, and impacts associated with S3-A2 would occur on Links 3-10 and 3-12.

Variations S3-B1 through S3-B5

Variation S3-B1 takes the same route as the Applicant's Proposed Action Alternative. Variation S3-B3 would have the least impact on prime farmland if irrigated and high-value soils. Variation S3-B4 would have the highest impact on high-value soils requiring 63 acres of construction disturbance and 17 acres of long-term surface disturbance of high-value soils. Variation S3-B5 would have the highest impacts of any of these route variations on prime farmland if irrigated, requiring an estimated 10 more acres of construction disturbance and 2 more acres of long-term surface disturbance than Variation S3-B1. Impacts associated with S3-B1 would occur on Links 3-26 and 3-28. Impacts associated with S3-B2 would occur on Links 3-24, 3-31, 3-37, 3-41, 3-46, 3-47, and 3-48. Impacts associated with S3-B3 would occur on Links 3-24, 3-31, 3-37, 3-41, 3-44, 3-45, 3-46, and 3-48. Impacts associated with S3-B4 would occur on Links 3-24, 3-31, 3-32, 3-36, 3-38, 3-39, 3-43, 3-44, and 3-48. Impacts associated with S3-B5 would occur on Links 3-24, 3-34, 3-36, 3-38, 3-39, 3-40, 3-46, 3-47, and 3-48.

Variations S3-C1 through Variation S3-C6

Variation S3-C1 takes the same route as the Applicant's Proposed Action Alternative. Variation S3-C5 would have the least impacts on prime farmland if irrigated, requiring an estimated 34 fewer acres of construction disturbance and 11 fewer acres of long-term surface disturbance of prime farmland if irrigated than Variation S3-C1. It would require an estimated 36 fewer acres of construction disturbance and 12 fewer acres of long-term surface disturbance of high-value soils than Variation S3-C1. Variation S3-C3 would have the least impacts on farmland of statewide importance requiring 76 fewer acres of construction disturbance and 22 fewer acres of long-term surface disturbance than Variation S3-C1. Impacts associated with S3-C1 would occur on Links 3-58, 3-78, 3-80, 3-82, 3-86, 3-88, and 3-92. Impacts associated with S3-C2 would occur on Links 3-42, 3-78, 3-80, 3-82, 3-86, 3-88, and 3-92. Impacts associated with S3-C3 would occur on Links 3-60, 3-62, 3-64, 3-72, 3-76, 3-88, and 3-92. Impacts associated with S3-C4 would occur on Links 3-60, 3-62, 3-68, 3-70, 3-72, 3-76, 3-88, and 3-92. Impacts associated with S3-C5 would occur on Links 3-60, 3-62, 3-66, 3-71, 3-73, and 3-94. Impacts associated with S3-C6 would occur on Links 3-60, 3-74, 3-90, and 3-94.

Variation S3-C1 crosses the least CRP lands and Variation S3-C6 crosses the most CRP lands.

Flagstaff A Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 13 more acres of prime farmland if irrigated, 21 fewer acres of farmland of statewide importance, and 8 more acres of high-value soils. This alternative route would require an estimated long-term disturbance of 3 more acres of prime farmland if irrigated, 12 fewer acres of farmland of statewide importance, and 2 more acres of high-value soils. These impacts would occur generally on Links 3-4, 3-22, 3-24, 3-34, 3-36, 3-38, 3-39, 3-40, 3-46, 3-47, 3-48, 3-52, 3-54, 3-58, 3-78, 3-80, 3-82, 3-86, 3-88, and 3-92.

This alternative route crosses the same amount of CRP lands as the Applicant's Proposed Action Alternative. Where construction disturbance occurs would be reclaimed and the CRP lands would remain under contract. However, acreages of footprints for permanent B2H Project facilities would be

calculated and these lands would be removed from contracts, reducing annual payments to landowners.

Timber Canyon Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 41 fewer acres of prime farmland if irrigated, 57 fewer acres of farmland of statewide importance, and 33 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 10 fewer acres of prime farmland if irrigated, 18 more acres of farmland of statewide importance, and 7 fewer acres of high-value soils. These impacts would occur generally on Links 3-1, 3-2, 3-6, 3-8, 3-80, 3-82, 3-86, 3-88, and 3-92.

This alternative route crosses 10 more acres of CRP lands than the Applicant's Proposed Action Alternative. Where construction disturbance occurs would be reclaimed and the CRP lands would remain under contract. However, acreages of footprints for permanent B2H Project facilities would be calculated and these lands would be removed from contracts, reducing annual payments to landowners.

Flagstaff A – Burnt River Mountain Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 16 more acres of prime farmland if irrigated, 91 more acres of farmland of statewide importance, and 16 more acres of high-value soils. This alternative route would require an estimated long-term disturbance of 5 more acres of prime farmland if irrigated, 28 fewer acres of farmland of statewide importance, and 5 more acres of high-value soils. These impacts would occur generally on Links 3-4, 3-22, 3-24, 3-34, 3-36, 3-38, 3-39, 3-40, 3-46, 3-47, 3-48, 3-52, 3-54, 3-60, 3-62, 3-64, 3-72, 3-76, and 3-88.

This alternative route crosses 17 more acres of CRP lands than the Applicant's Proposed Action Alternative. Where construction disturbance occurs would be reclaimed and the CRP lands would remain under contract. However, acreages of footprints for permanent B2H Project facilities would be calculated and these lands would be removed from contracts, reducing annual payments to landowners.

Flagstaff B Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 16 fewer acres of prime farmland if irrigated, 9 more acres of farmland of statewide importance, and 12 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 6 fewer acres of prime farmland if irrigated, 5 fewer acres of farmland of statewide importance, and 5 fewer acres of high-value soils. These impacts would occur generally on Links 3-4, 3-22, 3-24, 3-31, 3-37, 3-41, 3-44, 3-45, 3-46, 3-48, 3-52, 3-54, 3-58, 3-78, 3-80, 3-82, 3-86, 3-88, and 3-92.

This alternative route crosses the same amount of CRP lands as the Applicant's Proposed Action Alternative. Where construction disturbance occurs would be reclaimed and the CRP lands would

remain under contract. However, acreages of footprints for permanent B2H Project facilities would be calculated and these lands would be removed from contracts, reducing annual payments to landowners.

Flagstaff B – Burnt River West Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 47 fewer acres of prime farmland if irrigated, 106 fewer acres of farmland of statewide importance, and 44 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 13 fewer acres of prime farmland if irrigated, 12 fewer acres of farmland of statewide importance, and 12 fewer acres of high-value soils. These impacts would occur generally on Links 3-10, 3-12, 3-23, 3-31, 3-37, 3-41, 3-43, 3-45, 3-46, 3-48, 3-52, 3-54, 3-60, 3-62, 3-66, 3-71, 3-73, and 3-94.

This alternative route crosses 5 more acres of CRP lands than the Applicant's Proposed Action Alternative. Where construction disturbance occurs would be reclaimed and the CRP lands would remain under contract. However, acreages of footprints for permanent B2H Project facilities would be calculated and these lands would be removed from contracts, reducing annual payments to landowners.

Flagstaff B – Durkee

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 4 fewer acres of prime farmland if irrigated, 149 more acres of farmland of statewide importance, and 39 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 11 fewer acres of prime farmland if irrigated, 87 more acres of farmland of statewide importance, and 9 fewer acres of high-value soils. These impacts would occur generally on Links 3-4, 3-22, 3-24, 3-31, 3-37, 3-41, 3-44, 3-45, 3-46, 3-48, 3-52, 3-54, 3-60, 3-74, 3-90, and 3-94.

This alternative route crosses 3 more acres of CRP lands than the Applicant's Proposed Action Alternative. Where construction disturbance occurs would be reclaimed and the CRP lands would remain under contract. However, acreages of footprints for permanent B2H Project facilities would be calculated and these lands would be removed from contracts, reducing annual payments to landowners.

Conclusions

The Applicant's Proposed Action, Flagstaff A, Flagstaff A – Burnt River Mountain, and Flagstaff B alternatives cross prime farmland if irrigated, farmland of statewide importance, and high-value soils for similar distances. The Timber Canyon, Flagstaff B – Burnt River West, and Flagstaff B – Durkee Alternatives cross those soil types for distances much less than the first group. However, the Timber Canyon and Flagstaff A – Burnt River Mountain Alternatives would affect the most CRP acres. Thus, the Flagstaff A – Burnt River Mountain Alternative would have the most effects on these soils types in Segment 3. The Flagstaff B – Burnt River West Alternative would have the least effects on these soil types in Segment 3.

Livestock Grazing

This section discloses impacts on livestock grazing in Segment 3 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on livestock grazing are presented in Table 3-347. The data used to generate these results are displayed on MV-18. Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Estimated affected AUMs are based off of long-term disturbance on federal grazing allotments. Long-term impacts on AUMs would occur throughout all allotments crossed by a particular segment.

Table 3-347. Estimated Extent of Disturbance of Grazing Allotments in Segment 3—Morrow-Umatilla

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Applicant's Proposed Action	55.2	35.5	108,963	83,699	6,143	796	248	9
Variation S3-A1	*12.4*	*4.1*	*16,173*	*11,776*	*524*	*86*	*22*	*<1*
Variation S3-A2	*12.2*	*3.9*	*16,173*	*11,456*	*524*	*80*	*20*	*<1*
Variation S3-B1	*13.9*	*12.4*	*29,167*	19,534	*2,154*	*278*	*86*	*3*
Variation S3-B2	*14.4*	*9.0*	*11,799*	*11,799*	*241*	*197*	*58*	*<1*
Variation S3-B3	*14.7*	*9.3*	*11,799*	*11,799*	*241*	*197*	*54*	*0*
Variation S3-B4	*14.3*	*7.8*	*10,045*	*10,045*	*131*	*163*	*43*	*0*
Variation S3-B5	*14.0*	*7.6*	*10,045*	*10,045*	*131*	*164*	*46*	*<1*
Variation S3-C1	*21.1*	*14.1*	*64,015*	*45,265*	*3,795*	*336*	*118*	*6*
Variation S3-C2	*21.7*	*14.1*	*60,206*	*40,271*	*3,701*	*333*	*115*	*4*
Variation S3-C3	*21.1*	*11.1*	*31,146*	*24,736*	*1,756*	*271*	*100*	*4*
Variation S3-C4	*21.4*	*11.6*	*36,070*	*27,009*	*2,545*	*284*	*105*	*4*
Variation S3-C5	*21.0*	*18.2*	*42,022*	*31,415*	*3,406*	*499*	*218*	*8*
Variation S3-C6	*24.7*	*19.9*	*52,437*	*36,529*	*34,779*	*552*	*245*	*17*
Flagstaff A	55.3	30.7	63,245	100,933	74,210	682	208	6
Timber Canyon	70.3	50.4	159,694	120,124	8,491	1,212	434	20
Flagstaff A – Burnt River Mountain	55.3	27.7	82,505	53,682	4,644	621	194	4
Flagstaff B	56.0	32.4	102,688	75,965	5,128	717	217	6

Table 3-347. Estimated Extent of Disturbance of Grazing Allotments in Segment 3—Morrow-Umatilla

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Flagstaff B – Burnt River West	55.7	36.3	95,135	61,795	6,404	850	290	6
Flagstaff B – Durkee	59.6	38.2	105,551	67,229	7,777	911	322	14

Table Notes:
[1]Data source is U.S. Forest Service and Bureau of Land Management grazing allotments datasets.
[2]Allotment miles crossed by the B2H Project 250-foot right-of-way.
[3]Active animal unit months of allotments crossed by the B2H Project centerline.
[4]Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction and long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing, including estimated AUMs affected. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description. Actual AUMs affected would be calculated and addressed during the permit renewal process.

Applicant's Proposed Action Alternative

As presented in Table 3-347, this alternative route crosses 35.5 miles of allotments (Links 3-4, 3-26, 3-28, 3-54, 3-58, 3-78, 3-80, 3-88, 3-92). An estimated 248 acres of long-term surface disturbance and 796 acres of construction disturbance would be expected. Construction disturbance would affect 1 percent of the surface area of the allotments, which could result in long-term reduced forage by 9 AUMs.

Variations S3-A1 and S3-A2

Variation S3-A1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 0.2 more miles of allotments over S3-A2. This would result in an estimated 2 more acres of long-term surface disturbance and 6 more acres of construction disturbance. S3-A1 is expected to affect slightly more AUMs than S3-A2 long term. Impacts on S3-A1 would occur on Link 3-4, and impacts on S3-A2 would occur on Links 3-10 and 3-12.

Variations S3-B1 through S3-B5

Variation S3-B1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 3.1 more miles of allotments over Variation S3-B3 and is expected to affect the most AUMs (3.3). When comparing these route variations, Variation S3-B1 would have the most long-term surface disturbance of allotments (86 acres) and the most construction disturbance (278 acres). Variation S3-B4 would have the least long-term surface disturbance (43 acres). Impacts on S3-B1 would occur on Links 3-26 and 3-28. Impacts on S3-B2 would occur on Links 3-37, 3-41, 3-46, 3-47, and 3-48. Impacts on S3-B3 would occur on Links 3-37, 3-41, 3-44, 3-45, 3-46, and 3-48. Impacts on S3-B4 would occur on Links 3-32, 3-43, 3-44, and 3-48. Impacts on S3-B5 would occur on Links 3-34, 3-40, 3-46, 3-47, and 3-48.

Variations S3-C1 through S3-C6

Variation S3-C1 is part of the Applicant's Proposed Action Alternative. Variation S3-C6 crosses the most miles of any of these variations (19.9) (Links 3-56, 3-60, 3-74, 3-90) and would result in 127 more acres of long-term surface disturbance and 216 more acres of construction disturbance over Variation S3-C1. Variation S3-C3 crosses the fewest miles of allotments and would result in 18 fewer acres of long-term surface disturbance and 65 fewer acres of construction disturbance than Variation S3-C1. Variation S3-C6 could affect 17 AUMs long term. Impacts on S3-C1 would occur on Links 3-58, 3-78, 3-80, 3-88, and 3-92. Impacts on S3-C2 would occur on Links 3-42, 3-56, 3-78, 3-80, 3-88, and 3-92. Impacts on S3-C3 would occur on Links 3-56, 3-60, 3-62, 3-64, 3-72, 3-76, 3-88, and 3-92. Impacts on S3-C4 would occur on Links 3-56, 3-60, 3-62, 3-68, 3-70, 3-72, 3-76, 3-88, and 3-92. Impacts on S3-C5 would occur on Links 3-56, 3-60, 3-62, 3-66, 3-71, and 3-73. Impacts on S3-C6 would occur on Links 3-56, 3-60, 3-74, and 3-90.

Flagstaff A Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses 4.8 fewer miles of allotments resulting in an estimated 40 fewer acres of long-term surface disturbance and 114 fewer acres of construction disturbance. Construction disturbance would affect approximately 1 percent of the surface area of the allotments, which could result in long-term reduced forage by 3 AUMs less than the Applicant's Proposed Action Alternative. These impacts would occur generally on Links 3-4, 3-34, 3-40, 3-46, 3-47, 3-48, 3-54, 3-58, 3-78, 3-80, 3-88, and 3-92.

Timber Canyon Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses 14.9 more miles of allotments but would result in 186 more acres of long-term surface disturbance and 416 more acres of construction disturbance. Construction disturbance would affect less than 1 percent of the surface area of the allotments, but is expected to reduce the forage available to livestock by 11 AUMs more than the Applicant's Proposed Action Alternative. These impacts would occur generally on Links 3-1, 3-2, 3-6, 3-8, 3-80, and 3-92.

Flagstaff A – Burnt River Mountain Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses 7.8 fewer miles of allotments resulting in an estimated 104 fewer acres of long-term surface disturbance and 175 fewer acres of construction disturbance. Construction disturbance would affect less than 1 percent of the surface area of the allotments, which is expected to affect the forage available to livestock by 5 AUMs fewer than the Applicant's Proposed Action Alternative. This alternative route would have the least disturbance of grazing allotments. These impacts would occur generally on Links 3-4, 3-34, 3-40, 3-46, 3-47, 3-48, 3-54, 3-56, 3-60, 3-62, 3-64, 3-72, 3-76, 3-88, and 3-92.

Flagstaff B Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses 3.1 fewer miles of allotments resulting in an estimated 31 fewer acres of long-term surface disturbance and 79 fewer acres of construction disturbance. Construction disturbance would affect less than 1 percent of the

surface area of the allotments, which could over the long term reduce forage by 3 AUMs fewer than the Applicant's Proposed Action long term. These impacts would occur generally on Links 3-4, 3-36, 3-41, 3-44, 3-45, 3-46, 3-48, 3-52, 3-54, 3-58, 3-78, 3-80, 3-88, and 3-92.

Flagstaff B – Burnt River West Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses 0.8 more miles of allotments resulting in an estimated 42 more acres of long-term surface disturbance and 54 more acres of construction disturbance. Construction disturbance would affect approximately 1 percent of the surface area of the allotments, which could result in long-term reduced forage by 3 AUMs fewer than the Applicant's Proposed Action Alternative. These impacts would occur generally on Links 3-10, 3-12, 3-37, 3-41, 3-44, 3-45, 3-46, 3-48, 3-54, 3-56, 3-60, 3-62, 3-66, 3-71, and 3-73.

Flagstaff B – Durkee Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses 2.7 more miles of allotments resulting in an estimated 74 more acres of long-term surface disturbance and 115 more acres of construction disturbance. Construction disturbance would affect approximately 1 percent of the surface area of the allotments, which could result in long-term reduced forage by 5 AUMs more than the Applicant's Proposed Action Alternative. These impacts would occur generally on Links 3-4, 3-37, 3-41, 3-44, 3-45, 3-46, 3-48, 3-54, 3-56, 3-60, 3-74, and 3-90.

Conclusions

The Timber Canyon and Flagstaff B - Durkee alternatives would result in the highest long-term impacts on grazing allotments. These alternatives also would result in the highest number of long-term reduced forage in AUMs located along these routes. The other alternative routes would result in much less impact on federal grazing AUMs in Segment 3.

SEGMENT 4—BROGAN

Existing Agriculture

This section discloses impacts on existing agriculture in Segment 4 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on existing agriculture are presented in Table 3-348. The data used to generate these results are displayed on MV-16.

Table 3-349 presents the estimated long-term surface disturbance associated with each alternative and route variation. Table 3-350 presents estimated construction disturbance for the alternatives and route variations in Segment 4.

Aerial and ground application of pesticides, in addition to aerial seeding could occur on any cultivated farmland in Segment 4. Impacts include obstruction of flight paths from the tower structures and conductors. There could be increased safety risks to operators navigating around tower structures and conductors. There also could be interruptions in spraying schedules as a result of construction activities, but the Applicant would coordinate with landowners to reduce these impacts. No data are available for a comparison of alternatives and route variations.

Table 3-348. Inventory Data and Residual Impacts for Crop Types and Irrigated Farmland in Segment 4—Brogan

Alternative Route	Total Length (miles)	Irrigation Type (miles crossed)				Crop Type or Confined Animal Feeding Operation (miles crossed)							Overall Residual Impacts (miles crossed)		
		Dryland[1]	Center Pivot Irrigation[1]	Flood Irrigation[1]	Other Mechanized Irrigation[1]	Fallow/Idle Cropland[2]	Field Crops[2]	Fruit and Tree Nuts[2]	Grass/Pasture[2]	Vegetables[2]	Tree Farms[3]	Confined Animal Feeding Operation[4]	Low	Moderate	High
Applicant's Proposed Action	40.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	0.0	7.8	0.0	0.0
Variation S4-A1	*5.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.0*	*0.0*	*0.0*	*0.0*	*2.0*	*0.0*	*0.0*
Variation S4-A2	*6.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.6*	*0.0*	*0.0*	*0.0*	*1.6*	*0.0*	*0.0*
Variation S4-A3	*6.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.5*	*0.0*	*0.0*	*0.0*	*1.5*	*0.0*	*0.0*
Tub Mountain South	40.5	0.0	0.7	1.6	0.3	0.0	2.4	0.0	26.3	0.0	0.0	0.0	26.0	2.1	0.7
Willow Creek	34.6	0.0	1.8	0.2	0.2	0.0	2.3	0.0	13.5	0.0	0.0	0.0	13.5	0.6	1.8

Table Notes:

[1]Data source includes cultivated farmland as seen in aerial imagery and classified as dryland or as an irrigation type. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[2]Data source includes U.S. Department of Agriculture CropScape. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[3]Data source is Boardman Tree Farm digitized from aerial imagery. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[4]Data source is Oregon Department of Agriculture confined animal feeding operations and self-reported dairies. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

Table 3-349. Estimated Long-Term Surface Disturbance of Crop Land and Irrigated Farmland in Segment 4—Brogan

Alternative Route	Total Length (miles)	Estimated Disturbance in Irrigated Farmland (acres)					Estimated Disturbance by Crop Type or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	40.1	0	0	0	0	0	0	0	0	65	0	0	0	65
Variation S4-A1	*5.9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*21*	*0*	*0*	*0*	*21*
Variation S4-A2	*6.0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*15*	*0*	*0*	*0*	*15*
Variation S4-A3	*6.1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*14*	*0*	*0*	*0*	*14*
Tub Mountain South	40.5	0	5	11	2	18	0	16	0	179	0	0	0	195
Willow Creek	34.6	0	13	1	1	15	0	16	0	94	0	0	0	111

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-350. Estimated Extent of Construction Disturbance of Crop Land and Irrigated Farmland in Segment 4—Brogan

Alternative Route	Total Length (miles)	Estimated Construction Disturbance in Irrigated Farmland (acres)					Estimated Construction Disturbance of Crop Types or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/ Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	40.1	0	0	0	0	0	0	0	0	186	0	0	0	186
Variation S4-A1	*5.9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*52*	*0*	*0*	*0*	*52*
Variation S4-A2	*6.0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*40*	*0*	*0*	*0*	*40*
Variation S4-A3	*6.1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*38*	*0*	*0*	*0*	*38*
Tub Mountain South	40.5	0	16	36	7	58	0	54	0	586	0	0	0	640
Willow Creek	34.6	0	41	5	5	50	0	52	0	304	0	0	0	355

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Applicant's Proposed Action Alternative

This alternative route does not cross moderate or high impacts on existing agriculture.

Variations S4-A1 through S4-A3

These route variations do not cross moderate or high impacts on existing agriculture.

Tub Mountain South Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have an additional 2.8 miles of moderate and high impacts due to crossing irrigated agriculture (Link 4-75) and field crops (Link 4-75). Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. Impacts on irrigation include long-term interference with irrigation infrastructure and temporary interruption of irrigation schedules. These impacts would be mitigated using micro-siting, spanning, and coordination with the landowner. Long-term disturbance is estimated to be 195 acres of crops and 18 acres of irrigated agriculture. Construction disturbance is estimated to be 640 acres of crops and 58 acres of irrigated agriculture.

Willow Creek Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have an additional 2.4 miles of moderate and high impacts due to crossing irrigated agriculture (Link 4-60) and field crops (Link 4-60). All pivots could be spanned on this alternative. Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. Impacts on irrigation include long-term interference with irrigation infrastructure and temporary interruption of irrigation schedules. These impacts would be mitigated using micro-siting, spanning, and coordination with the landowner. Long-term disturbance is estimated to be 111 acres of crops and 15 acres of irrigated agriculture. Construction disturbance is estimated to be 355 acres of crops and 50 acres of irrigated agriculture.

Comments on the Draft EIS indicated that the Gum Creek Airstrip was crossed by the right-of-way of this alternative. This 1,950-foot, dirt airstrip has been used for aerial spraying since the early 1980s. It could not continue to operate with the current location of the Willow Creek Alternative. This would affect agriculture throughout the area. Additionally, because the alternative is not linear, it would be difficult for aerial operators to uniformly and efficiently spray crops.

A business owner commented on the Draft EIS that this land has an artesian well used to irrigate agriculture.

The Applicant would work with the landowners to micro-site the transmission line to mitigate impacts on this landing strip and artesian well.

Conclusions

The Applicant's Proposed Action Alternative would have the least impacts on existing agriculture in Segment 4. This alternative route does not cross irrigated agriculture. While both the Tub Mountain South and Willow Creek alternatives cross similar lengths of irrigated agriculture, the Willow Creek

Alternative would affect a landing strip used for agriculture spraying. As a result, this alternative route would have the greatest effects on existing agriculture in Segment 4.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

This section discloses impacts on important farmland, high-value soils, and CRP lands in Segment 4 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on important farmland, high-value soils, and CRP lands are presented in Table 3-351 through Table 3-353. No CRP lands would be crossed by any alternative or route variation in Segment 4. Refer also to MV-17.

Table 3-351. Important Farmland and High-Value Soils in Segment 4-Brogan (miles)

Alternative Route	Total Length (miles)	Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	High-value Soils[1,3]
Applicant's Proposed Action	40.1	0.0	7.9	0.0
Variation S4-A1	*5.9*	*0.0*	*5.1*	*0.0*
Variation S4-A2	*6.0*	*0.0*	*5.4*	*0.0*
Variation S4-A3	*6.1*	*0.1*	*5.3*	*0.0*
Tub Mountain South	40.5	2.8	9.7	3.6
Willow Creek	34.6	1.1	7.4	1.1

Table Notes:
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Table 3-352. Estimated Long-term Surface Disturbance of Important Farmland and High-Value Soils in Segment 4-Brogan (acres)

Alternative Route	Total Length (miles)	Prime Farmland if Irrigated	Farmland of Statewide Importance	High-value Soils
Applicant's Proposed Action	40.1	0	66	0
Variation S4-A1	*5.9*	*0*	*54*	*0*
Variation S4-A2	*6.0*	*0*	*51*	*0*
Variation S4-A3	*6.1*	*1*	*51*	*0*
Tub Mountain South	40.5	19	66	25
Willow Creek	34.6	8	52	8

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-353. Estimated Extent of Construction Disturbance of Important Farmland and High-Value Soils in Segment 4-Brogan (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	40.1	0	188	0
Variation S4-A1	*5.9*	*0*	*133*	*0*
Variation S4-A2	*6.0*	*0*	*134*	*0*
Variation S4-A3	*6.1*	*3*	*133*	*0*
Tub Mountain South	40.5	62	216	80
Willow Creek	34.6	25	166	25
Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.				

Applicant's Proposed Action Alternative

This alternative route would require an estimated construction disturbance of 188 acres of farmland of statewide importance and an estimated long-term disturbance of 66 acres of farmland of statewide importance. These impacts would occur generally on Links 4-1, 4-10, 4-11, 4-13, 4-25, 4-45, and 4-50. Vegetation clearing would increase the potential for soil loss due to erosion and mixing of topsoil with sub soils on prime farmland and farmland of statewide importance. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

Variations S4-A1 through S4-A3

Variation S4-A1 takes the same route as the Applicant's Proposed Action Alternative. Variation S4-A3 is the only route variation that crosses prime farmland if irrigated resulting in an estimated 1 acre of long-term surface disturbance and 3 acres of construction disturbance. Variation S4-A2 crosses the most farmland of statewide importance. Impacts associated with S4-A1 would occur on Links 41, 4-10, 4-11, and 4-13. Impacts associated with S4-A2 would occur on Links 4-1, 4-5, 4-15, and 4-17. Impacts associated with S4-A3 would occur on Links 4-3, 4-11, 4-12, and 4-17.

Tub Mountain South Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 62 more acres of prime farmland if irrigated, 28 more acres of farmland of statewide importance, and 80 more acres of high-value soils. This alternative route would require an estimated long-term disturbance of 19 more acres of prime farmland if irrigated, the same acres of farmland of statewide importance, and 25 more acres of high-value soils. These impacts would occur generally on Links 4-1, 4-5, 4-15, 4-17, 4-20, 4-30, and 4-75.

Willow Creek Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 25 more acres of prime farmland if irrigated, 22 fewer acres of

farmland of statewide importance, and 25 more acres of high-value soils. This alternative route would require an estimated long-term disturbance of 8 more acres of prime farmland if irrigated, 14 fewer acres of farmland of statewide importance, and 8 more acres of high-value soils. These impacts would occur generally on Links 4-1, 4-10, 4-11, 4-13, 4-25, 4-35, and 4-60.

Conclusions

The Tub Mountain South Alternative would have the greatest impacts on prime farmland if irrigated, farmland of statewide importance, and high-value soils in Segment 4, while the Applicant's Proposed Action would have the least. No CRP lands would be crossed in this segment by any alternatives or variations.

Livestock Grazing

This section discloses impacts on livestock grazing in Segment 4 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on livestock grazing are presented in Table 3-354. The data used to generate these results are displayed on MV-18. Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Estimated affected AUMs are based off of long-term disturbance on federal grazing allotments. Long-term impacts on AUMs would occur throughout all allotments crossed by a particular segment.

Table 3-354. Estimated Extent of Disturbance of Grazing Allotments in Segment 4—Morrow-Umatilla

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Applicant's Proposed Action	40.1	37.2	174,103	144,474	11,517	884	310	26
Variation S4-A1	*5.9*	*5.1*	*29,646*	*28,794*	*232*	*133*	*54*	*<1*
Variation S4-A2	*6.0*	*5.2*	*29,646*	*28,794*	*232*	*129*	*49*	*<1*
Variation S4-A3	*6.1*	*5.3*	*29,646*	*28,794*	*232*	*133*	*51*	*<1*
Tub Mountain South	40.5	31.5	145,876	102,406	21,915	701	215	29
Willow Creek	34.6	23.6	124,642	77,560	14,965	530	166	19

Table Notes:
[1]Data source is U.S. Forest Service and Bureau of Land Management grazing allotments datasets.
[2]Allotment miles crossed by the B2H Project 250-foot right-of-way.
[3]Active animal unit months of allotments crossed by the B2H Project centerline.
[4]Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction and long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing, including estimated AUMs affected. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description. Actual AUMs affected would be calculated and addressed during the permit renewal process.

Applicant's Proposed Action Alternative

As presented in Table 3-354, this alternative route crosses 37.2 miles of allotments (Links, 4-13, 4-25, 4-45, 4-50, 4-65, 4-70). An estimated 310 acres of long-term surface disturbance and 884 acres of construction disturbance would be expected. Construction disturbance would affect less than 1 percent of the surface area of the allotments, which could over the long term reduce forage by 26 AUMs.

Variations S4-A1 through S4-A3

Variation S4-A1 is part of the Applicant's Proposed Action Alternative. Variation S4-A2 would have the least disturbance to grazing allotments (5 acres less than S4-A1 long-term disturbance and 2 acres construction disturbance less than S4-A3). Impacts on S4-A1 would occur on Link 4-13, impacts on S4-A2 would occur on Links 4-15 and 4-17, and impacts on S4-A3 would occur on Links 4-12 and 4-17.

Tub Mountain South Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses 5.7 fewer miles of allotments resulting in an estimated 95 fewer acres of long-term surface disturbance and 183 fewer acres of construction disturbance. Construction disturbance would affect less than 1 percent of the surface area of the allotments, which could over the long term reduce forage by 3 AUMs more than the Applicant's Proposed Alternative. These impacts would occur generally on Links 4-15, 4-17, 4-20, 4-30, and 4-75.

Willow Creek Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses 13.6 fewer miles of allotments resulting in an estimated 144 fewer acres of long-term surface disturbance and 354 fewer acres of construction disturbance. Construction disturbance would affect less than 1 percent of the surface area of the allotments, which could over the long term reduce forage by 7 AUMs less than the Applicant's Proposed Alternative. These impacts would occur generally on Links 4-13, 4-25, 4-35, 4-40, 4-60, and 4-70.

Conclusions

The alternative routes and route variations cross a similar amount of grazing allotments within Segment 4. However, the Applicant's Proposed Action would result in 183 more acres of construction disturbance and 95 more acres of long-term impacts than the Tub Mountain South Alternative and 354 more acres of construction disturbance and 144 more acres of long-term disturbance than the Willow Creek Alternative, with Tub Mountain South affecting the most federal grazing allotment AUMs.

SEGMENT 5—MALHEUR

Existing Agriculture

This section discloses impacts on existing agriculture in Segment 5 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on existing agriculture are presented in Table 3-355. The data used to generate these results are displayed on MV-16.

Table 3-356 presents the estimated long-term surface disturbance associated with each alternative and route variation. Table 3-357 presents estimated construction disturbance for the alternatives and route variations in Segment 4.

Aerial and ground application of pesticides, in addition to aerial seeding could occur on any cultivated farmland in Segment 5. Impacts include obstruction of flight paths from the tower structures and conductors. There could be increased safety risks to operators navigating around tower structures and conductors. There also could be interruptions in spraying schedules as a result of construction activities, but the Applicant would coordinate with landowners to reduce these impacts. No data are available for a comparison of alternatives and route variations.

Applicant's Proposed Action Alternative

This alternative has 0.1 mile of moderate impacts due to crossing field crops (Link 5-1). Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. They would be mitigated using micro-siting and coordination with the landowner. No high impacts are expected for this alternative. Long-term disturbance is estimated to be 1 acre of field crops and construction disturbance is estimated to be 2 acres of field crops. This alternative route would have the least impacts of all alternative routes in Segment 5.

This alternative route crosses an Owyhee Irrigation District canal and lateral. Comments received on the Draft EIS indicated that this was potentially hazardous because of instability of the soils in the area. Impacts would be reduced by working with the irrigation district to micro-site around and span any infrastructure and sensitive soils.

Variations S5-A1 and S5-A2

Neither of these variations is anticipated to have moderate or high impacts.

Variations S5-B1 and S5-B2

Variation S5-B1 is part of the Applicant's Proposed Action Alternative. Impacts on the variations are anticipated to be similar, with the exception that Variation S5-B1 has no moderate or high impacts; in comparison Variation S5-B2 has 0.5 mile of moderate impacts. These impacts are due to crossing 0.4 mile of flood-irrigated field crops (Link 5-45) and 0.1 mile of fallow/idle cropland (Link 5-45). Impacts on field crops include long-term removal of crops from production and temporary interruption of planting schedules. Impacts on flood irrigation include long-term interference with the flow of water across fields and temporary interruption of irrigation schedules. These impacts would be mitigated using micro-siting, spanning, and coordination with the landowner. No high impacts are expected for this alternative. Long-term disturbance is estimated to be 2 acres of field crops and 2 acres of flood irrigation. Construction disturbance is estimated to be 8 acres of field crops and 8 acres of flood irrigation.

Variation S5-B2 crosses Owyhee Irrigation District laterals three times and a canal once, while Variation S5-B1 crosses a lateral once and a canal once. Comments received on the Draft EIS indicated that this was potentially hazardous because of instability of the soils in the area. Impacts would be reduced by working with the irrigation district to micro-site around and span any infrastructure.

Table 3-355. Inventory Data and Residual Impacts for Crop Types and Irrigated Farmland in Segment 5—Malheur

Alternative Route	Total Length (miles)	Irrigation Type (miles crossed)				Crop Type or Confined Animal Feeding Operation (miles crossed)							Overall Residual Impacts (miles crossed)		
		Dryland[1]	Center Pivot Irrigation[1]	Flood Irrigation[1]	Other Mechanized Irrigation[1]	Fallow/Idle Cropland[2]	Field Crops[2]	Fruit and Tree Nuts[2]	Grass/Pasture[2]	Vegetables[2]	Tree Farms[3]	Confined Animal Feeding Operation[4]	Low	Moderate	High
Applicant's Proposed Action	40.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	27.3	0.0	0.0	0.0	27.3	0.1	0.0
Variation S5-A1	*7.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*6.5*	*0.0*	*0.0*	*0.0*	*6.5*	*0.0*	*0.0*
Variation S5-A2	*7.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*6.8*	*0.0*	*0.0*	*0.0*	*6.8*	*0.0*	*0.0*
Variation S5-B1	*2.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*	*0.0*	*0.0*	*0.0*	*0.4*	*0.0*	*0.0*
Variation S5-B2	*2.8*	*0.0*	*0.0*	*0.4*	*0.0*	*0.1*	*0.4*	*0.0*	*1.0*	*0.0*	*0.0*	*0.0*	*1.0*	*0.5*	*0.0*
Malheur S	43.5	0.0	0.0	0.0	0.0	0.2	0.2	0.0	21.5	0.0	0.0	0.0	21.5	0.4	0.0
Malheur A	43.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	20.1	0.0	0.0	0.0	20.1	0.2	0.0

Table Notes:

[1]Data source includes cultivated farmland as seen in aerial imagery and classified as dryland or as an irrigation type. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[2]Data source includes U.S. Department of Agriculture CropScape. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[3]Data source is Boardman Tree Farm digitized from aerial imagery. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[4]Data source is Oregon Department of Agriculture confined animal feeding operations and self-reported dairies. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

Table 3-356. Estimated Long-Term Surface Disturbance of Crop Land and Irrigated Farmland in Segment 5—Malheur

Alternative Route	Total Length (miles)	Estimated Disturbance in Irrigated Farmland (acres)					Estimated Disturbance by Crop Type or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	40.4	0	0	0	0	0	0	1	0	169	0	0	0	170
Variation S5-A1	*7.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*32*	*0*	*0*	*0*	*32*
Variation S5-A2	*7.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*30*	*0*	*0*	*0*	*30*
Variation S5-B1	*2.5*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*	*0*	*0*	*0*	*3*
Variation S5-B2	*2.8*	*0*	*0*	*2*	*0*	*2*	*0*	*2*	*0*	*5*	*0*	*0*	*0*	*7*
Malheur S	43.5	0	0	0	0	0	1	1	0	144	0	0	0	147
Malheur A	43.1	0	0	0	0	0	0	1	0	125	0	0	0	126

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-357. Estimated Extent of Construction Disturbance of Crop Land and Irrigated Farmland in Segment 5—Malheur

Alternative Route	Total Length (miles)	Estimated Construction Disturbance in Irrigated Farmland (acres)					Estimated Construction Disturbance of Crop Types or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/ Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	40.4	0	0	0	0	0	0	2	0	598	0	0	0	600
Variation S5-A1	*7.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*124*	*0*	*0*	*0*	*124*
Variation S5-A2	*7.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*135*	*0*	*0*	*0*	*135*
Variation S5-B1	*2.5*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*9*	*0*	*0*	*0*	*9*
Variation S5-B2	*2.8*	*0*	*0*	*8*	*0*	*8*	*2*	*8*	*0*	*20*	*0*	*0*	*0*	*30*
Malheur S	43.5	0	0	0	0	0	4	4	0	482	0	0	0	491
Malheur A	43.1	0	0	0	0	0	0	4	0	434	0	0	0	438

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Malheur S Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have an additional 0.3 mile of moderate impacts due to crossing field crops (Link 5-30) and fallow/idle cropland (Links 5-1, 5-25). Types of impacts on field crops would be similar to those discussed for the Applicant's Proposed Action Alternative. No high impacts are expected for this alternative. Long-term disturbance is estimated to be the same disturbance of field crops as the Applicant's Proposed Action and 1 more acre of fallow/idle cropland than the Applicant's Proposed Action. Construction disturbance is estimated to be 2 more acres of field crops and 4 more acres of fallow/idle cropland than the Applicant's Proposed Action Alternative.

This alternative route crosses an Owyhee Irrigation District siphon once, which comments on the Draft EIS indicated was preferable to the Applicant's Proposed Action for reasons of safety and functionality. Impacts would be reduced by working with the irrigation district to micro-site around and span any infrastructure.

Malheur A Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would have an additional 0.1 mile of moderate impacts due to crossing field crops (Links 5-1, 5-25). Types of impacts on field crops would be similar to those discussed for the Applicant's Proposed Action Alternative. No high impacts are expected for this alternative. Long-term disturbance is estimated to be 1 acre of field crops, which is the same as the Applicant's Proposed Action and the Malheur S Alternative. Construction disturbance is estimated to be 4 acres of field crops, which is 2 more than the proposed and the same as Malheur S Alternative.

This alternative route crosses an Owyhee Irrigation District siphon once, which comments on the Draft EIS indicated was preferable to the Applicant's Proposed Action for reasons of safety and functionality.

Conclusions

All alternatives in Segment 5 avoid irrigated agriculture. With the exception of Variation S5-B2, no irrigated agriculture would be affected. Field crops would be affected similarly with each alternative, though the Applicant's Proposed Action Alternative would affect the most crops (largely grass/pasture). The Malheur A Alternative would affect the least crops (largely grass/pasture).

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

This section discloses impacts on important farmland, high-value soils, and CRP lands in Segment 5 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on important farmland, high-value soils, and CRP lands are presented in Table 3-358 through Table 3-360. No CRP lands would be crossed by any alternative or route variation in Segment 5. Refer also to MV-17.

Table 3-358. Important Farmland and High-Value Soils in Segment 5—Malheur (miles crossed)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated[1,2]**	**Farmland of Statewide Importance[1]**	**High-value Soils[1,3]**
Applicant's Proposed Action	40.4	0.0	0.1	7.0
Variation S5-A1	*7.4*	*0.0*	*0.0*	*1.5*
Variation S5-A2	*7.4*	*0.0*	*0.0*	*1.9*
Variation S5-B1	*2.5*	*0.0*	*0.0*	*1.0*
Variation S5-B2	*2.8*	*0.3*	*1.1*	*0.8*
Malheur S	43.5	0.0	0.0	3.3
Malheur A	43.1	0.0	0.0	3.0

Table Notes:
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Table 3-359. Estimated Long-term Surface Disturbance of Important Farmland and High-Value Soils in Segment 5—Malheur (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	40.4	0	1	43
Variation S5-A1	*7.4*	*0*	*0*	*7*
Variation S5-A2	*7.4*	*0*	*0*	*8*
Variation S5-B1	*2.5*	*0*	*0*	*7*
Variation S5-B2	*2.8*	*1*	*5*	*4*
Malheur S	43.5	0	0	22
Malheur A	43.1	0	0	19

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-360. Estimated Extent of Construction Disturbance of Important Farmland and High-Value Soils in Segment 5 Malheur (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	40.4	0	2	153
Variation S5-A1	*7.4*	*0*	*0*	*29*
Variation S5-A2	*7.4*	*0*	*0*	*38*
Variation S5-B1	*2.5*	*0*	*0*	*22*
Variation S5-B2	*2.8*	*6*	*22*	*16*
Malheur S	43.5	0	0	74
Malheur A	43.1	0	0	65
Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.				

Applicant's Proposed Action Alternative

This alternative route would require an estimated construction disturbance of 2 acres of farmland of statewide importance, and 153 acres of high-value soils. This alternative route would require an estimated long-term disturbance of 1 acre of farmland of statewide importance, and 43 acres of high-value soils. These impacts would occur generally on Links 5-15, 5-40, 5-50, 5-55, 5-70, and 5-75. Vegetation clearing would increase the potential for soil loss due to erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

Variations S5-A1 and S5-A2

Variation S5-A1 takes the same route as the Applicant's Proposed Action Alternative. Neither of these route variations crosses prime farmland if irrigated nor farmland of statewide importance and, thus, impacts are not expected. Compared to Variation S5-A2, this alternative route would require an estimated construction disturbance of 9 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 1 fewer acres of high-value soils. Impacts associated with Variation S5-A1 would occur on Link 5-15, and impacts associated with Variation S5-A2 would occur on Link 5-20.

Variations S5-B1 and S5-B2

Variation S5-B1 is part of the Applicant's Proposed Action Alternative. Compared to Variation S5-B2, this alternative route would require an estimated construction disturbance of 6 more acres of prime farmland if irrigated, 22 more acres of farmland of statewide importance, and 6 more acres of high-value soils. This alternative route would require an estimated long-term disturbance of 1 fewer acres of prime farmland if irrigated, 5 more acres of farmland of statewide importance, and 3 more acres of high-value soils. Impacts associated with Variation S5-B1 would occur on Links 5-50 and 5-55, and impacts associated with Variation S5-B2 would occur on Link 5-45.

Malheur S Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 2 fewer acres of farmland of statewide importance, and 79 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 1 less acre of farmland of statewide importance, and 21 fewer acres of high-value soils. These impacts would occur generally on Links 5-25, 5-30, and 5-75.

Malheur A Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route would require an estimated construction disturbance of 2 fewer acres of farmland of statewide importance, and 88 fewer acres of high-value soils. This alternative route would require an estimated 1 less acre of long-term disturbance of farmland of statewide importance and 24 fewer acres of long-term disturbance of high-value soils. These impacts would occur generally on Links 5-25, and 5-35.

Conclusions

The Applicant's Proposed Action Alternative crosses over twice the miles of high-value soils of any other alternative in Segment 5, and would have the highest impacts. Both the Malheur S and Malheur A alternatives would have similar impacts. No CRP acres would be crossed by any alternative or variation in this segment.

Livestock Grazing

This section discloses impacts on livestock grazing in Segment 5 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on livestock grazing are presented in Table 3-361. The data used to generate these results are displayed on MV-18. Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Estimated affected AUMs are based off of long-term disturbance on federal grazing allotments. Long-term impacts on AUMs would occur throughout all allotments crossed by a particular segment.

Table 3-361. Estimated Extent of Disturbance of Grazing Allotments in Segment 5—Morrow-Umatilla

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Applicant's Proposed Action	40.4	38.8	330,608	130,021	32,520	849	240	15
Variation S5-A1	*7.4*	*7.1*	*120,336*	*30,383*	*12,205*	*135*	*35*	*<1*
Variation S5-A2	*7.4*	*7.4*	*120,336*	*33,409*	*12,205*	*147*	*33*	*4*
Variation S5-B1	*2.5*	*2.0*	*96,887*	20,962	*7,084*	*45*	*15*	*<1*
Variation S5-B2	*2.8*	*0.8*	*96,887*	20,962	*7,084*	*16*	*4*	*<1*

Table 3-361. Estimated Extent of Disturbance of Grazing Allotments in Segment 5—Morrow-Umatilla

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Malheur S	43.5	42.8	305,483	124,093	27,970	958	286	22
Malheur A	43.1	42.4	305,483	124,093	27,970	917	263	20

Table Notes:
[1]Data source is U.S. Forest Service and Bureau of Land Management grazing allotments datasets.
[2]Allotment miles crossed by the B2H Project 250-foot right-of-way.
[3]Active animal unit months of allotments crossed by the B2H Project centerline.
[4]Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction and long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing, including estimated AUMs affected. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description. Actual AUMs affected would be calculated and addressed during the permit renewal process.

Applicant's Proposed Action Alternative

As presented in Table 3-361, this alternative route crosses 38.8 miles of allotments (Links 5-1, 5-5, 5-10, 5-15, 5-40, 5-50, 5-55, 5-65, 5-70, 5-75). An estimated 240 acres of long-term surface disturbance and 849 acres of construction disturbance would be expected. Area of vegetation clearing would affect less than 1 percent of the surface area of the allotments, which could over the long term reduce forage by 15 AUMs.

Variations S5-A1 and S5-A2

Variation S5-A1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 0.3 fewer miles of allotments than Variation S5-A2. Variation S5-A1 would have an estimated additional 2 acres of long-term surface disturbance and 12 fewer acres of construction disturbance. For Variation S5-A1, this could over the long term reduce forage by approximately 4 AUMs fewer than Variation S5-A2. Impacts on S5-A1 would occur on Link 5-15, and impacts on S5-A2 would occur on Link 5-20.

Variations S5-B1 and S5-B2

Variation S5-B1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 1.2 additional miles of allotments over Variation S5-B2 resulting in an estimated 11 more acres of long-term surface disturbance and 29 more acres of construction disturbance over Variation S5-B2. This could over the long term reduce forage by slightly more AUMs than S5-B2. Impacts on S5-B1 would occur on Links 5-50, 5-55, and 5-65, and impacts on S5-B2 would occur on Link 5-45.

Malheur S Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses an additional 4 miles of allotments resulting in an estimated 46 more acres of long-term surface disturbance and 109

more acres of construction disturbance. Construction disturbance would affect less than 1 percent of the surface area of the allotments, but could result in long-term reduced forage by 7 AUMs more than the Applicant's Proposed Action Alternative. These impacts would occur generally on Links 5-1, 5-5, 5-25, 5-30, and 5-75.

Malheur A Alternative

Compared to the Applicant's Proposed Action Alternative, this alternative route crosses an additional 3.6 miles of allotments resulting in an estimated 23 more acres of long-term surface disturbance and 68 more acres of construction disturbance. Construction disturbance would affect less than 1 percent of the surface area of the allotments, but could result in long-term reduced forage by 5 AUMs more than the Applicant's Proposed Action Alternative. These impacts would occur generally on Links 5-1, 5-5, 5-25, and 5-35.

Conclusions

The alternative routes and route variations cross a similar amount of grazing allotments within Segment 5. However, the Applicant's Proposed Action Alternative would affect fewer acres over the long-term impacts and have result in fewer reduction in forage than the Malheur S and Malheur A alternatives.

SEGMENT 6—TREASURE VALLEY

Existing Agriculture

This section discloses impacts on existing agriculture in Segment 6 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on existing agriculture are presented in Table 3-362. The data used to generate these results are displayed on MV-16.

Table 3-363 presents the estimated long-term surface disturbance associated with each alternative and route variation. Table 3-364 presents estimated construction disturbance for the alternatives and route variations in Segment 6.

Aerial and ground application of pesticides, in addition to aerial seeding could occur on any cultivated farmland in Segment 6. Impacts include obstruction of flight paths from the tower structures and conductors. There could be increased safety risks to operators navigating around tower structures and conductors. There also could be interruptions in spraying schedules as a result of construction activities, but the Applicant would coordinate with landowners to reduce these impacts. No data are available for a comparison of alternatives and route variations for spraying.

Applicant's Proposed Action Alternative

This alternative has 0.3 mile of moderate impacts due to crossing flood irrigation at Link 6-35. Impacts on flood irrigation include long-term interference with the flow of water across fields and temporary interruption of irrigation schedules. These impacts would be mitigated using micro-siting and coordination with the landowner. No high impacts are expected for this alternative.

Table 3-362. Inventory Data and Residual Impacts for Crop Types and Irrigated Farmland in Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Irrigation Type (miles crossed)				Crop Type or Confined Animal Feeding Operation (miles crossed)							Overall Residual Impacts (miles crossed)		
		Dryland[1]	Center Pivot Irrigation[1]	Flood Irrigation[1]	Other Mechanized Irrigation[1]	Fallow/Idle Cropland[2]	Field Crops[2]	Fruit and Tree Nuts[2]	Grass/Pasture[2]	Vegetables[2]	Tree Farms[3]	Confined Animal Feeding Operation[4]	Low	Moderate	High
Applicant's Proposed Action	28.0	0.0	0.0	0.3	0.0	0.0	0.2	0.0	11.9	0.0	0.0	0.0	11.8	0.3	0.0
Variation S6-A1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*3.6*	*0.0*	*0.0*	*0.0*	*3.6*	*0.0*	*0.0*
Variation S6-A2	*8.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*5.1*	*0.0*	*0.0*	*0.0*	*5.1*	*0.0*	*0.0*
Variation S6-B1	*14.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*5.8*	*0.0*	*0.0*	*0.0*	*5.8*	*0.0*	*0.0*
Variation S6-B2	*14.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*4.2*	*0.0*	*0.0*	*0.0*	*4.2*	*0.0*	*0.0*

Table Notes:

[1]Data source includes cultivated farmland as seen in aerial imagery and classified as dryland or as an irrigation type. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[2]Data source includes U.S. Department of Agriculture CropScape. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[3]Data source is Boardman Tree Farm digitized from aerial imagery. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

[4]Data source is Oregon Department of Agriculture confined animal feeding operations and self-reported dairies. Resource inventory is crossed by the 250-foot right-of-way for each alternative route and route variation.

Table 3-363. Estimated Long-Term Surface Disturbance of Crop Land and Irrigated Farmland in Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Estimated Disturbance in Irrigated Farmland (acres)					Estimated Disturbance by Crop Type or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	28.0	0	0	7	0	7	0	4	0	261	0	0	0	265
Variation S6-A1	*9.3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*80*	*0*	*0*	*0*	*80*
Variation S6-A2	*8.9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*112*	*0*	*0*	*0*	*112*
Variation S6-B1	*14.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*126*	*0*	*0*	*0*	*126*
Variation S6-B2	*14.1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*92*	*0*	*0*	*0*	*92*

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Table 3-364. Estimated Extent of Construction Disturbance of Crop Land and Irrigated Farmland in Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Estimated Construction Disturbance in Irrigated Farmland (acres)					Estimated Construction Disturbance of Crop Types or Confined Animal Feeding Operation (acres)							
		Dryland	Center Pivot Irrigation	Flood Irrigation	Other Mechanized Irrigation	Total Irrigated Farmland Disturbance	Fallow/ Idle Cropland	Field Crops	Fruit and Tree Nuts	Grass/Pasture	Vegetables	Tree Farms	Confined Animal Feeding Operation	Total Crop or Confined Animal Feeding Operation Disturbance
Applicant's Proposed Action	28.0	0	0	0	0	0	0	2	0	598	0	0	0	600
Variation S5-A1	*9.3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*124*	*0*	*0*	*0*	*124*
Variation S5-A2	*8.9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*135*	*0*	*0*	*0*	*135*
Variation S5-B1	*14.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*9*	*0*	*0*	*0*	*9*
Variation S5-B2	*14.1*	*0*	*0*	*8*	*0*	*8*	*2*	*8*	*0*	*20*	*0*	*0*	*0*	*30*

Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.

Variations S6-A1 and S6-A2

Variation S6-A1 is part of the Applicant's Proposed Action Alternative. Neither variation is expected to have moderate or high impacts.

Variations S6-B1 and S6-B2

Variation S6-B1 is part of the Applicant's Proposed Action Alternative. Neither variation is expected to have moderate or high impacts.

Conclusion

The only alternative in this area of Segment 6, the Applicant's Proposed Action Alternative, would have impacts on existing irrigated agriculture. Effects would occur near the Hemingway Substation. With construction of the B2H Project, these impacts could not be avoided as there is no variation in this area that would avoid this irrigated farmland.

Important Farmland, High-Value Soils, and Conservation Reserve Program Lands

This section discloses impacts on important farmland, high-value soils, and CRP lands in Segment 6 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on important farmland, high-value soils, and CRP lands are presented in Table 3-365 through Table 3-367. Refer also to MV-17. No CRP lands are crossed by any alternative route or route variation in Segment 6.

Table 3-365. Important Farmland and High-Value Soils in Segment 6—Treasure Valley (miles crossed)

Alternative Route	Total Length (miles)	Prime Farmland if Irrigated[1,2]	Farmland of Statewide Importance[1]	High-value Soils[1,3]
Applicant's Proposed Action	28.0	5.7	2.6	5.4
Variation S6-A1	*9.3*	*0.7*	*0.0*	*0.6*
Variation S6-A2	*8.9*	*0.9*	*0.5*	*1.4*
Variation S6-B1	*14.4*	*2.5*	*2.6*	*2.2*
Variation S6-B2	*14.1*	*1.4*	*3.0*	*1.6*

Table Notes:
[1]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data
[2]This includes prime farmland if irrigated and prime farmland if irrigated and drained
[3]Data source is the Natural Resources Conservation Service SSURGO/STATSGO2 soils data irrigated and nonirrigated capability classes I-II, prime farmland if irrigated, and prime farmland if irrigated and drained.

Table 3-366. Estimated Long-term Surface Disturbance of Important Farmland and High-Value Soils in Segment 6- Treasure Valley (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	28.0	35	16	33
Variation S6-A1	*9.3*	*5*	*0*	*4*
Variation S6-A2	*8.9*	*6*	*3*	*9*
Variation S6-B1	*14.4*	*15*	*16*	*13*
Variation S6-B2	*14.1*	*9*	*20*	*10*
Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.				

Table 3-367. Estimated Extent of Construction Disturbance of Important Farmland and High-Value Soils in Segment 6- Treasure Valley (acres)				
Alternative Route	**Total Length (miles)**	**Prime Farmland if Irrigated**	**Farmland of Statewide Importance**	**High-value Soils**
Applicant's Proposed Action	28.0	125	57	118
Variation S6-A1	*9.3*	*15*	*0*	*13*
Variation S6-A2	*8.9*	*20*	*11*	*31*
Variation S6-B1	*14.4*	*54*	*56*	*48*
Variation S6-B2	*14.1*	*31*	*66*	*35*
Table Note: Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description.				

Applicant's Proposed Action Alternative

This alternative route would require an estimated construction disturbance of 125 acres of prime farmland if irrigated, 57 acres of farmland of statewide importance, and 118 acres of high-value soils. This alternative route would require an estimated long-term disturbance of 35 acres of prime farmland if irrigated, 16 acres of farmland of statewide importance, and 33 acres of high-value soils. These impacts would occur generally on Links 6-20, 6-25, and 6-35. Vegetation clearing would increase the potential for soil loss due to erosion and mixing of topsoil with sub soils on prime farmland, farmland of statewide importance, and high-value soils. Long-term effects could include permanent conversion of these soils to nonagricultural uses where permanent B2H Project facilities such as tower structures would be located.

Variations S6-A1 and S6-A2

Variation S6-A1 is part of the Applicant's Proposed Action Alternative. Impacts for the variations are anticipated to be similar, however when compared to Variation S6-A2; this alternative route would require an estimated construction disturbance of 5 fewer acres of prime farmland if irrigated, 11 fewer

acres of farmland of statewide importance, and 18 fewer acres of high-value soils. This alternative route would require an estimated long-term disturbance of 1 fewer acre of prime farmland if irrigated, 3 fewer acres of farmland of statewide importance, and 5 fewer acres of high-value soils. Impacts associated with Variation S6-A1 would occur on Link 6-20, and impacts associated with Variation S6-A2 would occur on Link 6-15.

Variations S6-B1 and S6-B2

Variation S6-B1 is part of the Applicant's Proposed Action Alternative. Impacts on the variations are anticipated to be similar, however, when compared to Variation S6-B2; this alternative route would require an estimated construction disturbance of 23 additional acres of prime farmland if irrigated, 10 fewer acres of farmland of statewide importance, and 13 more acres of high-value soils. This alternative route would require an estimated long-term disturbance of 6 additional acres of prime farmland if irrigated, 4 fewer acres of farmland of statewide importance, and 3 more acres of high-value soils. Impacts associated with Variation S6-B1 would occur on Link 6-25, and impacts associated with Variation S6-B2 would occur on Link 6-30. Issues associated with vegetation clearing and long-term effects would be similar to those discussed for the Applicant's Proposed Action Alternative.

Conclusion

Among the variations in Segment 6, Variation S6-A2 and Variation S6-B1 would have the greatest impacts on prime farmland if irrigated, farmland of statewide importance, and high-value soils. No CRP acres would be crossed in this segment.

Livestock Grazing

This section discloses impacts on livestock grazing in Segment 6 by alternative route and route variation. The results of the analysis to assess the impacts of the B2H Project on livestock grazing are presented in Table 3-368. The data used to generate these results are displayed on MV-18. Refer also to Appendix G for more information regarding allotments crossed by each alternative route and route variation. Estimated affected AUMs are based off of long-term disturbance on federal grazing allotments. Long-term impacts on AUMs would occur throughout all allotments crossed by a particular segment.

Table 3-368. Estimated Extent of Disturbance of Grazing Allotments in Segment 6- Treasure Valley

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Applicant's Proposed Action	28.0	24.6	171,295	146,011	13,458	539	153	9
Variation S6-A1	*9.3*	*8.4*	*84,949*	*41,399*	*7,029*	*186*	*60*	*4*
Variation S6-A2	*8.9*	*6.6*	*84,949*	*41,399*	*7,029*	*145*	*44*	*2*

Table 3-368. Estimated Extent of Disturbance of Grazing Allotments in Segment 6- Treasure Valley

Alternative Route	Total Length (miles)	Allotment/ Pasture Miles[1,2]	Total Acres of Allotments[1]	Total Acres of Pastures[1,2]	Active Animal Unit Months[1,3]	Estimated Construction Disturbance[1,4] (acres)	Estimated Long-term Surface Disturbance (acres)[1,4]	Estimated Animal Unit Months Affected (long term)[4,5]
Variation S6-B1	*14.4*	*13.5*	*91,626*	91,626	*7,169*	*293*	*82*	*4*
Variation S6-B2	*14.1*	*13.6*	*97,837*	92,966	*7,793*	*298*	*88*	*5*

Table Notes:
[1]Data source is U.S. Forest Service and Bureau of Land Management grazing allotments datasets.
[2]Allotment miles crossed by the B2H Project 250-foot right-of-way.
[3]Active animal unit months of allotments crossed by the B2H Project centerline.
[4]Additional analysis was completed for each of the resources in the Agriculture section. This analysis was to estimate the acreage of construction and long-term surface disturbance of existing agriculture, important farmland and high-value soils, and livestock grazing, including estimated AUMs affected. However, because the alternative routes have not been engineered, these acreages are predictive and for comparison purposes only. They are based off typical features of a 500-kV transmission line as described in the Project Description. Actual AUMs affected would be calculated and addressed during the permit renewal process.

Applicant's Proposed Action Alternative

As presented in Table 3-368, this alternative route crosses 24.6 miles of allotments (Links 6-1, 6-10, 6-20, 6-25, 6-35). An estimated 153 acres of long-term surface disturbance and 539 acres of construction disturbance would be expected. Area of vegetation clearing would affect less than 1 percent of the surface area of the allotments, which could over the long term reduce forage by 9 AUMs.

Variations S6-A1 and S6-A2

Variation S6-A1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 1.8 additional miles of allotments over Variation S6-A2 resulting in an estimated additional 16 acres of long-term surface disturbance and 41 acres of construction disturbance. Variation S6-A1 could reduce forage by 2 AUMs more than Variation S6-A2. Impacts on S6-A1 would occur on Links 6-10 and 6-20, and impacts on S6-A2 would occur on Links 6-5 and 6-15.

Variations S6-B1 and S6-B2

Variation S6-B1 is part of the Applicant's Proposed Action Alternative. This route variation crosses 0.1 fewer miles of allotments compared to Variation S6-B2 resulting in an estimated 6 fewer acres of long-term surface disturbance and 5 fewer acres of construction disturbance. Variation S6-B2 could reduce forage by 1 AUM more than Variation S6-B1. Impacts on S6-B1 would occur on Link 6-25, and impacts on S6-A2 would occur on Link 6-30.

Conclusion

The route variations in Segment 6 cross a similar amount of grazing allotments within Segment 6. Variations S6-A2 and S6-B1 would affect fewer acres of AUMs in Segment 6.

This page intentionally left blank.

3.2.8 RECREATION

3.2.8.1 INTRODUCTION

This section describes recreation resources analyzed for the B2H Project. The regulatory framework, issues identified for analysis, methods, affected environment and environmental consequences are described in the following section.

3.2.8.2 REGULATORY FRAMEWORK

The BLM manages land uses on public lands, including recreational activities, through adoption and implementation of RMPs. The B2H Project would be located on BLM-administered lands managed under three RMPs: the Baker RMP and SEORMP in Oregon and the Owyhee RMP in Idaho.

BUREAU OF LAND MANAGEMENT

Baker Resource Management Plan

The Baker RMP (BLM 1989) includes provisions to protect or enhance cultural resources, soil, water, botanical resources, visual resources, recreational opportunities, and other resources. OHV designations were approximately 287,611 acres open, 138,042 acres limited, and 4,101 acres closed. In 2015, these allocations were amended by the Greater Sage-Grouse Resource Management Plan Amendment and have changed to approximately 81,830 acres open, 319,853 acres limited to designated routes, and 30,834 acres closed to OHV use.[2] The management direction for recreation in the Baker RMP states:

Provide or enhance recreational opportunities for hunting, fishing, swimming, floating, boating, hiking, and sightseeing. Implement and develop site specific management plans for Special Recreation Management Areas; and the Extensive Recreation Management Area that contains high recreational values. (BLM 1989)

The Baker RMP also identifies Special Recreation Management Areas and Extensive Recreation Management Areas for priority recreation management.

The BLM is revising the RMP for the Baker Field Office management area. A Draft RMP/EIS was issued in October 2011 (BLM 2011) and is available online. The draft RMP identifies 6 alternative management scenarios, and it is likely that management direction for recreational activities may change on adoption of the revised RMP. Depending on the timing of the RMP revision, the regulatory framework for recreation as it relates to the B2H Project may change.

Southeastern Oregon Resource Management Plan

The SEORMP (BLM 2002) designates public recreational lands within the jurisdiction of the RMP into six Recreation Opportunity Spectrum (ROS) classes: primitive, semi-primitive non- motorized, semi-

[2]The OHV management designation numbers used for the Baker Field Office are approximate based on current BLM ownership lands, and have been updated based on the Sage-Grouse RMP Amendments. The data used for this analysis does not include lands withdrawn from BLM for use by other federal agencies.

primitive motorized, roaded natural, rural, and urban. The ROS is a recreation management tool developed by the USFS in the early 1980s to manage and administer natural settings for specific visitor experiences. The ROS management approach also is used by the BLM in some RMPs. The ROS class areas are mapped, and the ROS classes provide descriptions of the desired visitor recreational experience in the class area and a benchmark for analyzing the effects of the B2H Project on recreation. Additional information about ROS recreation management is provided in the discussion of the Wallowa-Whitman LRMP.

The SEORMP established the Owyhee River below the Dam special recreation management area (SRMA).

Of the lands managed in the SEORMP area, OHV designations were approximately 2,615,066 acres open, 2,004,396 acres limited to designated routes, and 15,826 acres closed. In 2015, these designations were amended by the Oregon Greater Sage-Grouse Approved Resource Management Plan Amendment and have changed to approximately 359,542 acres open, 4,236,406 acres limited to designated routes, and 15,828 closed to OHV use.

Oregon Greater Sage-Grouse Approved Resource Management Plan Amendment

The purpose of this plan was to amend eight eastern Oregon Resource Management Plans (Andrews, Baker, Brothers LaPine, Lakeview, Southeastern Oregon, Steens, Three Rivers, and Upper Deschutes) to identify and incorporate appropriate conservation measures to conserve, enhance, and/or restore GRSG habitat by reducing, eliminating, or minimizing threats to that habitat. It was identified in this plan's Final EIS that recreation could pose a threat to Greater Sage-Grouse and its habitat. Therefore, objectives were developed to manage OHVs to conserve Greater Sage-Grouse and its habitat (BLM 2015)

Owyhee Resource Management Plan

The Owyhee RMP (BLM 1999) identifies seven objectives for recreation management, and accompanying management actions and allocations. The seven recreation objectives include:

- RECT-1—Provide for off-highway motor vehicle use on public lands while protecting sensitive resource values.
- RECT-2—Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.
- RECT-3—Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.
- RECT-4—Provide for high-quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

- RECT-5—Develop a trail system that provides a range of motorized and non-motorized recreation opportunities for the public's enjoyment of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural settings.
- RECT-6—Pursue increased public access opportunities in motorized and non-motorized settings through the acquisition of fee titles or recreational easements (willing landowners only).
- RECT-7—Retain at least 10 percent of the Owyhee Field Office in a primitive recreational opportunity spectrum setting.

The Owyhee RMP, the Owyhee Omnibus Bill, and the Idaho and Southwestern Montana Greater Sage-Grouse ARMPA established guidance for managing a broad spectrum of OHV designations (194 acres open, 1,000,791 limited, and 258,904 are closed).

U.S. Forest Service

The USFS manages land uses, including recreational uses, on National Forest System lands through adoption and implementation of LRMPs. The Proposed Action and several alternatives would be located on lands managed under the Wallowa-Whitman LRMP.

Wallowa-Whitman National Forest Land and Resource Management Plan

The Wallowa-Whitman National Forest provides a wide variety of recreation activities, such as snowmobiling, skiing, hiking, horseback riding, and camping. The Wallowa-Whitman National Forest LRMP establishes forest-wide multiple-use goals and objectives and standards and guidelines and sets prescriptions, standards, and guidelines for each management area identified in the plan. The LRMP also establishes and maps five ROS classes: primitive, semi-primitive non-motorized, semi-primitive motorized, roaded natural, and rural (USFS 1990).

Bureau of Reclamation

Reclamation's RMPs provide a guide for creating a balance for resource development, recreation, and protection of natural and cultural resources for the lands and waters they manage. Several alternatives would be located on lands managed under Reclamation's 1994 Owyhee Reservoir RMP.

Owyhee Reservoir Resource Management Plan

The Owyhee Reservoir RMP (Reclamation 1994) defines the resource management activities and guidelines needed to preserve and protect the existing land and water resources administered by the Reclamation in the vicinity of the Owyhee Reservoir in Malheur County, Oregon. The RMP planning area includes approximately 26,190 acres of land and 12,740 acres of water surface (at full-pool elevation of 2,670 feet) comprising lands adjacent to the Owyhee Reservoir and parts of the Owyhee River system above and below the reservoir.

Recreation opportunities consist of land and water-based activities primarily during the summer. Land based recreation opportunities consist of hunting, camping, hiking, OHV use, wildlife observation, picnicking, and rock hounding. Water-based recreation opportunities include fishing, motorized and whitewater boating, windsurfing, and swimming.

The RMP was developed in cooperation with several other agencies to balance desired public recreational uses of the Reclamation lands and waters with the protection and improvement of existing resources specific to the Owyhee Reservoir study area. Land-use agreements have allowed for the establishment of the Owyhee State Park, the Lake Owyhee Resort, and the Pelican Point Airstrip along with other recreational activity sites within the RMP area.

STATE AND LOCAL GOVERNMENTS

State and local governments frequently include recreation elements in their land-use plans and a variety of permits, licenses and regulations address recreational activities statewide. This includes recreational activities such as hunting, fishing, boats and recreational vehicles. For example, before the Oregon Department of Energy will grant a site certificate, the Council must find that a facility will not significantly adversely affect important recreational opportunities, including recreation opportunities on public lands.

3.2.8.3 ISSUES IDENTIFIED FOR ANALYSIS

During scoping and review of the Draft EIS, issues were raised by the public and agencies. The issues and information related to potential impacts on recreation resources are included below and were used to guide the focus and level of detail of the NEPA analysis.

- Will there be economic effects on recreation and tourism? (refer to Section 3.2.17)
- Would there be any effects on recreational facilities?
- Would any recreation activities change?
- Will there be economic impacts on the Baker City community and on the community's economic development potential as a premier outdoor recreation and tourism center? (refer to Section 3.2.17)
- Will there be impacts on the Blue Mountain Heritage Trails network regional economic development initiative and on the Base Camp Baker branding and economic development program now under way? (refer to Section 3.2.17)
- Will the B2H Project adversely affect the BLM National Historic Oregon Trail Interpretive Center? (also refer to Sections 3.2.15 and 3.2.17)
- Would there be any changes in hunting and fishing activities, including subsistence hunting and fishing?

3.2.8.4 METHODS

The general study methods used to analyze the impacts of the B2H Project in this EIS are described in Section 3.1.3. This section discusses how the study methods are applied to assess the impacts of the B2H Project on recreation.

DATA SOURCES

The analyses were conducted using the best available spatial data. Data sources include:

- Trails data obtained from BLM, NPS, USFS and Idaho Parks and Recreation (IDPR)
- Scenic Byway and Backway data obtained from BLM, Oregon Department of Transportation, and Washington Department of Transportation
- Recreation Sites data obtained from BLM, USFS, IDPR, Morrow County, LDS Church, and Logan Simpson Design
- Hunting Area data obtained from IDPR, ODFW, and Morrow County
- ERMAs and SRMAs obtained from BLM
- State Parks obtained from Oregon Parks and Recreation Department (OPRD)
- ROS data obtained from BLM and USFS
- OHV Designation data obtained from BLM

MV-19 show inventoried recreational resources in the study corridor for recreation resources.

ANALYSIS AREA

The analysis area for recreational resources is a 1-mile-wide study corridor (i.e., 0.5 mile on each side of the alternative route centerlines). The study corridor includes sites for substations, communication sites, multiple-use areas, and fly yards.

Dispersed Recreation

Public lands provide a broad spectrum of outdoor opportunities that afford visitors the freedom of recreational choice, self-discovery and challenge. Public lands in Oregon and Idaho receive considerable recreational use in the form of dispersed, unstructured activities outside designated-use areas. Dispersed recreational activities are activities that occur on public lands but are not located at developed sites or locations. These dispersed activities include OHV use, camping, hunting, fishing, touring historic trails, sightseeing, pleasure driving, birding, rock hounding, photography, picnicking, hiking, mountain biking, snowmobiling, rafting, power boating, and general water play. This wide range of activities is possible because land within the study corridor is generally accessible and offers a variety of settings suitable for different recreational activities. Below lists some of the types of dispersed recreation throughout the study corridor:

Camping

Dispersed camping is located predominately near existing trails or roads and do not have permanent infrastructure in place (e.g., restrooms, running water, etc.). Short-term effects on dispersed camping from construction activities would include visual, noise, dust, and vehicle emission impacts from construction equipment and restriction or closure of campsite access points. Long-term effects generally would be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line.

Non-Motorized Recreation Users

Non-motorized users include hikers, backpackers, mountain bikers, horseback riders, and individuals participating in geo-caching. Non-motorized users are generally drawn to disperse recreation areas with little evidence of human presence. Trail systems allow for non-motorized users to access disperse recreation areas. Short-term effects on non-motorized users would include restriction or temporary closure of access to trails and associated facilities (e.g., campgrounds, trailhead facilities, restrooms, etc.), as well as a temporary increase of dust, vehicle emissions, visual, and noise impacts from construction equipment and activities. Long-term effects from the B2H Project on non-motorized users could include views influenced or dominated by the B2H Project infrastructure. Occasional noise and dust may occur during maintenance activities on the transmission line.

Hunting in the study corridor varies by season and location. Small and large game hunting occurs at different times throughout the year as permitted by the ODFW and IDFG. All recreational uses in the study corridor are variable in terms of season of use or location. Hunting areas located within the study corridor include Fur Mountain Access Area, Glass Hill Access Area, M.R. King Ranches Access Area, and Troy Ranches Access Area. Refer to Section 3.2.12 for further discussion related to visual impacts from the B2H Project to these areas.

In addition to the dispersed recreation activities described above, subsistence hunting and fishing (traditional foods/first foods) also occur in the study corridor. The CTUIR DNR adopted the following mission:

> To protect, restore, and enhance the First Foods – water, salmon, deer, cous, and huckleberry – for the perpetual cultural, economic, and sovereign benefit of the CTUIR. We will accomplish this utilizing traditional ecological and cultural knowledge and science to inform: (1) population and habitat management goals and actions; and (2) natural resource policies and regulatory mechanisms.

Refer to Sections 3.2.2 through 3.2.6, Section 3.2.13, and Section 3.2.17 for further discussion related to the hunting and fishing treaty rights of tribes throughout the B2H Project area.

Off-Highway Vehicle Use/Trails

The non-highway road networks within the study corridor comprise a series of county roads, BLM- and USFS-maintained roads, private (ungated) roads, 2-track routes, two-wheel trails, and snowmobile trails. The BLM categorizes travel routes on public lands in three categories:

- Road – A linear route declared a road by the owner, managed for low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.
- Primitive Road – A linear route managed for use by four-wheel-drive or high clearance vehicles. Primitive roads do not normally meet any BLM road design standards.
- Trail – A linear route managed for human-powered, stock, or off-highway vehicle forms of transportation, or for historical or heritage values. Trails are generally not managed for use by four-wheel-drive or high clearance vehicles.

These travel routes are used for both recreational and non-recreational purposes.

Typical recreational OHV activities within the study corridor include trail competitions, recreational all-terrain vehicle and motorcycle trail riding, and snowmobiling.

Non-recreational OHV use includes energy development, and land management activities. OHVs also are used for the noncommercial collection of decorative rock and native plant materials. Employees of government agencies, ranchers, timber companies, energy companies, and utility providers are permitted users who use OHVs to access and maintain the infrastructure required for the continued operation and maintenance of their facilities. OHVs are used for range inspections, vegetation treatments, surveying and mapping, inventories, monitoring, fire suppression, project construction, and maintenance.

The OHV designations for BLM-managed lands are determined through travel management planning and are incorporated into their RMPs. BLM's OHV designations are defined as follows (43 CFR 8342.1):

- Open. An area where all types of vehicle use is permitted at all times.
- Limited. An area restricted at certain times, in certain areas, and/or to certain vehicular use. These restrictions may be of any type, but can generally be accommodated in the following categories: numbers of vehicles; types of vehicles; time of season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions.
- Closed. An area where off-road vehicle use is prohibited. Use of off-road vehicles in closed areas may be allowed for certain reasons but must be approved by the authorized officer.

Similarly the National Forest System lands managed under the 1990 Wallowa-Whitman LRMP are designated as open, closed or limited use (by motor vehicle type, or season of use).

Reclamation's Owyhee Reservoir RMP restricts motor vehicle access to designated roads, parking areas, campgrounds, and other specific recreation areas (Reclamation 1994). GIS data were not obtained for OHV use on Reclamation-managed lands, but the Applicant's Proposed Action Alternative and other alternatives and route variations do not cross Reclamation-managed lands in areas closed to motorized travel.

Travel by snowmobiles is permitted in designated areas on BLM-managed and National Forest System lands (unless otherwise specifically limited or closed to snowmobiles) if they are operated in a responsible manner without damaging the vegetation or harming wildlife.

Non-motorized trails also occur in the study corridor and allow for users such as horseback riding, hiking, and mountain biking, as well as cross-country skiing in the winter months. Non-motorized trails tend to be in areas that allow the user to be in a natural setting with few human modifications.

Recreation Areas and Parks

Recreation areas and parks occur within the study corridor. These areas are federally, state, city, or privately managed for a variety of recreation activities, including camping, picnic site, etc.

BLM- and USFS-Designated Recreation Opportunity Spectrum Areas

ROS designations are used in the BLM Owyhee and SEORMPs and the Wallowa- Whitman National Forest LRMP to identify the level of a natural-appearing landscape, level of motorized use, and development level of structures that a recreationalist would expect to encounter on federal lands. The ROS management approach is used by the USFS (and in some BLM plans) to provide a variety of opportunities for recreationists through the allocation and planning of recreational resources, inventory of recreational resources, estimation of the consequences of management decisions on recreational opportunities, and matching experiences recreationists desire with available opportunities (Clark and Stankey 1979). The basic assumption underlying the ROS is that quality in outdoor recreation is best ensured through a diverse set of opportunities. The ROS consists of 7 major classes for recreation use: urban, rural, roaded natural, roaded modified semi-primitive non-motorized, semi-primitive motorized, and primitive. The ROS classes that are present within the study corridor are briefly described as follows (Clark and Stankey 1979):

Primitive—this class is an unmodified environment generally greater than 5,000 acres and generally located at least 3 miles from all roads and other motorized travel routes. A very low interaction among users (generally less than 3 group encounters per day) results in a very high probability of experiencing solitude, freedom, closeness to nature, tranquility, self- reliance, challenge, and risk. The evidence of other users is low. Restrictions and controls are not evident after entering the land unit. Motorized use is rare. Developments are not appropriate in areas classified as primitive.

Semi-Primitive Non-Motorized—This class is a natural or natural-appearing environment generally greater than 2,500 acres and generally located at least 0.5 mile (greater or fewer depending on the terrain and vegetation but not less than 0.25 miles) but not farther than 3 miles from all roads and other motorized travel routes. The concentration of users is low (generally less than 10 group encounters per day), but there is often evidence of other users. There is a high probability of experiencing solitude, freedom, closeness to nature, tranquility, self-reliance, challenge, and risk. There is a minimum of subtle, on-site controls. No roads are present in the area. Developments are not appropriate in areas classified as semi-primitive non-motorized.

Semi-Primitive Motorized—This class is a natural or natural-appearing environment generally greater than 2,500 acres and generally located within 0.5 mile of primitive roads and other motorized travel routes used by motor vehicles but not closer than 0.5 mile (greater or fewer depending on the terrain and vegetation but not less than 0.25 miles) from better-than- primitive roads and other motored travel routes. Developments may be evident but should be natural-appearing in areas designated as semi-primitive motorized, but should not dominate. The concentration of users is low (generally less than 10 group encounters per day), but there is often evidence of other users. There is a moderate probability of experiencing solitude, closeness to

nature, and tranquility along with a high degree of self-reliance, challenge, and risk in using motorized equipment. Local roads may be present, or there may be extensive boat traffic along shorelines.

Roaded Natural—Resource modification and use are evident in this predominantly naturally appearing environment generally occurring within 0.5 mile (greater or fewer depending on terrain and vegetation but not less than 0.25 miles) from better-than-primitive roads and other motorized travel routes. Roads and other motor vehicle developments are permitted when consistent with the recreation experience expected in the area. Developments may dominate the view in areas classified as roaded natural. Interactions among users may be moderate to high (generally less than 20 group encounters per day), with evidence of other users prevalent. There is an opportunity to affiliate with other users in developed sites, with some chance for privacy. Self- reliance on outdoor skills is only of moderate importance, with little opportunity for challenge and risk. Motorized use is allowed.

Roads and other developments would not be consistent with the primitive and semi- primitive non-motorized ROS designations.

Scenic Roads

There are a number of scenic roads within the study corridor. The scenic roads include scenic byways, backcountry byways, and a scenic tour route. The roads have been designated by federal or state agencies and are generally roads that have historic, recreational, scenic, or other qualities that make them attractive for recreationists and others interested in driving for pleasure. The locations of scenic byways and descriptions of visual effects are discussed in Section 3.2.12.

In addition to the byways above, the Lewis and Clark auto tour route also is within the study corridor. The Lewis and Clark National Historic Trail is approximately 3,700 miles long and connects 11 different states, with visitors able to follow the approximate route by using a variety of transportation methods and interpretative means (NPS 2013) The Oregon portion of the auto tour is within the study corridor. Refer to Section 3.2.15 for more information regarding the Lewis and Clark National Historic Trail and Auto Tour.

Special Recreation Management Areas and Extensive Resource Management Areas

The BLM designates SRMAs and ERMAs in RMPs. Recreation area management plans are developed for each SRMA and ERMA in accordance with BLM Manual 8322, *Recreation Area Management Plans* (BLM 2011).

Impact Assessment and Mitigation Planning

Criteria for Assessing Level of Impacts

Criteria were developed to assess the level of potential effects on recreation resources associated with implementation of the B2H Project (Table 3-369). The assessment of impacts was based on the

relationship between the level of a potential effect of each use to estimated disturbance associated with the B2H Project construction, operation, and maintenance. Criteria for assessing aesthetic impacts on views from recreation areas (i.e., day use areas, SRMAs, state parks) are described in Section 3.2.12.

Table 3-369. Criteria For Assessing Level of Recreation Impacts on Recreation Resources

Level of Impacts	Description
High	• Areas where the B2H Project would conflict physically with any designated recreation area (i.e., right-of-way crosses use area) • Areas where the B2H Project would conflict with any applicable adopted management prescription or goal of the affected land-managing agency (e.g., day use area)
Moderate	• Areas where the B2H Project would create an indirect conflict with a recreational use or designation (i.e., where new or improved access to a recreation use area would be created) • Areas where the transmission line would require expansion of an existing right-of-way in a designated recreation area
Low	• Areas where recreation area management prescription is compatible with a transmission line

Effects Analysis

Assessment of Initial Impacts

To determine initial impacts that could result from implementation of the B2H Project, the levels of potential effects on recreation resources were assessed based on the compatibility of the recreation resource with the B2H Project, as reflected in the criteria presented in Table 3-369.

Mitigation Planning and Effectiveness

In addition to the design features of the B2H Project for environmental protection that are part of the B2H Project description (Table 2-7); selective mitigation measures were developed to minimize adverse impacts on recreation resources. Below provides the selective mitigation measures applied to recreation resources.

- Selective Mitigation Measure 2: Use Existing Access and/or Crossing for Sensitive Resources Avoidance Applied would be implemented to reduce impacts on the recreation experience from new access to recreation areas
- Selective Mitigation Measure 6: Limit New or Improved Accessibility to Areas Previously Inaccessible would be applied to reduce impacts on recreation areas, especially areas with sensitive recreation resources (i.e., non-motorized trails, state parks)
- Selective Mitigation Measure 8: Span and/or Avoid Sensitive Features would be implemented to avoid a sensitive recreation sites such as day use areas, fishing access, trails, etc.
- Selective Mitigation Measure 10: Maximize Span at Crossing would be implemented to avoid sensitive recreation areas (i.e., day use areas, scenic byways, trails, etc.)

Residual Effects

Residual impacts are those impacts on recreation resources that would remain despite the design features of the B2H Project for environmental protection and after the implementation of the selective mitigation measures. Table 3-370 below summarizes the initial impacts on recreation resources, the

selective mitigation measures applied to mitigate potentially adverse effects on those resources; and the remaining residual impacts.

Table 3-370. Summary of Initial and Residual Impacts on Recreation Resources

Resource[1]	Initial Impacts	Selective Mitigation Measures Applied	Residual Impacts
Hunting Areas[2]	Moderate	6	Moderate
Recreation/Public Interest Site/State Parks	Moderate	2,8,10	Low
Trail	Low	2,8,10	Low
Scenic Highways/Byways/Backways	Low	2,8,10	Low

Table Notes:
[1]Only resources crossed by the alternative routes are listed in this table.
[2]Hunting areas as identified using data provided by IDPR, ODFW, Morrow County

Qualitative analysis was conducted to assess impacts on recreation relevant to ROSs, SRMAs, scenic byways, and OHV designations. This analysis considers how the B2H Project may affect the ability for the applicable agency to manage and maintain these areas. Visual effects on scenic byways from the B2H Project are addressed in Section 3.2.12.

Additional Analysis

No additional analysis was conducted for recreation resources.

3.2.8.5 Affected Environment

Segment 1—Morrow-Umatilla

Applicant's Proposed Action Alternative

The Blue Mountain Forest State Scenic Corridor day use area and Blue Mountain Crossing Sno Park; and recreational trails on USFS-administered lands are present in the Applicant's Proposed Action Alternative in the study corridor. Roaded natural and roaded modified ROS in the Wallowa-Whitman National Forest and the OHV designation open, which is managed by the BLM Baker Field Office, also are present in the study corridor (Links 1-71 through 1-75).

Variation S1-B1

Variation S1-B1 has the same recreation resources as the Applicant's Proposed Action Alternative in the study corridor.

Variation S1-B2

The Blue Mountain Crossing Sno Park, Blue Mountain Forest State Scenic Corridor day use area; Blue Mountain North/Grande Ronde River Basin Area, and the Oregon Trail Interpretative Park picnic area and trailhead (Link 1-75); and recreational trails on USFS-administered lands are present in the study corridor for Variation S1-B2. Roaded natural and roaded modified ROS in the Wallowa-Whitman National Forest also are present in the study corridor (Links 1-71 through 1-75). The OHV designation open, which is managed by the BLM Baker Field Office, also is present in the study corridor.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The additional action has 0.4 mile of the Oregon NHT within the study corridor, though most of this area is under agricultural production.

East of Bombing Range Road Alternative

The recreation resources within the study corridor for East Bombing Range Road Alternative are the same as those described for the Applicant's Proposed Action Alternative.

Applicant's Proposed Action – Southern Route Alternative

The recreation resources within the study corridor for Applicant's Proposed Action – Southern Route Alternative are the same as those described for the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The recreation resources within the study corridor for West of Bombing Range Road – Southern Route Alternative are the same as those described for the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The affected environment for the additional action is the same as described for the additional action for the Applicant's Proposed Action Alternative.

Longhorn Alternative

The Blue Mountain Forest State Scenic Corridor day use area, Blue Mountain Crossing Sno Park and recreational trails on USFS-administered lands are present in the Longhorn Alternative study corridor. Roaded natural ROS in the Wallowa-Whitman National Forest, and the OHV designation open, which is managed by the Baker Field Office, also are located in the study corridor (Links 1-71 through 1-75).

Interstate 84 Alternative

The recreation resources within the study corridor for Interstate 84 Alternative are the same as those described for the Applicant's Proposed Action Alternative.

Variation S1-A1

Variation S1-A1 has recreational trails on USFS-administered lands in the study corridor.

Variation S1-A2

Variation S1-A2 has recreational trails USFS-administered lands in the study corridor.

Interstate 84 – Southern Route Alternative

The recreation resources within the study corridor for Interstate 84 – Southern Route Alternative are similar to those described for the Applicant's Proposed Action Alternative.

SEGMENT 2—BLUE MOUNTAINS

Applicant's Proposed Action

The Hilgard Junction State Park (Link 2-15), Grand Tour Route scenic bikeway (Link 2-1), Blue Mountain Snow-Park, recreational trails on USFS-administered lands, roaded natural and roaded modified ROS in the Wallowa-Whitman National Forest, and the OHV designation open, which is managed by the BLM Baker Field Office are located within the Applicant's Proposed Action Alternative study corridor.

Variation S2-A1

Similar to the Applicant's Proposed Action Alternative, the Blue Mountain Crossing Snow-Park, Hilgard Junction State Park (Link 2-15), roaded natural and roaded modified ROS in the Wallowa-Whitman National Forest are located in Variation S2-A1 study corridor.

Variation S2-A2

Similar to the Applicant's Proposed Action Alternative, the Blue Mountain Crossing Snow-Park, Hilgard Junction State Park (Link 2-15), recreational trails on USFS-administered lands and roaded natural and roaded modified ROS in the Wallowa-Whitman National Forest are located in the Variation S2-A2 study corridor.

Variation S2-B1

Similar to Variation S2-A2, recreational trails on BLM-administered lands and the OHV designation open, which is managed by the BLM Baker Field Office are located in the Variation S2-B1 study corridor.

Variation S2-B2

Variation S2-B2 has no recreation resources in the study corridor.

Variation S2-C1

Variation S2-C1 has no recreation resources in the study corridor.

Variation S2-C2

The Glass Hills hunting area (Link 2-12) and unknown trails Comment on BLM-administered lands are present within the study corridor for Variation S2-C2. Additionally, the Morgan Lake Recreation Area (Link 2-45) is in the study corridor for this variation. Morgan Lake Recreation Area offers lake fishing, picnicking, hiking, swimming, camping and non-motorized boating, with up to 25,000 rainbow trout stocked annually in the lake. Paved paths and walkways are provided to accommodate wheelchair access. This area is funded through grants from the Oregon Department of Fish and Wildlife and the Wildhorse Foundation, and is maintained with the help of volunteers. (City of LaGrande 2016)

Variations S2-E1 and S2-E2

Variations S2-E1 and S2-E2 have no recreation resources in the study corridor.

Variations S2-F1 and S2-F2

The Grand Tour Route scenic bikeway scenic byway (Link 2-1) trails on BLM-administered lands, and the OHV designation limited, which is managed by BLM Baker Field Office are located in the study corridor of Variations S2-F1 and S2-F2.

Glass Hill Alternative

The Grand Tour Route scenic bikeway (Link 2-1), recreational trails on BLM-administered lands, roaded natural and roaded modified ROS category in the Wallowa-Whitman National Forest, and the OHV designations open and limited, which are managed by the BLM Baker Field Office are located in the Glass Hill Alternative study corridor.

Variations S2-D1 and S2-D2

Variations S2-D1 and S2-D2 have no recreation resources in the study corridor.

Mill Creek Alternative

Hilgard Junction State Park (Link 2-15), Blue Mountain Crossing Sno Park, Grand Tour Route scenic bikeway (Link 2-1), Glass Hill hunting access area (Link 2-12), recreational trails on BLM-administered lands; roaded natural and roaded modified ROS category in the Wallowa-Whitman National Forest; and the OHV designations open and limited, which are managed by the BLM Baker Field Office are located in the Mill Creek Alternative study corridor.

SEGMENT 3—BAKER VALLEY

Applicant's Proposed Action

The National Historic Oregon Trail Interpretive Center visitor center (Link 3-36); M.R. King Ranches and Troy Ranches hunting access areas (Link 3-54) trails on BLM-administered lands; and the OHV designation open, which is on lands managed by the BLM Baker Field Office are located in the Applicant's Proposed Action study corridor.

The National Historic Oregon Trail Interpretive Center was a recreation destination for more than 66,000 people in 2009, accounting for 26 percent of the recreation users in the Baker Field Office. This interpretive site on the Oregon Trail, as of 2009, had recorded nearly two million visitors. While the number of visitors fluctuates, they do seem to be rising as people continue to seek out recreational opportunities. The site hosts events, education programs, exhibits, 4 miles of interpretive trails, a theatre, and gift shop, among other facilities. As part of its mission statement it lists, "preserving and protecting its historic, cultural heritage, natural, and visual features." For more information on the NHOTIC, refer to Section 3.2.15 and 3.2.17 (BLM 2011; BLM n.d)

Variations S3-A1 and S3-A2

The OHV designation open, which is on lands managed by the BLM Baker Field Office are present in Variations S3-A1 and S3-A2.

Variation S3-B1

The National Historic Oregon Trail Interpretive site visitor center (Link 3-36); National Virtue Flat OHV ERMA (Link 3-28) and NHOTIC SRMA; and the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Variation S3-B1 study corridor.

Variation S3-B2

Similar to Variation S3-B1, the National Historic Oregon Trail Interpretive site visitor center (Link 3-36);NHOTIC SRMA; and the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office, are present in the Variation S3-B2 has study corridor.

Variation S3-B3

The National Historic Oregon Trail Interpretive site visitor center (Link 3-36)and the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Variation S3-B3 study corridor.

Variation S3-B4

Recreation resources in the Variation S3-B4 study corridor are the same as those described for Variation S3-B3.

Variation S3-B5

Recreation resources in the Variation S3-B5 study corridor are the same as those described for Variation S3-B3.

Variation S3-C1

The M.R. King Ranches and Troy Ranches hunting access areas (Link 3-54), the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Variation S3-C1 study corridor.

Variation S3-C2

The M.R. King Ranches and Troy Ranches hunting access areas (Link 3-54); the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Variation S3-C2 study corridor.

Variations S3-C3 through S3-C6

The M.R. King Ranches, Fur Mountain, and Troy Ranches hunting access areas; the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Variation S3-C3 study corridor

Flagstaff A Alternative

The National Historic Oregon Trail Interpretive Center visitor center (Link 3-36); M.R. King Ranches and Troy Ranches hunting access areas (Link 3-54); the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Flagstaff A Alternative study corridor

Timber Canyon Alternative

The OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Timber Canyon Alternative study corridor

Flagstaff A – Burnt River Mountain Alternative

The National Historic Oregon Trail Interpretive Center visitor center (Link 3-36); M.R. King Ranches, Fur Mountain (Link 3-73), and Troy Ranches hunting access areas (Link 3-54); the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Flagstaff A – Burnt River Mountain Alternative study corridor

Flagstaff B Alternative

The National Historic Oregon Trail Interpretive Center visitor center (Link 3-36); M.R. King Ranches and Troy Ranches hunting access areas (Link 3-54); the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Flagstaff B Alternative study corridor

Flagstaff B – Burnt River West Alternative

The National Historic Oregon Trail Interpretive Center visitor center (Link 3-36); M.R. King Ranches, Fur Mountain (Link 3-73), and Troy Ranches hunting access areas (Link 3-54); the OHV designations open and limited, which are on lands managed by the BLM Baker Field Office are present in the Flagstaff B-Burnt River West Alternative study corridor

Flagstaff B – Durkee Alternative

Recreation resources in the Flagstaff B – Durkee Alternative study corridor are the same as those described for the Flagstaff B – Burnt River West Alternative.

SEGMENT 4—BROGAN

Applicant's Proposed Action

The roaded natural, rural, semi-primitive motorized, and semi-primitive non-motorized ROS managed by the Malheur Field Office; the OHV designation open, which is on lands managed by the BLM Baker and Malheur Field Offices are present in the Applicant's Proposed Action Alternative study corridor

Variation S4-A1

The and the OHV designation open, which is on lands managed by the BLM Baker Field Office are present in the Variation S4-A1 study corridor

Variation S4-A2

Recreation resources in the Variation S4-A2 study corridor are the same as those described for Variation S4-A1.

Variation S4-A3

Recreation Resources in the Variation S4-A3 study corridor are the same as those described for Variation S4-A1.

Tub Mountain South Alternative

The Birch Creek interpretative site (Link 4-75); ROS managed by the Malheur Field Office, and the OHV designation open, which is on lands managed by the BLM Baker Field Office and the OHV designations open and limited, which are on lands managed by the BLM Malheur Field Office are present in the Tub Mountain South Alternative study corridor

Willow Creek Alternative

ROS managed by the Malheur Field Office; and the OHV designation open, which is on lands managed by the BLM Baker Field Office and the OHV designations open and limited, which are on lands managed by the BLM Malheur Field Office are present in the Willow Creek Alternative study corridor

SEGMENT 5—MALHEUR

Applicant's Proposed Action Alternative

ROS managed by the Malheur Field Office; Owyhee River Below the Dam SRMA (Link 5-30); and the OHV designations open and limited, which are on lands managed by the BLM Malheur Field Office are present in the Applicant's Proposed Action study corridor

Variations S5-A1 and S5-A2

ROS managed by the Malheur Field Office; and the OHV designation open, and limited, which are on lands managed by the BLM Malheur Field Office are present in Variations S5-A1 and S5-A2

Variation S5-B1

Recreation resources in the Variation S5-B1 study corridor are the same as those discussed for the Applicant's Proposed Action Alternative.

Variation S5-B2

ROS managed by the Malheur Field Office; Owyhee River Below the Dam SRMA (Link 5-30); and the OHV designations open and limited, which are on lands managed by the BLM Malheur Field Office are present in the Variation S5-B2 study corridor

Malheur S Alternative

ROS managed by the Malheur Field Office; and the OHV designations open and limited, which are on lands managed by the BLM Malheur Field Office are present in the Malheur S Alternative study corridor

Malheur A Alternative

ROS managed by the Malheur Field Office; and the OHV designations open and limited, which are on lands managed by the BLM Malheur Field Office are present in the Malheur A Alternative study corridor

SEGMENT 6—TREASURE VALLEY

Applicant's Proposed Action

ROS managed by the Owyhee and Malheur Field Offices; and the OHV designations open and limited, which are on lands managed by the BLM Malheur Field Office and the OHV designation limited to existing and limited to designated, which are on lands managed by the BLM Owyhee Field Office are present in the Applicant's Proposed Action Alternative study corridor

Variation S6-A1

ROS managed by the Owyhee and Malheur Field Offices; and the OHV designation limited, which is on lands managed by the BLM Malheur Field Office and the OHV designations limited to existing and limited to designated, which are on lands managed by the BLM Owyhee Field Office are present in the Variation S6-A1 study corridor

Variation S6-A2

Recreation resources in the Variation S6-A2 study corridor are the same as those described for Variation S6-A1.

Variation S6-B1

ROS managed by the Owyhee Field Office; and the OHV designations limited to existing and limited to designated, which are on lands managed by the BLM Owyhee Field Office are present in the Variation S6-B1 study corridor

Variation S6-B2

The Jump Creek recreation site (Link 6-20); ROS managed by the Owyhee Field Office; and the OHV designations closed, limited to existing, and limited to designated, which are on lands managed by the BLM Owyhee Field Office are present in the Variation S6-B2 study corridor

3.2.8.6 ENVIRONMENTAL CONSEQUENCES (RESULTS OF ANALYSIS)

This section presents the results of the effects analysis for recreational resources. Refer also to MV-19.

TYPES OF POTENTIAL EFFECTS

Both direct and indirect effects on recreation resources could result from construction, operation, and maintenance of the B2H Project. Direct effects associated with construction, operation, and maintenance activities could include:

- Trail and scenic byway closures during construction (short term)
- Increased access into areas not suitable for vehicular travel as a result of new access roads constructed for the B2H Project (long term)
- Limited opportunity for future expansion of recreation sites (long term)

- Potential diminished recreational experience at campgrounds, trails, and other recreation areas as a result of the sights, sounds (e.g., corona effect), and presence of the transmission line and access roads (long term)

Indirect effects on recreation resources can result from increased traffic on roads leading to recreation areas during construction (short term).

No Action Alternative

Under this alternative, the environment would remain as it presently exists.

Effects Common to All Alternatives

Potential impacts on recreation related to geotechnical investigation activities would be largely avoided through implementation of design features of the B2H Project for environmental protection (refer to Table 2-7). Recreational sites would be avoided. Due to the intermittent nature and short duration of geotechnical investigation activities, impacts on recreation would be low. Geotechnical testing would be coordinated with the managing agency. Overland travel in recreation areas would be avoided unless approved by the managing agency.

Segment 1—Morrow-Umatilla

Table 3-371 presents the results of the effects analysis for the alternatives and route variations in Segment 1.

Table 3-371. Recreation Inventory Data and Residual Impacts in Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)[1]		
		Hunting Areas	Scenic Byways	Recreation Areas/State Park	Recreation Management Areas	Trails	High	Moderate	Low
Applicant's Proposed Action	91.9	0.0	0.0	0.3	0.0	3.0	0.0	0.3	2.9
Variation S1-B1	6.4	*0.0*	*0.0*	*0.3*	*0.0*	*2.3*	*0.0*	*0.3*	*2.2*
Variation S1-B2	6.4	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
East of Bombing Range Road	92.3	0.0	0.0	0.3	0.0	3.1	0.0	0.3	3.0
Applicant's Proposed Action – Southern Route	99.1	0.0	0.0	0.3	0.0	3.0	0.0	0.3	2.9
West of Bombing Range Road – Southern Route	95.6	0.0	0.0	0.3	0.0	3.0	0.0	0.3	2.9
Longhorn	88.2	0.0	0.0	0.3	0.0	2.8	0.0	0.3	2.7

Table 3-371. Recreation Inventory Data and Residual Impacts in Segment 1—Morrow-Umatilla									
Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)[1]		
		Hunting Areas	Scenic Byways	Recreation Areas/State Park	Recreation Management Areas	Trails	High	Moderate	Low
Interstate 84	84.7	0.0	0.0	0.3	0.0	24.3	0.0	0.3	24.2
Variation S1-A1	*18.5*	*0.0*	*0.0*	*0.0*	*0.0*	*14.0*	*0.0*	*0.0*	*14.0*
Variation S1-A2	*18.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.1*
Interstate 84 – Southern Route	93.4	0.0	0.0	0.3	0.0	24.3	0.0	0.3	24.2

Table Notes:
[1]Combined results of overall residual impacts may not sum due to overlapping impact locations.
[2]Hunting areas as identified using data provided by IDPR, ODFW, and Morrow County

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would result in 0.3 mile of moderate residual impacts on recreation resources where the B2H Project would cross the Blue Mountain Forest State Scenic Corridor day use area (MV-19). To minimize potential effects, new access roads to the day use area would be prohibited (Selective Mitigation Measure 6) and towers structures would be placed to avoid directly affecting the facilities at the day use area that visitors use to view and photograph wildlife (Selective Mitigation Measure 8). Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting wildlife viewers and wildlife photographers. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects. Refer to Section 3.2.12 for a discussion of visual effects on Blue Mountain Forest State Scenic Corridor day use area.

Impacts of the B2H Project on other recreational resources, including recreational trails, a small portion of the open OHV designation, which is managed by the Baker Field Office, and roaded natural ROS that are crossed, would be low. Long-term effects on the management of recreational trails, the open OHV designation, and roaded natural ROS categories are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these recreation resources.

Variation S1-B1

The impacts associated with Variation S1-B1 would be the same as the Applicant's Proposed Action Alternative.

Variation S1-B2

Variation S1-B2 avoids the Blue Mountain Forest State Scenic Corridor day use area, recreational trails, and the open OHV designation, which is managed by the BLM Baker Field Office. No high or

moderate residual impacts on recreation resources would occur for this Variation. Effects of the Variation S1-B2 on the roaded natural ROS would be low. Long-term effects on the management of ROS categories are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment in the ROS categories.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

This additional action would not result in any high or moderate residual impacts on recreation resources.

East of Bombing Range Road Alternative

The effects on the Blue Mountain Forest State Scenic Corridor day use area associated with East of Bombing Range Road Alternative would be the same as the Applicant's Proposed Action Alternative. Impacts of the East of Bombing Range Road Alternative on other recreational resources crossed, including recreational trails, a small portion of the open OHV designation, and the roaded natural ROS, would be similar to the Applicant's Proposed Action Alternative. The East of Bombing Range Road Alternative crosses 0.1 more miles of trails. Long-term effects on the management of the recreational trails, the small portion of the open OHV designation, and the roaded natural ROS are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these recreation resources.

Applicant's Proposed Action – Southern Route Alternative

The effects on the Blue Mountain Forest State Scenic Corridor day use area associated with the Applicant's Proposed Action – Southern Route Alternative would be the same as the Applicant's Proposed Action Alternative. Impacts of the Applicant's Proposed Action – Southern Route Alternative on other recreational resources crossed, including recreational trails, a small portion of the open OHV designation, and the roaded natural ROS, would be similar to the Applicant's Proposed Action Alternative. A larger portion of the open OHV designation would be affected but impacts would be low. Long-term effects on the management of the recreational trails, the small portion of the open OHV designation, and the roaded natural ROS are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these recreation resources.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The effects on recreation resources from this design option would be the same as described for the Applicant's Proposed Action Alternative.

West of Bombing Range Road – Southern Route Alternative

The effects on the Blue Mountain Forest State Scenic Corridor day use area associated with the West of Bombing Range Road – Southern Route Alternative would be the same as the Applicant's Proposed Action Alternative. Impacts of the West of Bombing Range Road – Southern Route Alternative on other recreational resources crossed, including recreational trails, a small portion of the open OHV designation, and roaded natural ROS, would be similar to the Applicant's Proposed Action Alternative. A larger portion of the open OHV designation would be affected but impacts would be low. Long-term effects on the management of the recreational trails, the small portion of the open OHV designation, and the roaded natural ROS are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these recreation resources.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The effects on recreation resources from this design option would be the same as described for the Applicant's Proposed Action Alternative.

Longhorn Alternative

The effects on the Blue Mountain Forest State Scenic Corridor day use area associated with the Longhorn Alternative would be the same as the Applicant's Proposed Action Alternative. Impacts of the Longhorn Alternative on other recreational resources crossed, including recreational trails, a small portion of the open OHV designation, and the roaded natural ROS, would be similar to the Applicant's Proposed Action Alternative. More recreational trails and a larger portion of the open OHV designation would be affected but impacts would be low. Long-term effects on the management of the recreational trails, the open OHV designation, and the roaded natural ROS are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these recreation resources.

Interstate 84 Alternative

The Interstate – 84 Alternative has the same recreation resources as the Applicant's Proposed Action Alternative, including Blue Mountain Forest State Scenic Corridor day use area (Link 1-31) and recreational trails on USFS-administered lands in the study corridor. This alternative route also has roaded natural ROS. Impacts of the Interstate 84 Alternative on other recreational resources crossed, including recreational trails, a small portion of an open OHV designation, and the roaded natural ROS, would be similar to the Applicant's Proposed Action Alternative. More recreational trails and open OHV designation would be affected but impacts would be low. Long-term effects on the management of the recreational trails, the open OHV designation, and the roaded natural ROS are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these recreation resources.

Variations S1-A1 and S1-A2

Variations S1-A1 and S1-A2 have no high or moderate residual impacts on recreation resources. Impacts on recreational trails can be mitigated resulting in impacts as low. Long-term effects on the management of the recreational trails are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these recreation resources.

Interstate 84 – Southern Route Alternative

The effects on the Blue Mountain Forest State Scenic Corridor day use area associated with the Interstate 84 – Southern Route Alternative would be similar to the Applicant's Proposed Action Alternative. However, the Blue Mountain Forest State Scenic Corridor day use area is crossed farther east (Link 1-31). Impacts of the Interstate 84 – Southern Route Alternative on other recreational resources, including recreational trails, a small portion of the OHV designation crossed, and the roaded natural ROS, would be similar to the Applicant's Proposed Action Alternative. More recreational trails and a larger portion of the open OHV designation would be affected but impacts would be low. Long-term effects on the management of these recreation resources are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these recreation resources.

Conclusions

All alternative routes and route variations except for Variation S1-B1, Variation S1-A1, and Variation S1-A2 would result in moderate impacts on the Blue Mountain Forest State Corridor day use area. All other impacts on recreation resources are expected to be low. Interstate 84, and Interstate 84 – Southern Route Alternative crosses more recreational trails and a larger portion of the open OHV designation than the other alternative routes and route variations analyzed in Segment 1.

SEGMENT 2—BLUE MOUNTAINS

Table 3-372 presents the residual impacts on all alternative routes and route variations in Segment 2.

Table 3-372. Recreation Inventory Data and Residual Impacts in Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)[1]		
		Hunting Areas	Scenic Byways	Recreation Areas/State Park	Recreation Management Areas	Trails	High	Moderate	Low
Applicant's Proposed Action	33.8	0.0	0.2	0.0	0.0	0.8	0.0	0.0	1.0
Variation S2-A1	*2.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-A2	*2.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.1*

Table 3-372. Recreation Inventory Data and Residual Impacts in Segment 2—Blue Mountains									
Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)[1]		
		Hunting Areas	Scenic Byways	Recreation Areas/State Park	Recreation Management Areas	Trails	High	Moderate	Low
Variation S2-B1	*3.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.2*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-C2	*8.8*	*0.8*	*0.0*	*0.0*	*0.0*	*0.4*	*0.0*	*0.8*	*0.4*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-F1	*12.1*	*0.0*	*0.2*	*0.0*	*0.0*	*0.4*	*0.0*	*0.0*	*0.6*
Variation S2-F2	*12.2*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*
Glass Hill	33.7	0.0	0.2	0.0	0.0	0.8	0.0	0.0	1.0
Variation S2-D1	*4.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-D2	*4.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Mill Creek	34.0	1.4	0.2	0.0	0.0	0.8	0.0	1.4	1.0

Table Notes:
[1]Combined results of overall residual impacts may not sum due to overlapping impact locations.
[2]Hunting areas as identified using data provided by IDPR, ODFW, and Morrow County

Applicant's Proposed Action

The Applicant's Proposed Action Alternative would result in no high or moderate residual impacts on recreation resources but low impacts would occur where the alternative crosses the Grand Tour Route scenic bikeway (Link 2-1) and recreational trails. To minimize potential effects on these recreation areas, the use of existing access and avoiding directly affecting the scenic bikeway and recreational trails (Selective Mitigation Measure 2), towers structures would be placed to avoid directly affecting the recreational trails and scenic bikeway (Selective Mitigation Measure 8), and maximize the span over these areas (Selective Mitigation Measure 10). Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the trails or scenic byway and noise and construction activities disrupting bicycle and other trail users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects. Refer to Section 3.2.12 for a discussion of visual effects on Grand Tour Route scenic bikeway.

Variation S2-A1

Variation S2-A1 has no high, moderate, or low residual impacts on recreation resources. Effects of the Variation S2-A1 on the roaded natural ROS would be low. Long-term effects on the management of ROS categories are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment in the ROS categories.

Variation S2-A2

Variation S2-A2 would result in no high or moderate residual impacts on recreation resources but low impacts would occur where the B2H Project crosses recreational trails. To minimize potential effects on these recreational trails, the use of existing access and avoiding directly affecting the recreational trails (Selective Mitigation Measure 2), towers structures would be placed to avoid directly affecting the recreational trails (Selective Mitigation Measure 8), and maximize the span over these recreational areas (Selective Mitigation Measure 10). Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the trails and noise and construction activities disrupting bicycle, snowmobiling, and other trail users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line. Impacts on a small portion of roaded natural ROS can be mitigated and would not preclude the B2H Project.

Variation S2-B1

There are no high or moderate impacts on Variation S2-B1. Effects on recreational trails would be similar to Variation S2-A2 and the open OHV designation would be affected but impacts would be low. Long-term effects on the management of the open OHV designation are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of this open OHV designation.

Variation S2-B2

Variation S2-B2 has no high, moderate, or low residual impacts on recreation resources.

Variation S2-C1

Variation S1-C1 has no high, moderate, or low residual impacts on recreation resources.

Variation S2-C2

Variation S2-C2 would result in no high impacts and 0.8 mile of moderate residual impacts on hunting access areas (Link 2-48). To minimize potential effects on hunting access areas, existing access will be used (Selective Mitigation Measure 2), limit new or improved accessibility to previously inaccessible areas would be applied to reduce impacts on hunting access areas (Selective Mitigation Measure 6), towers structures would be placed to avoid directly affecting the hunting area access points (Selective Mitigation Measure 8), and to maximize the span over hunting area access points (Selective Mitigation Measure 10). Recreational trails also are crossed by Variation S2-C2 and effects would be mitigated similar to the Applicant’s Proposed Alternative.

Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the hunting areas and noise and construction activities disrupting hunting activities. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line.

Indirect effects could occur on the Morgan Lake Recreation Area (Link 2-45). Although this variation does not cross the recreation area, it is approximately 108 feet away from the recreation area at the closest point. This could detract from the recreational experience of users in the area by introducing noise and dust associated with construction activities. In addition, this variation is close to the entrance of the recreation area, which could inhibit or limit access during construction. For the long term, presence of B2H Project permanent facilities could reduce the recreational experience through introduction of development in a natural setting. For further discussion of impacts on visual resources, refer to Section 3.2.12.

Variations S2-E1 and S2-E2

Variations S2-E1 and S2-E2 have no high, moderate, or low residual impacts on recreation resources.

Variation S2-F1

Variation S2-F1 would have no high or moderate residual impacts. Low residual impacts would occur where this route variation crosses Grand Tour Scenic Bikeway and recreational trails. Impacts and the selective mitigation measures applied to the Grand Tour Scenic Bikeway and recreational trails would be the same as the Applicant's Proposed Alternative. A limited OHV designation managed by the BLM would be affected but impacts would be low. Long-term effects on the management of the limited OHV designation are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of this limited OHV designation.

Variation S2-F2

Variation S2-F2 would have no high or moderate residual impacts. Low residual impacts would occur where this route variation crosses Grand Tour Scenic Bikeway. Impacts and the selective mitigation measures applied to the Grand Tour Scenic Bikeway would be the same as the Applicant's Proposed Alternative.

Glass Hill Alternative

The Glass Hill Alternative would have no high or moderate residual impacts. Low residual impacts would occur where the Glass Hill Alternative crosses Grand Tour Scenic Bikeway and recreational trails. Impacts and the selective mitigation measures applied to the Grand Tour Scenic Bikeway and recreational trails would be the same as the Applicant's Proposed Alternative. Open and limited OHV designations and a roaded natural ROS area would be affected but impacts would be low. Long-term effects on the management of the open and limited OHV designations and roaded natural ROS area are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these open and limited OHV designations and roaded natural ROS.

Variations S2-D1 and S2-D2

Variations S2-D1 and S2-D2 have no high, moderate, or low residual impacts on recreation resources.

Mill Creek Alternative

The Mill Creek Alternative would have 1.4 miles moderate residual impacts where the B2H Project crosses a hunting access area (Link 2-12) and no high impacts. Low residual impacts would occur where the B2H Project crosses Grand Tour Scenic Bikeway and recreational trails. Impacts and the selective mitigation measures applied to the hunting access area would be similar to Variation S2-C2 and Grand Tour Scenic Bikeway and recreational trails would be the same as the Applicant's Proposed Alternative. In addition to these recreation areas a roaded natural ROS area would be affected but impacts would be low. Long-term effects on the management of the roaded natural ROS area are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of this roaded natural ROS area.

Conclusions

Moderate impacts on hunting areas are expected from Variation S2-C2 (0.8 mile) of the Applicant's Proposed Action Alternative and the Millcreek Alternative (1.4 miles). No high or moderate impacts on recreation resources are expected from other alternatives routes or route variations analyzed in Segment 2.

SEGMENT 3—BAKER VALLEY

Table 3-373 presents the residual impacts on all alternative routes and route variations in Segment 3.

Table 3-373. Recreation Inventory Data and Residual Impacts in Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)[1, 2]		
		Hunting Areas[3]	Scenic Byways	Recreation Areas/State Park	Recreation Management Areas	Trails	High	Moderate	Low
Applicant's Proposed Action	55.2	*6.3*	*0.7*	*0.0*	*0.1*	*2.1*	*0.0*	*6.3*	*2.0*
Variation S3-A1	*12.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-A2	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-B1	*13.9*	*0.0*	*0.5*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.5*
Variation S3-B2	*14.4*	*0.0*	*0.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*
Variation S3-B3	*14.7*	*0.0*	*0.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*
Variation S3-B4	*14.3*	*0.0*	*0.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*
Variation S3-B5	*14.0*	*0.0*	*0.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*
Variation S3-C1	*21.1*	*2.6*	*0.2*	*0.0*	*0.0*	*1.8*	*0.0*	*2.6*	*1.5*
Variation S3-C2	*21.7*	*3.7*	*0.2*	*0.0*	*0.0*	*1.0*	*0.0*	*3.7*	*0.7*
Variation S3-C3	*21.1*	*3.9*	*0.2*	*0.0*	*3.0*	*0.8*	*0.0*	*3.9*	*0.5*
Variation S3-C4	*21.4*	*3.9*	*0.2*	*0.0*	*3.3*	*0.8*	*0.0*	*3.9*	*0.5*
Variation S3-C5	*21.0*	*5.2*	*0.1*	*0.0*	*3.9*	*1.1*	*0.0*	*5.2*	*0.7*
Variation S3-C6	*24.7*	*2.5*	*0.3*	*0.0*	*4.4*	*1.0*	*0.0*	*2.5*	*0.8*
Flagstaff A	55.3	6.3	0.5	0.0	0.0	2.1	0.0	6.3	1.8
Timber Canyon	70.3	0.0	1.0	0.0	0.0	2.0	0.0	0.0	3.0

Table 3-373. Recreation Inventory Data and Residual Impacts in Segment 3—Baker Valley									
Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)[1, 2]		
		Hunting Areas[3]	Scenic Byways	Recreation Areas/State Park	Recreation Management Areas	Trails	High	Moderate	Low
Flagstaff A – Burnt River Mountain	55.3	7.6	0.5	0.0	3.0	1.1	0.0	7.6	0.8
Flagstaff B	56.0	6.3	0.6	0.0	0.0	2.1	0.0	6.3	1.9
Flagstaff B – Burnt River West	55.7	8.9	0.5	0.0	3.9	1.4	0.0	8.9	1.1
Flagstaff B - Durkee	59.6	6.2	0.7	0.0	4.4	1.3	0.0	6.2	1.2

Table Notes:
[1]Residual impacts do not include miles crossed for Recreation Management Areas.
[2]Combined results of overall residual impacts may not sum due to overlapping impact locations.
[3]Hunting areas as identified using data provided by IDPR, ODFW, and Morrow County

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative would result in 6.3 miles of moderate residual impacts where the Applicant's Proposed Action crosses hunting access areas and 2.0 miles of low impacts where the Applicant's Proposed Action crosses the Grand Tour Scenic Bikeway, Snake River-Mormon Basin back country byway, Hells Canyon (an All-American road) and recreational trails (MV-19). To minimize potential effects on hunting access areas, existing access will be used (Selective Mitigation Measure 2), new access roads to the hunting access areas would be limited to only where it is necessary, and would be reclaimed following construction (Selective Mitigation Measure 6), towers structures would be placed to avoid directly affecting the hunting area access points (Selective Mitigation Measure 8), and maximize the span over hunting area access points (Selective Mitigation Measure 10).

The Applicant's Proposed Action also crosses Virtue Flat OHV ERMA (0.1 mile) (Link 3-28), an extensive OHV designated-use area managed for all year-round uses, including mountain bikes and horseback riding. Short-term effects from construction activities to the scenic byways, recreational trails, ERMA, and open and limited OHV designations include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting hunters and byway, OHV and/or trail users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

The Applicant's Proposed Action Alternative passes to the east of the NHOTIC in a location that could affect the recreation experience of visitors to the site, although no NHOTIC trails or interpretive sites would be crossed by the B2H Project. Some users of the site visit the NHOTIC for the purpose of experiencing the Oregon Trail as it previously existed. The presence of the B2H Project could affect this experience in the short term through construction activities (noise and dust of equipment, potential limited access). In the long term, through the presence of permanent access roads, removal of

vegetation, and tower structures, which could alter the landscape setting, the vicarious recreation experience some visitors seek at the NHOTIC could be affected. However, there are existing disturbances, including roads, agriculture, and a transmission line already affecting this experience. The additional disturbance could affect the types or quantity of users at the NHOTIC. Economic benefits associated with tourism and recreation may decrease if visitation decreases. Refer to Section 3.2.17 for further discussion regarding socioeconomics. For more information related to impacts on the NHOTIC, also refer to Section 3.2.15.

Variations S3-A1 and S3-A2

Variations S3-A1 and S3-A2 have no high, moderate, or low residual impacts on recreation resources. A limited OHV designation would be affected but impacts would be low. Long-term effects on the management of the limited OHV designation are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of this limited OHV designation.

Variation S3-B1

Variation S3-B1 would result in no high or moderate residual impacts and 0.5 mile of low impacts where Variation S3-B1 crosses Grand Tour Scenic Bikeway, Snake River-Mormon Basin back country byway, and Hells Canyon (an All-American road), (MV-19). To minimize potential effects on the scenic byways, existing access will be used (Selective Mitigation Measure 2), towers structures would be placed to avoid directly affecting the scenic byways (Selective Mitigation Measure 8), and maximize the span over the scenic byways (Selective Mitigation Measure 10).

In addition, the Variation S3-B1 crosses the Virtue Flat OHV ERMA (0.1 mile) (Link 3-28), an extensive OHV designated-use area managed for all year-round uses, including mountain bikes and horseback riding, and a limited OHV designation. Short-term effects from construction activities to the scenic byways, ERMA, and limited OHV designation include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting byway, OHV and/or trail users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

This variation shares the same alignment as the Applicant's Proposed Action and recreation impacts on the NHOTIC would be the same as that alternative.

Variation S3-B2

Variation S3-B2 has no high or moderate residual impacts and 0.4 mile of low impacts where Variation S3-B2 crosses the same scenic byways and limited OHV designations as Variation S3-B1, however this variation also crosses open OHV designation. Effects on recreation resources would be similar to those described for Variation S3-B1. This variation is on the western side of the NHOTIC while Variation S3-B1 is on the eastern side of the NHOTIC. Neither variation directly affects trails or recreation sites at the NHOTIC, but the view shed of recreationists at the NHOTIC would be affected.

Variation S3-B3

Variation S3-B3 has no high or moderate residual impacts and 0.3 mile of low impacts where Variation S3-B3 crosses scenic byways. Effects on recreation resources would be similar to those described for Variation S3-B1, with the exception that no limited OHV designation is crossed by this variation. This variation passes the NHOTIC using the same alignment as Variation S3-B2 and impacts on recreation at the NHOTIC would be the same.

Variation S3-B4

Variation S3-B4 has no high or moderate residual impacts and 0.3 mile of low impacts where Variation S3-B4 crosses scenic byways. Effects on recreation resources would be the same as those described for Variation S3-B1. This variation passes the NHOTIC further away than Variation S3-B2 and, thus, impacts on recreation would be less than that variation.

Variation S3-B5

Variation S3-B5 has no high or moderate residual impacts and 0.3 mile of low impacts where Variation S3-B4 crosses scenic byways. In addition, Variation S3-B5 crosses an open OHV designation. Effects on recreation resources would be the same as those described for Variation S3-B1. This variation passes the NHOTIC slightly further away than Variation S3-B4 and would likely have the least impacts on recreation at the NHOTIC of these variations on the west side of the NHOTIC.

Variation S3-C1

Variation S3-C1 would result in 2.6 miles of moderate residual impacts on recreation resources where the Variation S3-C1 crosses hunting access areas and 1.5 miles of low impacts where Variation S3-C1 crosses the Snake River-Mormon Basin back country byway and recreational trails (MV-19). To minimize potential effects on hunting access areas, existing access will be used (Selective Mitigation Measure 2), new access roads to the hunting areas would be limited, and where they are necessary, they would be reclaimed to original condition so that additional access to the hunting area would be limited to during construction only (Selective Mitigation Measure 6), towers structures would be placed to avoid directly affecting the hunting area access points (Selective Mitigation Measure 8), and maximize the span over hunting area access points (Selective Mitigation Measure 10). In addition to the recreation resources listed above, Variation S3-C1 also crosses open and limited OHV designations. Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting hunters, byway, and/or OHV users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

Variation S3-C2

Similar to Variation S3-C1, Variation S3-C2 would result in 3.7 miles of moderate impacts from crossing hunting access areas. This variation also would have 0.7 mile of low impacts where the Variation S3-C2 crosses the Snake River-Mormon Basin back country byway and recreational trails. To minimize potential effects on hunting access areas, Snake River-Mormon Basin back country byway, and recreational trails, existing access will be used (Selective Mitigation Measure 2), new access roads to

the hunting access areas would be prohibited (Selective Mitigation Measure 6), towers structures would be placed to avoid directly affecting the hunting access area, Snake River-Mormon Basin back country byway and recreational trail access points (Selective Mitigation Measure 8), and maximize the span over hunting access areas, Snake River-Mormon Basin back country byway points, and recreational trails (Selective Mitigation Measure 10). In addition, Variation S3-C2 also crosses open and limited OHV designations. Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting hunters, byway users, and/or OHV users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

Variation S3-C3

Variation S3-C3 would result in no high impacts and 3.9 miles of moderate impacts from crossing hunting access areas and 0.5 mile of low impacts where Variation S3-C3 crosses the Snake River-Mormon Basin back country byway and recreational trails. Refer to Variation S3-C2 for further information regarding mitigation and effects on these recreation resources. In addition, Variation S3-C3 also crosses Burnt River ERMA (3.0 miles) which is managed for water-based activities, including fishing and hunting, and limited and open OHV designations. Short-term effects from construction activities would include temporary disturbance, restriction or closure of areas where OHV use occurs and noise and construction activities disrupting OHV users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission lines.

Variation S3-C4

Effects on recreation resources would be the same as those described for Variation S3-C3; however it crosses the Burnt River ERMA for 3.3 miles.

Variation S3-C5

Variation S3-C5 would result in no high impacts and 5.2 miles of moderate impacts from crossing hunting access areas and 0.7 mile of low impacts where Variation S3-C5 crosses the Snake River-Mormon Basin back country byway and recreational trails. Variation S3-C5 also crosses the Burnt River ERMA (3.9 miles) (Links and limited and open OHV designations. Effects on recreation resources would be the same as those described for Variation S3-C3.

Variation S3-C6

Variation S3-C6 would result in no high impacts and 2.5 miles of moderate impacts from crossing hunting access areas and 0.8 mile of low impacts where Variation S3-C6 crosses the Snake River-Mormon Basin back country byway and recreational trails. Variation S3-C6 also crosses the Burnt River ERMA (4.4 miles) (and limited and open OHV designations. Effects on recreation resources would be the same as those described for Variation S3-C3.

Flagstaff A Alternative

The Flagstaff A Alternative would result in no high impacts, 6.3 miles of moderate residual impacts where the alternative crosses hunting access areas and 1.8 miles of low impacts where the alternative crosses the Grand Tour Route scenic bikeway, Snake River-Mormon Basin back country byway, and Hells Canyon All-American highway and recreational trails (MV-19). To minimize potential effects on scenic byways and hunting access areas, existing access will be used (Selective Mitigation Measure 2), new access roads to the hunting access areas would be prohibited (Selective Mitigation Measure 6), towers structures would be placed to avoid directly affecting the hunting access area, Snake River-Mormon Basin back country byway and recreational trail access points (Selective Mitigation Measure 8), and maximize the span over hunting access areas, Snake River-Mormon Basin back country byway points, and recreational trails (Selective Mitigation Measure 10). In addition to the recreation resources listed above, Flagstaff A Alternative also crosses the Burnt River ERMA for (3.0 miles), limited and open OHV designations. Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting hunters, byway, and/or OHV users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

This variation is on the western side of the NHOTIC while Applicant's Proposed Action is on the eastern side of the NHOTIC. Neither alternative directly impacts trails or recreation sites at the NHOTIC, but the view shed of recreationists at the NHOTIC would be affected. This alternative takes the route furthest west of the NHOTIC.

Timber Canyon Alternative

The Timber Canyon Alternative would result in no high or moderate impacts and 1.8 miles of low impacts where the Timber Canyon Alternative crosses the Grand Tour Route scenic bikeway, Snake River-Mormon Basin back country byway, and Hells Canyon All-American highway and recreational trails (MV-19). To minimize potential effects on scenic byways, existing access will be used (Selective Mitigation Measure 2), new access roads would be prohibited (Selective Mitigation Measure 6), towers structures would be placed to avoid directly affecting the scenic byway (Selective Mitigation Measure 8), and maximize the span over scenic byway access points (Selective Mitigation Measure 10). In addition to the recreation resources listed above, Timber Canyon Alternative also crosses a roaded natural ROS and limited and open OHV designations. Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting byway, and/or OHV users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

This alternative route would have no identifiable impact on recreation at the NHOTIC because of its distance from the NHOTIC.

Flagstaff A – Burnt River Mountain Alternative

Flagstaff A – Burnt River Mountain Alternative has no high impacts, 7.6 miles of moderate residual impacts where the Burnt River Mountain Alternative crosses hunting access areas, and 0.3 mile of low impacts where the Flagstaff A – Burnt River Mountain Alternative crosses Grand Tour Route scenic bikeway, Snake River-Mormon Basin back country byway, and Hells Canyon All-American highway and recreational trails. This variation would have the same mitigation and results as Flagstaff A Alternative. In addition, Flagstaff A – Burnt River Mountain Alternative crosses limited and open OHV designations and would have the same mitigation and results as Flagstaff A Alternative.

This alternative would have the same impacts on recreation at the NHOTIC as the Flagstaff A Alternative because it shares the same alignment where it passes the NHOTIC.

Flagstaff B Alternative

The Flagstaff Alternative would result in no high impacts, 6.3 miles moderate impacts the Flagstaff B Alternative crosses hunting access areas and 1.9 miles of low impacts where the Flagstaff B Alternative crosses the Grand Tour Route scenic bikeway, Snake River-Mormon Basin back country byway, and Hells Canyon All-American highway and recreational trails (MV-19). To minimize potential effects, the use of existing access will occur (Selective Mitigation Measure 2), new access roads to the hunting access areas would be prohibited (Selective Mitigation Measure 6), towers structures would be placed to avoid directly affecting the hunting area access points (Selective Mitigation Measure 8), and maximize the span over hunting area access points (Selective Mitigation Measure 10). In addition to the recreation resources listed above, Flagstaff B Alternative also crosses open and limited OHV designations. Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting byway, trail and/or OHV users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

This alternative would have greater impacts on recreation at the NHOTIC than the Flagstaff A Alternative, and the same impacts as the Flagstaff B – Burnt River West alternative and Flagstaff B – Durkee Alternative, as it takes the route closest to the NHOTIC.

Flagstaff B – Burnt River West Alternative

Flagstaff B – Burnt River West Alternative would result in no high impacts and 8.9 miles of moderate impacts from crossing hunting access areas and 1.1 mile of low impacts where the alternative crosses the Grand Tour Route scenic bikeway, Snake River-Mormon Basin back country byway, and Hells Canyon All-American highway and recreational trails. Flagstaff B – Burnt River West Alternative also crosses the Burnt River ERMA (3.9 miles) (and limited and open OHV designations. Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting hunters, byway, trail and/or OHV users. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

This alternative would have the same impacts on recreation at the NHOTIC as the Flagstaff B and Flagstaff B – Durkee Alternatives because it shares the same alignment as those alternatives when it passes the NHOTIC.

Flagstaff B – Durkee Alternative

Flagstaff B – Durkee would result in no high impacts and 6.2 miles of moderate impacts from crossing hunting access areas and 1.2 mile of low impacts where the alternative crosses the Grand Tour Route scenic bikeway, Snake River-Mormon Basin back country byway, and Hells Canyon All-American highway and recreational trails. Flagstaff B – Durkee also crosses the Burnt River ERMA (4.4 miles) and limited and open OHV designations. Flagstaff B- Durkee Alternative would have the same mitigation and results as Flagstaff B – Burnt River West Alternative and Flagstaff B Alternative. Short-term effects from construction activities would include temporary disturbance, restriction or closure of access to the area and noise and construction activities disrupting hunters, byway, trail and/or OHV designations. Long-term effects generally would be expected to be minimal with occasional noise and dust that may occur during maintenance activities on the transmission line and visual effects.

This alternative would have the same impacts on recreation at the NHOTIC as the Flagstaff B – Burnt River West Alternative and Flagstaff B Alternative because it shares the same alignment as those alternatives when it passes the NHOTIC.

Conclusions

Moderate impacts on hunting areas are expected from the Applicant's Proposed Action Alternative (and Variations S3-C1 through S3-C6) and the Flagstaff A, Flagstaff B, Flagstaff B- Burnt River West, and Flagstaff B – Durkee alternatives. The Timber Canyon Alternative would not affect the ODFW hunting areas. No other high or moderate impacts on recreation are expected from the alternative routes and route variations analyzed in Segment 3.

SEGMENT 4—BROGAN

Table 3-374 presents the residual impacts on all alternative routes and route variations in Segment 4.

Table 3-374. Recreation Inventory Data and Residual Impacts in Segment 4—Brogan

Alternative Route	Total Length (miles)	Resource Inventory (miles)					Residual Impacts (miles)[1]		
		Hunting Areas[2]	Scenic Byways	Recreation Areas/State Parks	Recreation Management Areas	Trails	High	Moderate	Low
Applicant's Proposed Action	40.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variation S4-A1	*5.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S4-A2	*6.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S4-A3	*6.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*

Table 3-374. Recreation Inventory Data and Residual Impacts in Segment 4—Brogan									
Alternative Route	Total Length (miles)	Resource Inventory (miles)					Residual Impacts (miles)[1]		
		Hunting Areas[2]	Scenic Byways	Recreation Areas/State Parks	Recreation Management Areas	Trails	High	Moderate	Low
Tub Mountain South	40.5	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3
Willow Creek	34.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table Notes:
[1]Combined results of overall residual impacts may not sum due to overlapping impact locations.
[2]Hunting areas as identified using data provided by IDPR, ODFW, and Morrow County

Applicant's Proposed Action

The Applicant's Proposed Action has no high, moderate, or low impacts on recreation resources. Roaded natural, rural, semi-primitive motorized, and semi-primitive non-motorized ROS managed by the Malheur Field Office would be affected but impacts would be low. Long-term effects on the management of these ROS areas are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of these ROS areas, especially in the semi-primitive non-motorized ROS area. Motorized vehicles should avoid crossing semi-primitive non-motorized areas. If a vehicle must cross this area, existing trails or roads should be used.

Variations S4-A1 through S4-A3

Variations S4-A1 through S4-A3 have no high, moderate, or low impacts on recreation resources. Open and limited OHV designations would be affected but impacts would be low. Long-term effects on the open and limited OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the open and limited OHV designations.

Tub Mountain South Alternative

Tub Mountain South Alternative has no high or moderate impacts and 0.3 mile of low impacts where crossing the recreational trails.). To minimize potential effects on trails, existing access would be used (Selective Mitigation Measure 2), towers structures would be placed to avoid directly affecting the trail (Selective Mitigation Measure 8), and maximize the span over the trails (Selective Mitigation Measure 10).

Roaded natural, rural, semi-primitive motorized and semi-primitive non-motorized ROS areas managed by Malheur Field Office and limited and open OHV designations would be affected but impacts would be low. Long-term effects on the management of these ROS areas and OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from

construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas, especially in the semi-primitive non-motorized ROS area. Motorized vehicles should avoid crossing semi-primitive non-motorized areas. If a vehicle must cross this area, existing trails or roads should be used.

Willow Creek Alternative

Willow Creek Alternative has no high, moderate, or low impacts on recreation resources. Rural and semi-primitive motorized ROS areas managed by Malheur Field Office and limited and open OHV designations would be affected but impacts would be low. Long-term effects on the management of these ROS areas and OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas.

Conclusions

No high or moderate impacts on recreation resources are expected from the alternative routes or route variations analyzed in Segment 4. The Tub Mountain South Alternative is the only alternative that crosses recreation trails; however, impacts on recreation trails would be low.

SEGMENT 5—MALHEUR

Table 3-375 presents the residual impacts on all alternative routes and route variations in Segment 5.

Table 3-375. Recreation Inventory Data and Residual Impacts in Segment 5—Malheur

Alternative Route	Total Length (miles)	Resource Inventory (miles)					Residual Impacts (miles)[1, 2]		
		Hunting Areas[3]	Scenic Byways	Recreation Areas/State Parks	Recreation Management Areas	Trails	High	Moderate	Low
Applicant's Proposed Action	40.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variation S5-A1	*7.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S5-A2	*7.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S5-B1	*2.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S5-B2	*2.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Malheur S	43.5	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0
Malheur A	43.1	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0

Table Notes:
[1]Residual impacts do not include miles crossed for Recreation Management Areas.
[2]Combined results of overall residual impacts may not sum due to overlapping impact locations.
[3]Hunting areas as identified using data provided by IDPR, ODFW, and Morrow County

Applicant's Proposed Action

The Applicant's Proposed Action has no high, moderate, or low impacts on recreation resources. Roaded natural, rural, semi-primitive motorized and semi-primitive non-motorized ROS areas managed by Malheur Field Office and limited and open OHV designations would be affected but impacts would be low. Long-term effects on the management of these ROS areas and OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas, especially in the semi-primitive non-motorized ROS area. Motorized vehicles should avoid crossing semi-primitive non-motorized areas. If a vehicle must cross this area, existing trails or roads should be used.

Variation S5-A1

Variation S5-A1 has no high, moderate, or low impacts on recreation resources. Rural and semi-primitive motorized ROS areas managed by Malheur Field Office and open OHV designation would be affected but impacts would be low. Long-term effects on the management of these ROS areas and OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas.

Variation S5-A2

Variation S5-A2 has no high, moderate, or low impacts on recreation resources. Semi-primitive motorized and semi-primitive non-motorized ROS areas managed by the Malheur Field Office and open OHV designation would be affected but impacts would be low. Long-term effects on the management of these ROS areas and the OHV designation are not anticipated. However, short-term effects may include visual, noise, dust, and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas, especially in the semi-primitive non-motorized ROS area. Motorized vehicles should avoid crossing semi-primitive non-motorized areas. If a vehicle must cross this area, existing trails or roads should be used.

Variation S5-B1

Variation S5-B1 has no high, moderate, or low impacts on recreation resources. Roaded natural and semi-primitive motorized ROS areas managed by the Malheur Field Office and limited and open OHV designations would be affected but impacts would be low. Long-term effects on the management of these ROS areas and OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas.

Variation S5-B2

Variation S5-B2 has no high, moderate, or low impacts on recreation resources. Roaded natural, rural, and semi-primitive motorized ROS areas managed by the Malheur Field Office and limited and open OHV designations would be affected but impacts would be low. Long-term effects on the management of these ROS areas and OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas.

Malheur S Alternative

Malheur S Alternative has no high, moderate, or low impacts on recreation resources. Malheur S Alternative crosses the Owyhee River Below the Dam SRMA for 1.3 miles (Link 5-30). This SRMA coincides with the Owyhee River Below the Dam ACEC (refer to Section 3.2.6) and Owyhee River Below the Dam suitable Wild and Scenic River (refer to Section 3.2.11). The recreation values of this SRMA include high-quality scenery, driving and walking/hiking for pleasure, varied wildlife and historic resource viewing, photography, camping, hunting, fishing, and water play at the Snively Hot Springs Recreation site (Link 5-50) (BLM 2002). This area is considered an avoidance area for new right-of-ways. New right-of-ways will only be granted if there is minimal conflict with identified relevant and important resource values and adverse impacts could be mitigated (BLM 2002).

Roaded natural, rural, semi-primitive motorized and semi-primitive non-motorized ROS areas managed by Malheur Field Office and limited and open OHV designations would be affected but impacts would be low. Long-term effects on the management of these ROS areas and OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas, especially in the semi-primitive non-motorized ROS area. Motorized vehicles should avoid crossing semi-primitive non-motorized areas. If a vehicle must cross this area, existing trails or roads should be used.

Malheur A Alternative

Malheur A Alternative has no high, moderate, or low impacts on recreation resources. Similar to Malheur S Alternative, Malheur A crosses the Owyhee River Below the Dam SRMA for 2.4 miles. Refer to Malheur S Alternative for more information regarding this crossing.

Roaded natural, rural, semi-primitive motorized and semi-primitive non-motorized ROS areas managed by Malheur Field Office and limited and open OHV designations would be affected but impacts would be low. Long-term effects on the management of these ROS areas and OHV designations are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the limited and open OHV designations and ROS areas, especially in the semi-primitive non-motorized ROS area. Motorized vehicles should avoid crossing

semi-primitive non-motorized areas. If a vehicle must cross this area, existing trails or roads should be used.

Conclusions

No high, moderate or low impacts on recreation resources would be expected from any of the alternative routes and route variations analyzed in Segment 5.

SEGMENT 6—TREASURE VALLEY

Table 3-376 presents the residual impacts on all alternative routes and route variations in Segment 6.

Table 3-376. Recreation Inventory Data and Residual Impacts in Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Resource Inventory (miles)					Residual Impacts (miles)[1, 2]		
		Hunting Areas[3]	Scenic Byways	Recreation Areas/State Parks	Recreation Management Areas	Trails	High	Moderate	Low
Applicant's Proposed Action	28.0	0.0	0.0	0.0	23.9	3.5	0.0	0.0	3.5
Variation S6-A1	*9.3*	*0.0*	*0.0*	*0.0*	*6.7*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S6-A2	*8.9*	*0.0*	*0.0*	*0.0*	*6.8*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S6-B1	*14.4*	*0.0*	*0.0*	*0.0*	*14.4*	*2.9*	*0.0*	*0.0*	*2.9*
Variation S6-B2	*14.1*	*0.0*	*0.0*	*0.0*	*14.1*	*1.5*	*0.0*	*0.0*	*1.5*

Table Notes:
[1]Residual impacts do not include miles crossed for Recreation Management Areas.
[2]Combined results of overall residual impacts may not sum due to overlapping impact locations.
[3]Hunting areas as identified using data provided by IDPR, ODFW, and Morrow County

Applicant's Proposed Action

The Applicant's Proposed Action has no high or moderate impacts and 3.5 miles of low impacts where crossing the recreational trails. To minimize potential effects on trails, existing access will be used (Selective Mitigation Measure 2), towers structures would be placed to avoid directly affecting the trail (Selective Mitigation Measure 8), and maximize the span over the trails (Selective Mitigation Measure 10).

In addition to crossing recreational trails, the Applicant's Proposed Action crosses Jump Creek SRMA (1.3 miles) (Link 6-20), Owyhee Front SRMA (10.9 miles) (Link 6-20), Squaw Creek Addition SRMA (1.9 miles) (Link 6-30), and Owyhee ERMA (9.8 miles) (Link 6-30) are managed under the Owyhee Resource Management Plan. The Applicant's Proposed Action also crosses limited to designated, limited to existing, and limited OHV designations and the primitive, roaded natural, and semi-primitive motorized. These SRMAs, limited OHV designations, and ROS areas would be affected but impacts would be low. Long-term effects on the management of these SRMAs, OHV designations, and ROS areas are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other

resources to reduce impacts on the natural environment of the SRMAs and limited OHV designations, especially in the semi-primitive non-motorized ROS area of the Jump Creek SRMA. Motorized vehicles should avoid crossing primitive and semi-primitive non-motorized areas. If a vehicle must cross a semi-primitive non-motorized area, existing trails or roads should be used.

Variations S6-A1 and S6-A2

Variations S6-A1 and S6-A2 do not have high, moderate, or low impacts. Variations S6-A1 and S6-A2 cross Jump Creek SRMA (1.2 miles) and Owyhee ERMA (5.5 miles); primitive, roaded natural, and semi-primitive motorized ROS areas, and limited to designated, limited to existing, and limited OHV designations. These SRMAs, OHV designations, and ROS areas would be affected but impacts would be low. Long-term effects on the management of these SRMAs, OHV designations, and ROS areas are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the SRMAs and limited OHV designations, especially in the semi-primitive non-motorized ROS area of the Jump Creek SRMA (Link 6-20). Motorized vehicles should avoid crossing primitive and semi-primitive non-motorized ROS areas. If a vehicle must cross this area, existing trails or roads should be used.

Variation S6-B1

Similar to the Applicant's Proposed Action Alternative, Variation S6-B1 has no high or moderate impacts and 2.9 miles of low impacts where crossing recreational trails. To minimize potential effects on trails, existing access will be used (Selective Mitigation Measure 2), towers structures would be placed to avoid directly affecting the trail (Selective Mitigation Measure 8), and maximize the span over the trails (Selective Mitigation Measure 10).

In addition to crossing recreational trails, the Applicant's Proposed Action Alternative, crosses Jump Creek SRMA (0.1 mile) (Link 6-20), Owyhee Front SRMA (8.6 miles) (Link 6-20), Squaw Creek Addition SRMA (1.9 miles) (Link 6-30), and Owyhee ERMA (3.8 miles) (Link 6-35) are managed under the Owyhee Resource Management Plan. The Applicant's Proposed Action Alternative, also crosses limited to designated and limited to existing OHV designations and the primitive, roaded natural, and semi-primitive motorized. These SRMAs, limited and open OHV designations, and ROS areas would be affected but impacts would be low. Long-term effects on the management of these SRMAs, OHV designations, and ROS areas are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the SRMAs and limited and open OHV designations, especially in the semi-primitive non-motorized ROS area of the Jump Creek SRMA. Motorized vehicles should avoid crossing primitive areas. If a vehicle must cross this area, existing trails or roads should be used.

Variation S6-B2

Similar to the Variation S6-B1, Variation S6-B2 has no high or moderate impacts and 1.5 miles of low impacts where crossing recreational trails. To minimize potential effects on trails, existing access will be used (Selective Mitigation Measure 2), towers structures would be placed to avoid directly affecting the

trail (Selective Mitigation Measure 8), and maximize the span over the trails (Selective Mitigation Measure 10).

In addition to crossing recreational trails, the Applicant's Proposed Action Alternative, crosses Jump Creek SRMA (0.1 mile) (Link 6-20); Owyhee Front SRMA (8.6 miles) (Link 6-20), Squaw Creek Addition SRMA (1.9 miles) (Link 6-30), and Owyhee ERMA (3.8 miles) (Link 6-35) are managed under the Owyhee Resource Management Plan. The Applicant's Proposed Action Alternative, also crosses limited to designated and limited to existing OHV designations and the primitive, roaded natural, and semi-primitive motorized. These SRMAs, limited OHV designations, and ROS areas would be affected but impacts would be low. Long-term effects on the management of these SRMAs, OHV designations, and ROS areas are not anticipated. However, short-term effects may include visual, noise, dust and vehicle emissions from construction activities and equipment. Mitigation measures may be applied for other resources to reduce impacts on the natural environment of the SRMAs and limited OHV designations, especially in the semi-primitive non-motorized ROS area of the Jump Creek SRMA. Motorized vehicles should avoid crossing semi-primitive non-motorized areas. If a vehicle must cross this area, existing trails or roads should be used.

Conclusions

No high or moderate impacts on trails, hunting areas, recreation areas and state parks would be anticipated in Segment 6. Only minor effects on recreation management areas would be anticipated. The Applicant's Proposed Action Alternative crosses the greatest amount of recreation management areas; however, impacts would be minor.

This page intentionally left blank.

3.2.9 TRANSPORTATION

3.2.9.1 INTRODUCTION

This section describes transportation of the region within eastern Oregon and western Idaho that would be affected by the proposed B2H Project.

3.2.9.2 REGULATORY FRAMEWORK

FEDERAL

Federal Highway Administration

Section 101 of the National Highway System Designation Act of 1995 (revision of 23 CFR 470) designates the National Highway System in the U.S., including the District of Columbia and the Commonwealth of Puerto Rico, and authorized the Secretary of Transportation to make future modifications to the system. This includes interstate and U.S. highways. The American Association of State Highway and Transportation Officials and the Federal Highway Administration (FHWA) are responsible for interstate and U.S. highways in individual states.

Bureau of Land Management

Roads on BLM-administered land are typically managed through travel management planning BLM travel management plans identify designated areas and roads for type of motorized use, motorized travel restricted area, and seasons restricted. New and improved road construction on BLM-administered land used for B2H Project construction, operation, and maintenance must requirements identified by the BLM Travel Management Program and the BLM Manual Section 9113 (BLM 2011).

The use of existing roads for hauling oversize or over-weight loads, or hauling commercial or construction materials also requires prior written authorization from the BLM. It is anticipated that any use, improvement or construction of BLM roads would be addressed in the POD.

U.S. Forest Service

Travel management plans for USFS-administered land in the B2H Project area have been developed and typically identify designated areas and roads for type of motorized use, motorized travel restricted areas, and seasonal restrictions. For USFS-administered land, compliance with the Forest Service Manual and Forest Service Handbook would be required. Applicable handbooks include 7709.56 – *Road Preconstruction Handbook* (USFS 2011); 7709.57– *Road Construction Handbook* (USFS 1994); 7709.58 – *Transportation System Maintenance Handbook* (USFS 2009); and 7709.59 – *Road System Operations and Maintenance Handbook* (USFS 2009: Chapter 60), or most current edition. In addition, Forest Service Handbook 7709.56b (USFS 2014)- *Transportation Structures Handbook Chapter 70 – Road Bridge Design* – would be applied to design bridges and other road structures requiring structural engineering in conformance with the provisions of AASHTO's *LRFD Bridge Design Specifications, Current Edition*. In addition, signage and pavement markings would conform to the Manual on Uniform Traffic Control Devices (FHWA 2009), or most current edition. These requirements are not anticipated to apply to B2H Project two-track roads or to routes for all-terrain vehicles or utility-terrain vehicles.

The use of existing roads for hauling oversize or over-weight loads, or hauling commercial or construction materials also requires prior written authorization from USFS. All use, maintenance, or improvement of Wallowa-Whitman National Forest System Roads shall require an approved road-use permit. Road-use permit applications shall be submitted a minimum of 3 weeks prior to the anticipated need for such activities. It is anticipated that any use, improvement or construction of USFS roads would be addressed in the POD.

To comply with the 2005 Travel Management Rule, the Wallowa-Whitman National Forest recently updated the Wallowa-Whitman National Forest Travel Analysis Report. The final plan was released in December of 2015 (USFS 2015).

Federal Aviation and Administration

Congress approved and on August 23, 1958, the President signed the Federal Aviation Act, which transferred the Civil Aeronautics Authority's functions to a new independent Federal Aviation Administration responsible for civil aviation safety. Therefore, FAA is charged with administrating all navigable airspace associated with NWSTF Boardman. As such; Title 14, Aeronautics and Space of Chapter 1 of the FAA, Department of Transportation, requires a Notice of Proposed Construction or Alteration (Form 7460-1) for a tower or span that meets the following criteria:

- Exceeds 200 feet above ground level
- Within 20,000 feet (3.79 miles) of a public-use or military airport that exceeds a 100:1 sloping surface from any point on the runway of each airport with at least one runway more than 3,200 feet
- Within 10,000 feet (1.89 miles) of a public-use or military airport that exceeds a 50:1 sloping surface from any point on the runway of each airport with its longest runway no more than 3,200 feet
- Within 5,000 feet of a public-use heliport that exceeds a 25:1 sloping surface
- When requested by FAA
- Any construction or alteration located on a public-use airport or helicopter regardless of height or location

In addition, special-use airspace is regulated under an MOU between the FAA and the DoD titled *Concerning Environmental Review of Special Use Airspace Actions*, dated October 4, 2005. This MOU promotes early coordination between the FAA and the DoD during the environmental review process associated with the establishment, designation, and modification of special-use airspace (October 2005). The Navy has provided information to the Applicant indicating that similar conditions as those identified in the existing use agreement in place for the BPA 69-kV line would apply to the B2H Project as they are both aboveground utilities along a similar easement corridor (M. Vaughn, Idaho Power Company, email communication with author, 2016).

STATE REGULATORY AUTHORITIES

Roadways

State departments of transportation are responsible for building and maintaining state highways and routes. As discussed above, these states adopt design standards, specifications and guidelines for state highways and routes as well as the federal interstates and highways. The transportation departments also provide encroachment and occupancy permits for utility construction and operation activities. The state regulations and design standards are discussed for each state below.

Oregon Department of Transportation

The most current ODOT Oregon Standard Specification for Construction would provide guidance on design standards and specifications for construction, including Section 00200 – Temporary Features and Appurtenances; Section 00300 – Roadwork; Part 01000 – Right-of-Way Development and Control; and other sections as applicable.

Oregon Administrative Rule 734-055 requires an encroachment permit from ODOT Highway Division to construct pole lines, which include poles, wires, guys, anchors, and related fixtures within or across state road rights-of-way (ODOT 2016). The rule applies to and governs the location, installation, construction, maintenance, and use of pole lines and other operations on the state highway right-of-way and properties under ODOT jurisdiction. The ODOT district manager reviews permit applications for the following:

- Accommodation of utility facilities with no adverse effect on traffic safety, operation, maintenance, and aesthetic quality of the highway system
- Incorporation of the appropriate industry code standards and American Association of State Highway and Transportation Officials publications
- Placement of utility installations in reasonable locations for construction and maintenance
- Safe and unimpaired use of the highway
- Evaluation of environmental and economic impacts of any loss or impairment of productive agricultural land associated with alternatives of the utility facilities that are outside the highway right-of-way

Oregon Department of Aviation

The Oregon Department of Aviation has jurisdiction over many aspects of safe operation and aviation in Oregon. Notably, OAR 738-070-60 provides guidelines for determining whether specific objects or structures constitute a hazard to air navigation. Guidelines and regulations set forward by Oregon Department of Aviation apply to state and local facilities.

Oregon Forest Lands

In Oregon, activities on non-federal forest land must also comply with the Oregon Forest Practices Act rules; Oregon Revised Statute 527, and its attendant rules; and Oregon Administrative Rule Chapter 629, Divisions 605–665. These rules will apply to portions of the B2H Project that cross forest land. The

Oregon Forest Practices Act rules are intended to provide resource protection and set standards for planning forestry practices; conducting harvesting, road construction, and maintenance; protecting state water quality; limiting effects on specified resource sites (e.g., streams, wetlands, nesting bird sites); providing for public safety downslope of high landslide hazard locations; and determining reforestation or land conversion requirements. Under the Oregon Forest Practices Act, strict regulations govern the location, construction, maintenance, and repair of roads on non-federal forest land. Roads must avoid marshes; meadows; drainage channels; riparian management areas; and, when possible, steep terrain.

Idaho Department of Lands

Idaho APA 20.02.01 *Rules Pertaining to the Idaho Forest Practices Act* provides guidelines and road standards to maintain forest productivity, water quality, and fish and wildlife habitat.

Idaho Transportation Department

The most current Idaho Transportation Department's (ITD) Standard Specifications for Highway Construction, and Traffic Manual, and Utility Management manuals would provide guidance on construction, operation, and maintenance activity on IDT managed roadways.

In addition, construction, operation or maintenance activities on local highway facilities would be coordinated with the Local Highway Technical Assistance Council (LHTAC) and comply with the most recent design and construction, right-of-way and maintained manuals.

The ITD's Division of Aeronautics serves provides aviation services for the Idaho. The Division of Aeronautics provides guidance on land-use compatibility as well oversight for the safety and security of the airport system for Idaho.

LOCAL REGULATORY AUTHORITIES

County and local (other) roads have standards set by each county or city to guide the building and maintenance of these roads. Similar to the Department of Transportation of each state, counties and cities have encroachment permitting requirements for utility construction and operation activities. Before conducting work within or above a road right-of-way, an encroachment permit or similar authorization would be required from the applicable jurisdictional agency at locations where construction activities will occur within or above the public road right-of-way. The specific requirements of the encroachment permit from the applicable transportation agencies are determined on a project-by-project basis. The encroachment permit issued by state and local jurisdictions may include the following requirements:

- Identify all roadway locations where special construction techniques (e.g., night construction) will be used to minimize impacts on traffic flow.
- Develop circulation and detour plans to minimize impacts on local street circulation. This may include the use of signing and flagging to guide vehicles through or around the construction zone.
- Schedule truck trips outside of peak morning and evening commute hours.
- Limit, to the extent possible, lane closures during peak hours.

- Include detours for areas potentially affected by project construction.
- Install temporary traffic-control devices as specified in the Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA 2016).
- Store construction materials only in designated areas.

3.2.9.3 Issues Identified for Analysis

- Could B2H Project construction cause an increase in local road traffic or cause lane closures?
- Would the B2H Project cause wear and tear on existing roads?
- Would the B2H Project create new roads?
- Would construction and operation activities affect highways, bridges, and railroads?
- Would the B2H Project disrupt access for emergency-service providers, school buses, and mail delivery?
- Would the B2H Project affect airports and landing strip operations?
- Would the power lines and towers reduce aircraft routes for recreation, commercial use, military, or crop management?

3.2.9.4 Methods

The general study methods used to analyze the impacts of the B2H Project in this EIS are described in Section 3.1.2. This section discusses how the study methods are applied to assess the impacts of the B2H Project on transportation.

As described in Section 2.3.1.4, typical access roads are classified in to three major types – (1) new roads (including new primitive roads or new bladed roads); (2) existing roads that will require substantial modification; and (3) existing roads that would not require substantial modification. Refer to Table 2-1 for information regarding the Typical Design Characteristics of access roads. Design standards, specifications, and guidelines that would be used for design and traffic control on roadways identified for use by the B2H Project would adhere to FHWA protocols in accordance with Oregon and Idaho adopted design standards and specifications for federal and state highways/routes. In addition, new and improved roads used for construction, operation, and maintenance must meet or exceed the minimum standards of width, alignment, grade, surface, and other requirements identified by the BLM Travel Management Program and the BLM Manual Section 9113 (BLM 2011) and the Forest Service Manual and Forest Service Handbook.

Data Sources

Federal, state, and local transportation and access facilities and systems are located throughout the B2H Project, including roadways, airports and aviation facilities, and railroad facilities. The transportation and access resources (roadways, aviation facilities, and railroads) crossed by the transmission line alternative routes were identified using primary and secondary data sources, aerial photography interpretation, and data gathered from stakeholder input. Specific processes for each data collection effort are discussed below.

Roadways

An inventory of roadways crossed by the reference centerlines was conducted utilizing GIS road data and includes interstates, highways, and a variety of other roads. The roadways identified include those operated and maintained on federal, state, local (county and city), and private levels. Major roads include interstates, federal highways (Interstate), and state highways. The other roads category includes all roads types (improved county roads, city or country roads, two –track native soil roads) contained in the GIS data. Discussions of the major roads, likely to be affected during construction, are discussed by alternative route in Section 3.2.9.5.

Railroads

An inventory of railroads crossed by the reference centerlines for the alternative routes was identified utilizing the GIS railroad data. Union Pacific Railroad Company is the only entity operating within the study area.

Aviation Facilities

An inventory of aviation facilities (i.e., airports, airstrips and heliports) was collected for the 1-mile wide study area. GIS data for FAA registered facilities was used to identify registered airports, including private and public facilities. Aerial imagery also was used to supplement the FAA data to identify state and local airports within the one-mile-wide study corridor. In addition, input from public comment resulted in identification of one private landing strip located in the study area. This landing strip was digitized by hand to be included in the EIS study corridor.

ANALYSIS AREA

Specific access routes for each alternative route are not known at this time because the location of transmission line facilities (tower locations, etc.) has not yet been identified. Once a route is selected, detailed engineering would occur to site tower locations and design access roads. If this were done for all alternative routes being studied, the costs to develop detailed engineering would not be practical. Therefore, the study corridor for transportation is the same as the B2H Project area to account for transportation facilities that may be crossed by the B2H Project. Refer to MV-13 for locations of transportation facilities in the B2H Project area.

IMPACT ASSESSMENT AND MITIGATION PLANNING

Criteria for Assessing Level of Impacts

Criteria were developed to assess the level of potential effects on transportation facilities associated with implementation of the B2H Project (Table 3-377).

Table 3-377. Criteria for Assessing Level of Impacts on Transportation	
Level of Impacts	**Description**
High	• Areas where the B2H Project would conflict physically and create a direct long-term conflict with existing transportation infrastructure. • Areas where the B2H Project would conflict with the management of a transportation facility that would not allow for a facility to continue operating.
Moderate	• Areas where the B2H Project would create short-term impacts on transportation infrastructure during construction, operation, and maintenance activities • Areas where the B2H Project would reduce the level of service of a federal, state or county highway.
Low	• Areas where the B2H Project would not conflict with the operation or maintenance of existing transportation infrastructure. • Areas where congestion or disruption of the use of transportation infrastructure would be short term and reversible.

Effects Analysis

Assessment of Initial Impacts

To determine initial impacts that could result from implementation of the B2H Project, the level of a potential effect on transportation was assessed. The level of impact was determined based on the compatibility of the transportation system with construction of a new transmission line. The initial impacts were assigned using the criteria presented in Table 3-378.

Table 3-378. Summary of Initial and Residual Impacts on Transportation			
Resource	**Initial Impacts**	**Selective Mitigation Measures Applied**	**Residual Impacts**
Federal, State, or County Highway	Moderate	1, 2, 5, 8	Low
Transportation Infrastructure (new and improvements on existing)	Moderate	1,2,5,6	Low
Airport or heliport	High	7, 8	Low
Landing Strip or Runway	High	7, 8	Moderate
Railroad	High	2	Low

Because the FAA is charged with administrating all navigable airspace associated with NWSTF Boardman; Title 14, Aeronautics and Space of Chapter 1 of the FAA, Department of Transportation will apply. A Notice of Proposed Construction or Alteration (Form 7460-1) will be required for a tower or span that meets the following criteria:

- Exceeds 200 feet above ground level
- Within 20,000 feet (3.79 miles) of a public-use or military airport that exceeds a 100:1 sloping surface from any point on the runway of each airport with at least one runway more than 3,200 feet
- Within 10,000 feet (1.89 miles) of a public-use or military airport that exceeds a 50:1 sloping surface from any point on the runway of each airport with its longest runway no more than 3,200 feet
- Within 5,000 feet of a public-use heliport that exceeds a 25:1 sloping surface

- When requested by the FAA
- Any construction or alteration located on a public-use airport or helicopter regardless of height or location

The guidelines and regulations set forward by Oregon Department of Aviation also apply to state and local facilities.

In addition, Oregon Administrative Rule 734-055 requires an encroachment permit from ODOT Highway Division to construct pole lines, which include poles, wires, guys, anchors, and related fixtures within or across state road rights-of-way (ODOT 2016).

In Idaho, ITD Standard Specifications for Highway Construction, and Traffic Manual, and Utility Management manuals would provide guidance on construction, operation, and maintenance activity on IDT managed roadways. B2H Project construction, operation or maintenance activities on local highway facilities would be coordinated with the LHTAC and comply with the most recent design and construction, right-of-way and maintained manuals.

Mitigation Planning and Effectiveness

As described in Section 2.3, the Applicant intends to use existing roads for the B2H Project where possible. In areas where the existing roads do not meet the requirement s of the Applicant, existing roads would be enhanced and/or new roads would be constructed to facilitate project activities. In all cases, road improvements and new roads constructed for the B2H Project also would be constructed to meet agency and local government standards and/or requirements.

As identified in Table 2-7, the Applicant would develop a detailed Traffic and Transportation Management Plan (as part of the POD). This plan will identify specific measures that would be implemented to comply with federal, state, and local policies and standards relative to planning, siting, improvement, operation, and maintenance of roads for the B2H Project. These measures also would apply to state and private land.

The Applicant would incorporate design features (refer to Table 2-7) as part of the B2H Project description to limit impacts on transportation infrastructures.

The level of B2H Project effects on transportation resources that could result from implementation of the B2H Project was used as the basis for assessing initial impacts. Design features of the B2H Project for environmental protection (Table 2-7) that would reduce impacts on transportation resources were considered when assessing potential impacts on specific resources. Based on the level of potential effect, initial impacts were assigned (Table 3-378) using the criteria presented in Table 3-377)

In addition to design features (Table 2-7); selective mitigation measures were developed to minimize adverse impacts on transportation infrastructure and systems. The selective mitigation measures that would be applied are identified below:

- ***Selective Mitigation Measure 1 (Limit Widening of Existing Roads).*** Applied to reduce the amount of road upgrades and construction in areas that are identified as sensitive (example

resources: visual, wildlife , water, soils). Existing roads would be used to the extent possible/practicable.

- ***Selective Mitigation Measure 2 (Use Existing Access and/or Stream Crossings).*** Applied to minimize construction of access roads in areas identified as sensitive (example resources: visual, wildlife, water, soils). Existing access and stream crossings would be used to the extent possible/practicable.
- ***Selective Mitigation Measure 5 (Minimize Vegetation Clearing).*** Applied to new and improved roadways to minimize B2H Project effect on the existing environment. Selectively removing vegetation (edge feathering) instead of clearing a straight line would minimize effects from construction of new roads.
- ***Selective Mitigation Measure 6 (Limit New or Improved Accessibility).*** Applied to minimize new opportunities for public access via new or improved access routes.
- ***Selective Mitigation Measure 7 (Tower Design Modification).*** Applied to meet FAA and NWSTF Boardman air space requirements where necessary.
- ***Selective Mitigation Measure 8 (Span and/or Avoid Sensitive Features)***. Applied to avoid railroad right-of-way, landing strips, roadway right-of-way, and transportation interchange/intersections. This would be applied as needed in compliance with requirements set forward by FAA, Federal Railroad Administration, ODOT and ITD.

Residual Impacts

The above listed selective mitigation measures are applied to reduce the level of impacts associated with B2H Project construction, operation, and maintenance. Residual impacts are anticipated impacts on transportation resources after the application of the selective mitigation measures. The level of potential residual impacts on transportation resources associated with implementation of the B2H Project was assessed using the criteria presented in.

3.2.9.5 Affected Environment

This section identifies the transportation facilities within the study area that could be affected by construction, operation, and maintenance of the B2H Project. Transportation facilities evaluated within the study area include railroads airports, landing strips and also roadways broken out as follows:

- Federal Highway (Interstate): Designed with long-distance travel in mind connecting 48 continuous states.
- State Highway: Serve regional and intrastate traffic.
- County Road: Serves local traffic and can vary from multi-lane roads to dirt roads.
- Other Road: Include city or private, two-track native soil roads and any other roads identified in GIS dataset not already categorized above.

SEGMENT 1—MORROW-UMATILLA

Table 3-379 below presents the transportation resource inventory for Segment 1.

Table 3-379. Transportation Inventory Data for Segment 1—Morrow-Umatilla

Transportation Facility Type	Number of Facilities Present within 1 mile corridor
Federal Highway	4
State Highway	8
County Road	1
Other Road	66
Airport	None
Airstrips	None
Rail Road Mainline	1
Rail Spur	7
Rail Siding	7
Railyard	1

Highways, Roads, Bridges, Railroads

The largest roadway in the study area is I-84 (collocated with U.S. Highway 30) providing an east-west travel route through the study area and onward. North-south travel within Segment 1 is facilitated by Bombing Range Road, State Highway 207, and U.S. Highway 395.

Union Pacific Railroad is the only rail operator within Segment 1. The railroad enters the B2H study area at the northwest corner (near Umatilla, Oregon) where the Segment 1 alignments begin. It continues north of I-84 until it drops down crossing the Umatilla River continuing east to Pendleton or farther south to Pilot Rock. Table 3-379 shows the miles of existing transportation facilities crossed by the proposed alternative routes in Segment 1.

Airports, Airstrips and Heliport

There are no airports, airstrips, or heliports located within the one-mile-wide study area for Segment 1.

SEGMENT 2—BLUE MOUNTAINS

Table 3-380 below presents the transportation resource inventory for Segment 2.

Table 3-380. Transportation Inventory Data for Segment 2—Morrow-Umatilla

Transportation Facility Type	Number of Facilities Present within 1 mile corridor
Interstate Highway	1
U.S. Highway	None
State Highway	2
County Road	None
Other Road	17
Airport	None
Airstrips	None
Rail Road Mainline	1

Table 3-380. Transportation Inventory Data for Segment 2—Morrow-Umatilla	
Transportation Facility Type	**Number of Facilities Present within 1 mile corridor**
Rail Spur	None
Rail Siding	None
Railyard	None

Highways, Roads, Bridges, Railroads

The largest roadway in the study area is I-84 (collocated with U.S. Highway 30) providing an east-southwest travel route through the study area and onward. State Highway 244 spurs off of I-84 traveling west while State Highway 237 provides a north-south travel route.

Union Pacific Railroad is the only rail operator within the study corridor. Within Segment 2, the railroad runs parallel (and north) of I-84 until it drops down through North Powder continuing south. Table 3-386 shows the miles of existing transportation facilities crossed by the proposed alternative routes in Segment 2.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located in Segment 2 of the Study corridor.

SEGMENT 3—BAKER VALLEY

Table 3-381 below presents the transportation resource inventory for Segment 3.

Table 3-381. Transportation Inventory Data for Segment 3—Morrow-Umatilla	
Transportation Facility Type	**Number of Facilities Present within 1 mile corridor**
Interstate Highway	None
U.S. Highway	None
State Highway	None
County Road	None
Other Road	156
Airport	None
Airstrips	None
Rail Road Mainline	1
Rail Spur	None
Rail Siding	4
Railyard	None

Highways, Roads, Bridges, Railroads

The largest roadway in the study area is I-84 (collocated with U.S. Highway 30) providing an east-southwest travel route through the study area and onward. In addition Old Oregon Trail Highway, and Union Pacific Railroad parallel Interstate 84 (east-west) until they reach the boundary of Segment 3 in Dixie, Oregon in Baker County.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located in Segment 3 of the Study corridor.

SEGMENT 4—BROGAN

Table 3-382 below presents the transportation resource inventory for Segment 4.

Table 3-382. Transportation Inventory Data for Segment 4—Morrow-Umatilla

Transportation Facility Type	Number of Facilities Present within 1 mile corridor
Interstate Highway	1
U.S. Highway	2
State Highway	None
County Road	None
Other Road	45
Airport	None
Airstrips	1
Rail Road Mainline	1
Rail Spur	None
Rail Siding	None
Railyard	None

Highways, Roads, Bridges, Railroads

The largest transportation facilities in Segment 4 are Interstate 84, U.S. Highway 30, and U.S. Highway 26 which provide north to southeast travel. Union Pacific Railroad is located on the north side Interstate 84 and then exits the B2H Project area heading towards Weiser.

Airports, Airstrips, and Heliport

The Gum Creek airstrip is a dirt airstrip located within Segment 4 about 1.5 miles west of Jamieson, Oregon. The airstrip is privately operated and has been used to support agricultural practices since the 1980s.

SEGMENT 5—MALHEUR

Table 3-383 below presents the transportation resource inventory for Segment 5.

Table 3-383. Transportation Inventory Data for Segment 5—Malheur

Transportation Facility Type	Number of Facilities Present within 1 mile corridor
Interstate Highway	None
U.S. Highway	1
State Highway	None
County Road	None
Other Road	19
Airport	None
Airstrips	None
Rail Road Mainline	None

Table 3-383. Transportation Inventory Data for Segment 5—Malheur	
Transportation Facility Type	**Number of Facilities Present within 1 mile corridor**
Rail Spur	None
Rail Siding	None
Railyard	None

Highways, Roads, Bridges, Railroads

The largest transportation facility in Segment 5 is U.S. Highway 20 is the largest transportation facility which provides east-west transportation between Vale, Juntura and onward.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located in Segment 5 of the Study corridor.

SEGMENT 6—TREASURE VALLEY

Table 3-384 below presents the transportation resource inventory for Segment 6.

Table 3-384. Transportation Inventory Data for Segment 6—Morrow-Umatilla	
Transportation Facility Type	**Number of Facilities Present within 1 mile corridor**
Interstate Highway	None
U.S. Highway	1
State Highway	1
County Road	None
Other Road	13
Airport	None
Airstrips	None
Rail Road Mainline	None
Rail Spur	None
Rail Siding	None
Railyard	None

Highways, Roads, Bridges, Railroads

The largest transportation facility in Segment 6 is U.S. Highway 95 which provides north-south transportation between Marsing, Jordan Valley and onward.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located in Segment 6 of the Study corridor.

3.2.9.6 ENVIRONMENTAL CONSEQUENCES (RESULTS OF ANALYSIS)

TYPES OF POTENTIAL EFFECTS

The improvement of existing access and construction of new roads for the B2H Project would result in effects on transportation resources. Short and long-term effects associated with construction, operation, and maintenance of the B2H Project could include:

- Increased traffic on roadways from construction personnel and construction equipment (short term).
  - During construction, roadways would experience an increase in the volume of traffic as a result of construction personnel commuting from towns in the vicinity of the B2H Project to the job site(s), typically in the morning and evenings.
  - Throughout the workday, deliveries of materials and transport of construction equipment and/or personnel to various work areas could occur.
  - Increases in traffic volume (both from commuting to/from the worksite and/or from construction related activities) could result in congestion of traffic on the existing road network and potentially interfere with school and mail routes. Increased traffic volume could result in increased accidents on the existing roadway network and require additional emergency response.
- Traffic delays and/or temporary closures of roadways and/or railroads during construction (short term).
  - Construction of the B2H Project would require conductors to span roadways and railroads. Construction of the B2H Project would not alter the alignment of roadways and railroads crossed by the B2H Project, but delays and/or temporary closures could occur because of safety concerns during stringing operations of conductors.
- Potential interference with railroad communication signal frequencies for switching facilities (short term).

No effects on existing airports are anticipated. Short-term effects on private landing strips could occur during construction of the B2H Project from the presence of large equipment. Long-term effects from B2H Project infrastructure could result in slight changes in air travel patterns from B2H Project infrastructure.

No Action Alternative

Under the No Action Alternative, a right-of-way grant for the B2H Project would not be granted. The B2H Project would not be developed and the environment would remain as it presently exists.

Effects Common to All Alternatives

Highways, Roads, Bridges, Railroads

With implementation of design features of the B2H Project for environmental protection and selective mitigation measures for the B2H Project, effects on highways, roads, bridges and railroads are expected to be low for any route selected.

Potential impacts on transportation from geotechnical activities would be largely avoided through implementation of design features of the B2H Project for environmental protection (refer to Table 2-7). Due to the intermittent nature and short duration of geotechnical investigation activities, impacts on transportation would be minor to negligible. Geotechnical testing would be coordinated the between

Applicant, ODOT, and Union Pacific to ensure compliance with safety requirements, and acquisition of encroachment permits, as needed.

Haul routes for water and construction materials are not yet identified. Once a route is selected, detailed engineering would occur to site tower locations, design access roads, and identify the roads needed for hauling. If this were done for all alternative routes being studies, the costs to develop detailed engineering would not be practical. Modification of existing roadways, new access to existing roadways, or construction of new access roadways would be closely coordinated with ODOT, ITD, county public works and transportation engineering staff to ensure appropriate compliance with local policies, standards, and permit requirements. In addition, the appropriate county permitting authority would oversee the hauling of large project equipment and material on county roads and bridges. The Applicant would submit a Traffic and Transportation Management Plan (as part of the POD) for approval by the appropriate federal and state agencies, local law enforcement, road departments, and local highway districts with authority to regulate use of public roads. This plan would be approved prior to the issuance of a Notice to Proceed with construction. This plan would specifically address existing conditions of roads identified for use in the POD (to be developed as part of the EIS process and approved prior to the BLM ROD); wear and tear on roads, bridges, and stream crossings; traffic control; access control; post-construction repair; and reclamation.

Ground transportation is anticipated to be the primary means of transportation construction and maintenance crews and equipment during construction. Helicopters would only be used as deemed necessary and will be incorporated in to the Traffic and Transportation Management Plan and POD if necessary.

The construction period is anticipated to be approximately 3 years from receipt of a Notice to Proceed. The B2H Project would be built in two spreads that would be constructed concurrently. During this time period, the increase in daily trips would occur primarily in the mornings and evenings due to construction workers commuting to and from the worksite. Therefore it is expected that the B2H Project would increase traffic (i.e., the number of daily trips) on the regional roadway network.

The direct effects of construction activities within rights-of-way of highways, local and other roads could include temporary road closures during truck delivery of large equipment and materials. Indirect effects could include road and bridge damage caused by vehicles and equipment (e.g., overhead-line cranes, concrete trucks, construction equipment, and material delivery trucks) when entering and leaving roads. Road-use permits (such as encroachment permits) or similar documents would require that construction contractors and the Applicant be responsible for rehabilitating or reconstructing roadways and structures during and after use. Construction traffic is not anticipated to disrupt access to residences. Where appropriate, the Applicant would provide the construction schedule to adjacent landowners.

Increased traffic and/or congestion and effects from slow moving, oversized loads of materials and/or construction equipment being delivered to multi-purpose construction yards would be most notable on county and other local roads that otherwise have low traffic and few options for detours. From the multi-purpose construction yards, materials and equipment would be dispersed where needed on the access

roads identified and approved in the POD. It also is anticipated that safety procedures would be outlined in the POD (i.e., temporary signage alerting drivers, flaggers, pilot trucks/escorts), would be followed to limit the potential of accidents. It is anticipated that deliveries and/or the transportation of construction equipment would be staggered during the work week to times when congestion from commuters is less likely to occur.

Although existing roads would be used to the extent possible, new access roads would be necessary for the B2H Project. New access developed for the B2H Project would typically be done under the assumption that new access would only be used by the Applicant's personnel for purposes associated with the B2H Project. It is anticipated these new access roads would be maintained by the Applicant and also would be incorporated in to the Traffic and Transportation Management Plan. The new access routes have the potential to increase access into areas previously inaccessible through unauthorized OHV use. The unauthorized access would have the potential for additional administrative considerations for agencies (i.e., additional enforcement, signage, disturbance and sensitive features, etc.). Through the application of selective mitigation measures to limit unauthorized access, close and rehabilitated unneeded roads; it is anticipated minimal impacts on the transportation system would occur.

Roadway maintenance during the construction period would be required in accordance with the Applicant's or/or agency standards and specifications for roadways. The Traffic and Transportation Management Plan will outline requirements for maintenance of federal, state, and local (other) roads to meet safety requirements.

Overhead construction activities could temporarily interfere with emergency services (fire, ambulance, and police) access and response, especially at locations that may be temporarily blocked by the construction zone. Roadway segments most likely to be affected are two-lane roadways that provide one lane of travel in each direction. The Applicant would coordinate in advance with emergency services, as well as with essential services such as post offices and school buses, as needed.

Substation construction associated with the B2H Project could cause temporary road and lane closures that could disrupt traffic flow or access and response by emergency-service providers. Construction activities also could disrupt pedestrian movement and safety on local (other) roads; temporary restrictions on access to properties, and damage local (other) roads and bridges in the area. If construction requires an encroachment permit, the permit requirements would be specified by the jurisdictional agency; the permitting agency and the Applicant would be responsible for enforcing the terms of the permit.

The Applicant has prepared a Traffic and Transportation Management Plan (Appendix A2 of the POD). The Traffic and Transportation Management Plan and the requirements of state and county encroachment permits would provide measures to ensure that traffic disruptions and delays are minimized, and that damage to roads and bridges is repaired. The Traffic and Transportation Management Plan would be approved by the appropriate federal, state, and local agencies before any Notice to Proceed is issued for construction. The Traffic and Transportation Management Plan would

ensure that B2H Project trips are planned in accordance with existing road conditions, specifications and safety standards. The Applicant would obtain permits that describe circulation and detour routes, lane closures, and other relevant factors. With implementation of the approved Traffic and Transportation Management Plan, traffic interruptions and road damage impacts would be low and short term during construction of the proposed B2H Project.

After construction is completed, any new roads developed for the B2H Project connecting to multi-use areas and other temporary-use areas would be removed and reclaimed to preconstruction conditions, unless the landowner requests otherwise. Roads developed for pulling-and-tensioning sites would be permanent if they would be needed for ongoing operation and maintenance.

During construction, railroad communications systems used to operate switching facilities could experience interference with signal frequencies. Coordination of scheduling with the railway operator during construction (specifically stringing of conductors) could avoid curtailment of railway operations. In addition, induction in the rails, especially during a short-circuit event, can cause risk to persons along the rail and to signal systems. Mitigation of potential interruptions and safety concerns would be addressed through coordination with Union Pacific prior to construction.

Airports, Airstrips, and Heliport

Ground transportation is anticipated to be predominant method of transportation for the construction, operation, and maintenance of B2H Project. Where deemed necessary, delivery of equipment and materials to structure sites; structure placement; hardware installation; and wire-stringing operations may be facilitated by helicopters. Various factors such as access to structure locations, the construction schedule, and construction economics would determine whether helicopters are used for structure erection. If helicopters are used, helicopter construction activities would be based at a fly yard (a project material staging area). The fly yards would be sited to permit a maximum fly time of 4 to 8 minutes to reach structure locations. If used, helicopter flights associated with B2H Project operations could affect airports, public and private, and heliports near the B2H Project area. These flights would be limited to the controlled zones identified by the FAA throughout the study corridor.

Civilian air-traffic patterns would not be affected by the placement of new structures or conductors because the B2H Project would not violate vertical obstruction prohibitions. In addition, coordination with airstrip operators would be necessary to avoid interference with airstrip operation.

SEGMENT 1—MORROW-UMATILLA

Table 3-385 presents the residual impacts on all alternative routes and route variations in Segment 1.

Table 3-385. Transportation Inventory Data and Residual Impacts for Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)		
		Federal Highway	State Highway	County Road	Rail	Landing Strip	High	Moderate	Low
Applicant's Proposed Action	91.9	0.4	0.7	0.0	1.1	0.0	0.0	0.0	2.2
Variation S1-B1	*6.4*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.2*
Variation S1-B2	*6.4*	*0.5*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.7*
East of Bombing Range Road	92.3	0.4	0.7	0.0	1.1	0.0	0.0	0.0	2.2
Applicant's Proposed Action – Southern Route	99.1	0.4	0.7	0.0	0.8	0.0	0.0	0.0	1.8
West of Bombing Range Road – Southern Route	95.6	0.4	0.4	0.0	0.9	0.0	0.0	0.0	1.7
Longhorn	88.2	0.4	0.7	0.0	1.7	0.0	0.0	0.0	2.8
Interstate 84	84.7	26.7	1	0.1	4	0.0	0.0	0.0	29.3
Variation S1-A1	*18.5*	*14.0*	*0.8*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*14.3*
Variation S1-A2	*18.5*	*0.1*	*0.2*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.5*
Interstate 84 – Southern Route	93.4	26.6	1.0	0.1	3.7	0.0	0.0	0.0	28.9

Table Note: There are no airports within the 1 mile study corridor this table only reports on landing strips. Local and other roads are not analyzed through the resource inventory process because the initial and residual impacts are anticipated to be low.

Applicant's Proposed Action Alternative

Highways, Roads, Bridges, Railroads

The Applicant's Proposed Action Alternative would result in a low level of impacts on highways, roads, bridges and railroad facilities. The types of effects on the transportation system would be similar to those described in Effects Common to All Alternatives section with the addition of impacts on Bombing Range Road and the existing railroad as discussed below.

Bombing Range Road is located along the eastern boundary of NWSTF Boardman and is open to public use. The portion of Bombing Range Road that is adjacent to NWSTF Boardman is owned by the Navy. The transmission line would parallel Bombing Range Road for about 12 miles outside the western boundary of the roadway right-of-way. It is the intention of the Applicant to repurpose the 90-foot-wide use area currently occupied by a 69-kV transmission line owned by BPA on the NWSTF Boardman. No long-term impacts on transportation on Bombing Range Road are anticipated from the replacement of the existing transmission line with the B2H Project. Transmission line construction, operation, and maintenance activities would occur outside of the roadway right-of-way and would be limited to areas approved by the Navy.

The Applicant's Proposed Action Alternative crosses the Union Pacific Railroad three times. It first crosses the rail where it exits the proposed Longhorn Substation, again north of Pilot Rock and lastly between Kamela and Hilgard (crossing Old Emigrant Hill Scenic Frontage Road). Selective Mitigation Measure 2 would be implemented to colocate the transmission line with existing crossings (roads or other utility lines) to avoid or minimize effects on railroad operations. Therefore, no long-term impacts are anticipated to operations and maintenance of railroad facilities.

Coordination of scheduling with the railway operator during construction (specifically stringing of conductors) could avoid curtailment of railway operations. In addition, induction in the rails, especially during a short-circuit event, can cause risk to persons along the rail and to signal systems. Mitigation of potential interruptions and safety concerns would be addressed through coordination with Union Pacific prior to construction.

Effects from Variation S1-B1 and Variation S1-B2 would be similar to those described in Effects Common to All Alternatives section. However, the S1-B1 Variation differs from the other alternative routes in Segment 1 in that it does not parallel the existing 230-kV line to avoid an additional crossing of I-84. The reduction of the additional crossing of I-84 could be beneficial to ODOT operations and maintenance activities.

The S1-B2 Variation differs from the other alternative routes in Segment 1 in that it is collocated with the existing 230-kV transmission line. Variation S1-B2 would provide benefits to roadway and railroad operations because it would reduce the number of new crossings of I-84 and the Union Pacific Railroad and, therefore, minimize safety risks and operational challenges associated with new crossings of these linear transportation facilities.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

Design Options 1, 2, and 3 would not affect the safety, use, operation or maintenance of existing transportation facilities. Impacts would be similar to those discussed for the Applicant's Proposed Action Alternative; however, these design options would affect a much smaller area.

Airports, Airstrips, and Heliport

There are no public or municipal airports, airstrips or heliports located within Segment 1 of the study area. However, the Applicant's Proposed Action Alternative and variations do utilize the 90 foot area currently occupied by the 69-kV transmission line owned by BPA. The NWSTF Boardman conducts regular air training activities in the study area. The FAA is charged with administrating all navigable airspace associated with NWSTF Boardman; refer to Map 3-2 in Section 3.2.6. Selective Mitigation Measure 7 would be applied for Military Training (described in Section 3.2.6) to allow for tower design modification to meet the requirements of NWSTF Boardman and the FAA.

The FAA requires utility line separation from runways and horizontal and conical zones for the safety of the planes and helicopters using the airports. To determine whether the B2H Project would be a hazard to these operations, the Applicant would conduct an obstruction evaluation/airport airspace analysis in

coordination with the FAA. This would occur before the ROD is issued. The obstruction evaluation/airport airspace analysis would determine whether a tower or span exceeds or is within any of the criteria identified by the FAA. To conduct an obstruction evaluation/airport airspace analysis, the towers and spans for the selected route are processed through the Notice Criteria Tool and the FAA would notify the Applicant of which towers and/or spans are required to file Form 7460-1, Notice of Proposed Construction or Alteration. The Applicant would file Form 7460-1 and the FAA would provide a determination of no hazard or hazard to airspace. If the tower were determined a hazard, steps would be taken to mitigate the hazard. The FAA will issue either a Determination of No Hazard to Air Navigation or a Notice of Presumed Hazard. The FAA also would outline any conditions (i.e., marking, lighting, etc.) required of the Applicant during construction in the determination letter.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

Design Options 1, 2, and 3 would not affect the safety, use, operation or maintenance of existing airports, airstrips or heliport facilities. Impacts would be similar to those discussed for the Applicant's Proposed Action Alternative; however, these design options would affect a much smaller area.

East of Bombing Range Road Alternative

Highways, Roads, Bridges, Railroads

Effects on highways, roads, bridges and railroads would be similar to those discussed for the Applicant's Proposed Action Alternative except that the proposed transmission line would be constructed outside the east boundary of Bombing Range Road. The transmission line would be constructed outside of the Bombing Range Road right-of-way and would not affect traffic along this roadway.

Airports, Airstrips, and Heliport

Effects on airports, airstrips, and heliports would be the same as those discussed for the Applicant's Proposed Action Alternative.

Applicant's Proposed Action – Southern Route Alternative

Highways, Roads, Bridges, Railroads

Effects on highways, roads, bridges and railroads would be similar to those discussed for the Applicant's Proposed Action Alternative along Bombing Range Road. The types of impacts on the transportation system along the Southern Route Alternative would be similar to those discussed for the Applicant's Proposed Alternative. However, the extent of impacts would be less because there are fewer highways, roads, bridges and railroad facilities located along Links 1-36, 1-38, 1-62,1-64, and 1-66.

Airports, Airstrips, and Heliport

Effects on airports, airstrips, and heliports would be the same as those discussed for the Applicant's Proposed Action Alternative.

Design Options 1, 2, and 3

Design Options 1, 2, and 3 would not affect the safety, use, operation or maintenance of existing airports, airstrips or heliport facilities. Impacts would be similar to those discussed for the Applicant's Proposed Action Alternative; however, these design options would affect a much smaller area.

West of Bombing Range Road – Southern Route Alternative

Highways, Roads, Bridges, Railroads

Effects on highways, roads, bridges and railroads would be the same as those discussed for the Applicant's Proposed Action Alternative along Bombing Range Road. The types of impacts on transportation system along the Southern Route Alternative portion would be similar to those discussed for the Applicant's Proposed Alternative. However, the extent of impacts would be less because there are fewer highways, roads, bridges and railroad facilities located along Links 1-36, 1-38, 1-62,1-64, and 1-66.

Airports, Airstrips, and Heliport

Effects on airports, airstrips, and heliports would be the same as those discussed for the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

Design Options 1, 2, and 3 would not affect the safety, use, operation or maintenance of existing airports, airstrips or heliport facilities. Impacts would be similar to those discussed for the Applicant's Proposed Action Alternative, however, these design options would affect a much smaller area.

Longhorn Alternative

Highways, Roads, Bridges, Railroads

Effects on highways, roads, bridges and railroads would be similar to those discussed for the Applicant's Proposed Action Alternative with the exception of Bombing Range Road. The Longhorn Alternative would not parallel Bombing Range Road. Instead, it will travel south avoiding agricultural land crossing county and other roads. Impacts associated with these types of transportation facility crossings are described in Effects Common to All Alternatives section above. The Longhorn Alternative joins the same alignment as the Applicant's Proposed Action Alternative at Link 1-15. From Link 1-15 onward, the effects would be the same as those discussed for the Applicant's Proposed Action Alternative.

Airports, Airstrips, and Heliport

Effects on airports, airstrips, and heliports would be the same as those discussed for the Applicant's Proposed Action Alternative.

Interstate 84 Alternative and Variations

Highways, Roads, Bridges, Railroads

Effects on highways, roads, bridges would be similar to those discussed under Effects Common to All Alternatives. Interstate I-84 Alternative parallels Interstate 84 for approximately 35 miles located between roadway right-of-way and the existing agricultural lands. The route crosses two highway interchanges along I-84 (south of Hermiston and again south of Stanfield). Coordination would be necessary between the Applicant and ODOT to ensure appropriate siting of towers, compliance with FHWA and ODOT safety requirements, and acquisition of encroachment permits, as needed.

The B2H Project would be constructed outside of the road right-of-way and would not have a long-term effect on traffic or congestion.

Short-term effects on highways, roads and bridges would be the same as those discussed under Effects Common to All Alternatives section.

Impacts on railroad facilities would be the same as those discussed for the Applicant's Proposed Alternative. However, after exiting the proposed Longhorn Substation, the Interstate 84 route parallels the railroad between the railroad right-of-way and the highway right-of-way. The Interstate 84 Alternative crosses the railroad once more near Echo, Oregon. Coordination of scheduling with the railway operator during construction (specifically stringing of conductors) could avoid curtailment of railway operations. In addition, induction in the rails, especially during a short-circuit event, can cause risk to persons along the rail and to signal systems. Selective Mitigation Measure 8 would be applied to address potential interruptions and safety concerns through coordination with Union Pacific prior to construction.

Effects on highways, roads, bridges and railroads for Variation S1-A1 and S1-A2 would be the same as those discussed for the Interstate 84 Alternative.

Airports, Airstrips, and Heliport

Effects on airports, airstrips, and heliports would be the same as those discussed for the Applicant's Proposed Action Alternative.

Interstate 84 – Southern Route Alternative

Highways, Roads, Bridges, Railroads

Effects on highways, roads, bridges and railroads would be the same as those discussed for the Interstate 84 Alternative until the route reaches Pilot Rock, Oregon. The Interstate 84 Southern Route Alternative deviates from just west of Pilot Rock and joins the Applicant's Proposed Action Alternative to Southern Route. From this point onward the effects on highways, roads, and bridges would be the same as those discussed for the Applicant's Proposed Action Alternative to Southern Route.

Airports, Airstrips, and Heliport

Effects on airports, airstrips, and heliports would be the same as those discussed for the Applicant's Proposed Action Alternative.

Conclusions

No high or moderate impacts on transportation are predicted in Segment 1. For any alternative route selected, coordination between the Applicant and ODOT and Union Pacific would be required to ensure compliance with safety requirements, and acquisition of encroachment permits, as needed. However, construction of the B2H Project along Bombing Range Road would require additional coordination with NWSTF Boardman and FAA.

SEGMENT 2—BLUE MOUNTAINS

Table 3-386 presents the residual impacts on all alternative routes and route variations in Segment 2.

Table 3-386. Transportation Inventory Data for Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)		
		Federal Highway	State Highway	County Road	Rail	Landing Strip	High	Moderate	Low
Applicant's Proposed Action	33.8	0.3	0.3	0.0	0.2	0.0	0.0	0.0	0.8
Variation S2-A1	*2.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-A2	*2.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-B1	*3.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-C2	*8.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-F1	*12.1*	*0.3*	*0.1*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.6*
Variation S2-F2	*12.2*	*0.1*	*0.1*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.4*
Glass Hill	33.7	0.3	0.3	0.0	0.2	0.0	0.0	0.0	0.8
Variation S2-D1	*4.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-D2	*4.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Mill Creek	34.0	0.6	0.2	0.0	0.2	0.0	0.0	0.0	1.0

Table Note: There are no airports within the 1 mile study corridor this table only reports on landing strips. Local and other roads are not analyzed through the resource inventory process because the initial and residual impacts are anticipated to be low.

Applicant's Proposed Action Alternative

Highways, Roads, Bridges, Railroads

Effects on the transportation system would be similar to those described in Effects Common to All Alternatives section. The Applicant's Proposed Action Alternative would result in a low level of impacts on highways, roads, bridges, and railroad facilities. Specifically, the Applicant's Proposed Action Alternative and Variation S2-F1, and Variation S2-F2 cross Interstate 84, State Highway 237 and the Union Pacific Railroad just south of Union, Oregon (Link 2-70 and 2-85). Selective Mitigation Measure 8

would be applied to ensure compliance with requirements set forward by ODOT, local transportation agencies and the Federal Railroad Administration (FRA) regarding construction activities and crossing of transportation facilities.

All other variations to the Applicant's Proposed Action Alternative would not cross any major transportation facilities. Potential impacts on unnamed private or local roads would similar to those described in Effects Common to All Alternatives section.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 2.

Glass Hill Alternative

Highways, Roads, Bridges, Railroads

The types of impacts associated for the Glass Hill Alternative would be similar to those identified for the Applicant's Proposed Action Alternative. However, the Glass Hill Alternative (Link 2-40) is located three miles west of Morgan Lake until it joins the same alignment as the Applicant's Proposed Action Alternative at Link 2-50, and continues through Segment 2. From Link 2-52 on, impacts would be the same as those discussed for the Applicant's Proposed Action Alternative.

Variation S2-D1 and Variation S2-D2 would not cross any major transportation facilities. Potential impacts on unnamed private or local roads would be the same as those described in Effects Common to All Alternatives section.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 2.

Mill Creek Alternative

Highways, Roads, Bridges, Railroads

Impacts would be similar to those discussed for the Applicant's Proposed Action Alternative. However, the Mill Creek Alternative crosses Interstate 84 three times south of La Grande. It also crosses State Highway 237 north of North Power, Oregon. Although the Mill Creek Alternative would result in more crossings of existing transportation facilities, impacts are anticipated to be low due to the fact that it is collocated with an existing 230-kV transmission line. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT, local transportation agencies and FRA regarding construction activities and crossing of transportation facilities.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 2.

Conclusions

No high or moderate impacts on transportation are predicted in Segment 2. For any alternative route selected, coordination between the Applicant, ODOT, and Union Pacific would be required to ensure compliance with safety requirements, and acquisition of encroachment permits, as needed. There is no discernable difference in impacts on transportation among the alternatives considered for Segment 2.

SEGMENT 3—BAKER VALLEY

Table 3-387 presents the residual impacts on all alternative routes and route variations in Segment 3.

Table 3-387. Transportation Inventory Data for Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)		
		Federal Highway	State Highway	County Road	Rail	Landing Strip	High	Moderate	Low
Applicant's Proposed Action	55.2	0.3	0.4	0.2	2.3	0.0	0.0	0.0	3.0
Variation S3-A1	*12.4*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*
Variation S3-A2	*12.2*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*
Variation S3-B1	*13.9*	*0.0*	*0.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*
Variation S3-B2	*14.4*	*0.0*	*0.3*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*
Variation S3-B3	*14.7*	*0.0*	*0.3*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*
Variation S3-B4	*14.3*	*0.0*	*0.3*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*
Variation S3-B5	*14.0*	*0.0*	*0.3*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*
Variation S3-C1	*21.1*	*0.3*	*0.0*	*0.0*	*2.3*	*0.0*	*0.0*	*0.0*	*2.4*
Variation S3-C2	*21.7*	*0.3*	*0.0*	*0.0*	*2.2*	*0.0*	*0.0*	*0.0*	*2.3*
Variation S3-C3	*21.1*	*0.7*	*0.0*	*0.0*	*2.3*	*0.0*	*0.0*	*0.0*	*2.6*
Variation S3-C4	*21.4*	*0.7*	*0.0*	*0.0*	*2.3*	*0.0*	*0.0*	*0.0*	*2.6*
Variation S3-C5	*21.0*	*0.3*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.3*
Variation S3-C6	*24.7*	*0.3*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.3*
Flagstaff A	55.3	0.3	0.4	0.2	2.3	0.0	0.0	0.0	0.3
Timber Canyon	70.3	0.3	0.4	0.0	1.9	0.0	0.0	0.0	2.4[1]
Flagstaff A – Burnt River Mountain	55.3	0.7	0.3	0.3	2.3	0.0	0.0	0.0	3.2
Flagstaff B	56.0	0.3	0.3	0.3	2.3	0.0	0.0	0.0	3.0
Flagstaff B – Burnt River West	55.7	0.3	0.3	0.3	0.2	0.0	0.0	0.0	0.9
Flagstaff B – Durkee	59.6	0.3	0.3	0.3	0.2	0.0	0.0	0.0	0.9

Table Note: [1]U.S. Forest Service development roads are not included in this count.

Applicant's Proposed Action Alternative

Highways, Roads, Bridges, Railroads

Effects on the transportation system would be similar to those described in Effects Common to All Alternatives section. The Applicant's Proposed Action Alternative would result in a low level of impacts

on highways, roads, bridges, and railroad facilities. Specifically, the Applicant's Proposed Action Alternative crosses Oregon State Route 203 and 86 east of Baker City, Oregon (MV-13). The route then continues to closely parallel the north side of Interstate 84 for approximately 28 miles. The alignment crosses Interstate 84 near the unincorporated town of Weatherby, Oregon and then parallels the south side of Interstate 84 for 4 miles to the end of Segment 3 (near Dixie, Oregon). The Applicant' Proposed Action crosses the Union Pacific Railroad twice just north of Durkee, Oregon and again south of Weatherby, Oregon. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT, local transportation agencies and FRA regarding construction activities and crossing of transportation facilities.

Variation S3-B1, Variation S3-B2, Variation S3-B3, Variation S3-B4, and Variation S3-B5 cross Oregon State Route 203 and 83. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT, local transportation agencies and FRA regarding construction activities and crossing of transportation facilities. The types of impacts would be similar those described in Effects Common to All Alternatives section.

Variation S3-C3, Variation S3-C4, Variation S3-C5, and Variation S3-C6 cross Interstate 84, Old U.S. 30 and the Union Pacific Railroad where these facilities intersect north of Durkee, Oregon. These variations also cross Burnt River Canyon Lane and other small unnamed roads in the area. The routes cross Interstate 84 again and the Union Pacific Rail Road from west to east at the unincorporated town of Weatherby, Oregon before it joins the Applicant's Proposed Action Alternative. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT, local transportation agencies and FRA regarding construction activities and crossing of transportation facilities. Variation S3-C3, Variation S3-C5, and Variation S3-C6 would require more coordination with transportation management agencies due to the increased number of transportation facility crossings.

The types of impacts from all other variations would be similar to those described in Effects Common to All Alternatives section.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 3.

Flagstaff A Alternative

Highways, Roads, Bridges, Railroads

Impacts on highways, roads, bridges and railroads from Flagstaff A Alternative would be similar to those discussed for the Applicant's Proposed Action Alternative. However, the Flagstaff A Alternative is located farther east (Links 3-31 to 3-47) and impacts would occur in a slightly different location.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 3.

Timber Canyon Alternative

Highways, Roads, Bridges, Railroads

The Timber Canyon Alternative would travel through the Wallowa-Whitman National Forest. GIS analysis for the study corridor identified approximately 18 national forest development roads that could potentially be crossed by the Timber Canyon Alternative. Crossings would be subject to final design and the terms and conditions of the USFS. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT, USFS, local transportation agencies and FRA regarding construction activities and crossing of transportation facilities.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 3.

Flagstaff A – Burnt River Mountain Alternative

Highways, Roads, Bridges, Railroads

Impacts on highways, roads, bridges and railroads from the Flagstaff A – Burnt River Mountain Alternative would be similar to those described for the Applicant's Proposed Action Alternative until Pleasant Valley, Or (Link 3-56). The Flagstaff A Alternative then crosses Interstate 84, Old U.S. 30 and the Union Pacific Railroad where these facilities intersect north of Durkee, Oregon. This route also crosses Burnt River Canyon Lane and then continues farther west to collocate with an existing 230-kV transmission line and does not cross another major transportation routes. The Flagstaff A Alternative route crosses Interstate 84 and the Union Pacific Rail Road fewer times than the Applicant's Proposed Action Alternative. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT, local transportation agencies and FRA regarding construction activities and crossing where the route does cross a transportation facility.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 3.

Flagstaff B Alternative

Highways, Roads, Bridges, Railroads

Impacts on highways, roads, bridges and railroads from the Flagstaff B Alternative would be similar to those described for the Applicant's Proposed Action Alternative. However, the Flagstaff B Alternative is located west (Links 3-37 to 3-47) of the Applicant's Proposed Action Alternative and therefore, impacts would occur in a slightly different location.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 3.

Flagstaff B – Burnt River West Alternative

Highways, Roads, Bridges, Railroads

Impacts on highways, roads, bridges and railroads from the Flagstaff B – Burnt River West Alternative would be the similar to those described for the Flagstaff A – Burnt River Mountain Alternative. The Flagstaff B- Burnt River Alternative is located very closely to Flagstaff A – Burnt River Mountain Alternative; however, it is located slightly farther east (Link 3-73).

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 3.

Flagstaff B– Durkee

Highways, Roads, Bridges, Railroads

Impacts on highways, roads, bridges and railroads from the Flagstaff B – Durkee Alternative would be the similar to those described for the Flagstaff A – Burnt River Mountain Alternative. The Flagstaff B – Durkee Alternative is longer and located farther west (Links 3-74 and 3-90). The Flagstaff B- Durkee alternative would require more coordination with transportation management agencies due to the increased length and subsequent number of small road crossings.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 3.

Conclusions

No high or moderate impacts on transportation are predicted in Segment 3. on transportation are predicted in Segment 1. For any alternative route selected, coordination between the Applicant, ODOT, and Union Pacific would be required to ensure compliance with safety requirements, and acquisition of encroachment permits, as needed. The alternative routes in Segment 3 are located in close proximity; therefore, there is no discernable difference in impacts on the transportation system. An exception would be the Timber Canyon Alternative, which crosses approximately 18 national forest development roads not crossed by any other alternative route in Segment 3.

SEGMENT 4—BROGAN

Table 3-388 presents the residual impacts on all alternative routes and route variations in Segment 4.

Table 3-388. Transportation Inventory Data for Segment 4—Brogan

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)		
		Federal Highway	State Highway	County Road	Rail	Landing Strip	High	Moderate	Low
Applicant's Proposed Action	40.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Variation S4-A1	*5.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S4-A2	*6.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S4-A3	*6.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Tub Mountain South	40.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Willow Creek	34.6	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1

Applicant's Proposed Action Alternative

Highways, Roads, Bridges, Railroads

The Applicant's Proposed Action Alternative would result in a low level of impacts on highways, roads and bridges. No railroad facilities are crossed. The Applicant's Proposed Action Alternative and Variation S4-A1 pass through a relatively undeveloped area and cross U.S. Highway 26 approximately 4 miles east of Brogan. The remainder of the Applicant's Proposed Action Alternative does not cross any major transportation facilities. Potential impacts on unnamed private or local roads would be similar to those described in Effects Common to All Alternatives section. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT and local transportation agencies regarding construction activities and crossing of transportation facilities.

Variation S4-A2 and Variation S4-A3 would be located slightly east of the Applicant's Proposed Action Alternative to allow for colocation with an existing 138-kV transmission line. These variations would not cross any major transportation facilities. Potential impacts on unnamed private or local roads would similar to those described in Effects Common to All Alternatives section.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports crossed by the Applicant's Proposed Action Alternative.

Tub Mountain South Alternative

Highways, Roads, Bridges, Railroads

The Tub Mountain South Alternative parallels Interstate 84 for approximately 15 miles then drops south through the developed area of Willow Creek. The Tub Mountain South Alternative crosses small local roads as well as U.S. Highway 26. Selective Mitigation Measure 8 would be applied to ensure

compliance with requirements set forward by ODOT and local transportation agencies regarding construction activities and crossing of transportation facilities.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports crossed by the Tub Mountain South Alternative.

Willow Creek Alternative

Highways, Roads, Bridges, Railroads

Impacts on highways, roads, bridges and railroads from Willow Creek Alternative would be similar to those described for the Applicant's Proposed Action Alternative. However, the Willow Creek Alternative crosses U.S. Highway 26 about 1.5 miles northwest of Jamieson. The Willow Creek Alternative crosses developed areas small local roads. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT and local transportation agencies regarding construction activities and crossing of transportation facilities.

Airports, Airstrips, and Heliport

The Willow Creek Alternative would result in a moderate level of impact on an existing airstrip. The Willow Creek Alternative crosses the Gum Creek airstrip and, if constructed, would interfere with use of the airstrip. It would be necessary for the Applicant to coordinate with the airstrip operator during final design to avoid any interference with airstrip operation. Selective Mitigation Measure 7 would be applied to address site-specific constraints to allow for continued use of this airstrip and compliance with Oregon Department of Aviation requirements. Modifications could include modification of tower height, modification of tower leg lengths or modification to tower placement to allow ongoing operation of this airstrip.

Conclusions

No high or moderate impacts on transportation in Segment 4. For any alternative route selected, coordination between the Applicant, ODOT, and Union Pacific would be required to ensure compliance with safety requirements, and acquisition of encroachment permits, as needed. There is no discernable difference in impacts on transportation among the alternatives considered for Segment 4, except for the Willow Creek Alternative. The Willow Creek Alternative would result in more transportation facility crossings because it crosses a populated area. In addition, Willow Creek Alternative crosses the existing Gum Creek airstrip.

SEGMENT 5—MALHEUR

Table 3-389 presents the residual impacts on all alternative routes and route variations in Segment 5.

Table 3-389. Transportation Inventory Data and Residual Impacts for Segment 5—Malheur

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)		
		Federal Highway	State Highway	County Road	Rail	Landing Strip	High	Moderate	Low
Applicant's Proposed Action	40.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Variation S5-A1	7.4	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S5-A2	7.4	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S5-B1	*2.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S5-B2	*2.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Malheur S	43.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Malheur A	43.1	0.1	09.0	0.0	0.0	0.0	0.0	0.0	0.1

Applicant's Proposed Action Alternative

Highways, Roads, Bridges, Railroads

The Applicant's Proposed Action Alternative, Malheur S Alternative, Malheur A Alternative and all variations would result in a low level of impacts on highways, roads and bridges. No railroad facilities are crossed. Potential impacts on unnamed private or local roads would similar to those described in Effects Common to All Alternatives section. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT and local transportation agencies regarding construction activities and crossing of transportation facilities.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 5.

Conclusions

No high or moderate impacts on transportation are predicted in Segment 5. For any alternative route selected, coordination between the Applicant, ODOT, and Union Pacific would be required to ensure compliance with safety requirements, and acquisition of encroachment permits, as needed. There is no discernable difference in impacts on transportation among the alternatives considered for Segment 5.

SEGMENT 6—TREASURE VALLEY

Table 3-390 presents the residual impacts on all alternative routes and route variations in Segment 6.

Table 3-390. Transportation Inventory Data and Residual Impacts for Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Resource Inventory (miles crossed)					Residual Impacts (miles)		
		Federal Highway	State Highway	County Road	Rail	Landing Strip	High	Moderate	Low
Applicant's Proposed Action	28.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Variation S6-A1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S6-A2	*8.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S6-B1	*14.4*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*
Variation S6-B2	*14.1*	*0.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*

Applicant's Proposed Action Alternative

Highways, Roads, Bridges, Railroads

The Applicant's Proposed Action Alternative and all variations would result in a low level of impacts on highways, roads and bridges. No railroad facilities are crossed. Potential impacts on unnamed private or local roads would be the same as those described in Effects Common to All Alternatives section. Selective Mitigation Measure 8 would be applied to ensure compliance with requirements set forward by ODOT, IDT, and local transportation agencies regarding construction activities and crossing of transportation facilities.

Airports, Airstrips, and Heliport

There are no airports, airstrips or heliports located within the study corridor for Segment 6.

Conclusions

No high or moderate impacts on transportation are predicted in Segment 6. For any alternative route selected, coordination between the Applicant, ODOT, and Union Pacific would be required to ensure compliance with safety requirements, and acquisition of encroachment permits, as needed. There is no discernable difference in impacts on transportation among the alternative routes considered for Segment 6.

3.2.10 LANDS WITH WILDERNESS CHARACTERISTICS

3.2.10.1 INTRODUCTION

This section discusses BLM-administered lands that have been documented to contain wilderness characteristics. In general, these areas have been identified as lands that are at least 5,000 contiguous acres, are generally natural in appearance, provide outstanding opportunities for either solitude or primitive and unconfined types of recreation, and may contain supplemental values (i.e., scientific, educational, scenic, or historical values).

3.2.10.2 REGULATORY FRAMEWORK

FEDERAL

Federal Land Policy and Management Act of 1976 (43 U.S.C. 1711-1712)

Pursuant to Section 201 of the FLPMA, the BLM is required to maintain, on a continuing basis, an inventory of all public lands and the lands' resources and other values. This inventory requirement includes maintaining information regarding wilderness characteristics. Section 201 also provides that the preparation and maintenance of the inventory will not change or prevent change of the management or use of the lands.

Section 202 of the FLPMA requires the BLM to rely on the resource inventories in the development and revision of land-use plans, including inventory information regarding wilderness characteristics. The wilderness resource, including lands with wilderness characteristics, is one of the resources that the BLM manages under the multiple-use and sustained-yield direction contained in Section 202 of the FLPMA.

Bureau of Land Management Manual 6310 – Conducting Wilderness Characteristics Inventory on Bureau of Land Management Lands (Public)

This manual states that for lands with wilderness characteristics, "This policy contains the BLM guidance and general procedure for conducting wilderness characteristics inventories under Section 201 of FLPMA and supersedes all previous guidance on this topic." Under this policy, the BLM will conduct inventories of public lands for the presence or absence of wilderness characteristics, by considering the "validity of proposed boundaries of the area(s), the existence of wilderness inventory roads and other boundary features, the size of the area(s), and the presence or absence of wilderness characteristics." Once potential lands with wilderness characteristics have been identified, a complete inventory is performed, where the BLM considers the size, naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation, as well as any supplemental values. If an inventory unit meets all of these criteria, the area is documented as containing wilderness characteristics (BLM 2012).

Only lands with wilderness characteristics units crossed by the B2H Project right-of-way are addressed in the analysis because BLM Manual 6310 directs that the effects of activities outside an area do not influence outstanding opportunities for solitude determinations unless they are pervasive and omnipresent (BLM 2012).

Bureau of Land Management Manual 6320 – Considering Lands With Wilderness Characteristics in the Bureau of Land Management Land Use Planning Process (Public)

This manual establishes BLM policy on considering lands with wilderness characteristics in land-use plans and land-use plan amendments and revisions in accordance with the FLPMA and other applicable authorities. By using the land-use planning process, the BLM can determine how to manage the lands with wilderness characteristics as part of the BLM's multiple-use mandate. As part of the land-use planning process, a suite of management actions with allowable uses and restrictions are considered to protect wilderness characteristics (i.e., right-of-way exclusion or avoidance area) (BLM 2012).

Bureau of Land Management Resource Management Plans

The potential effects of a proposed action on lands with wilderness characteristics and compliance with any management-level decision (established in BLM RMPs) for the units must be considered by the BLM when making project-level decisions.

In addition, for lands within the Vale District that are within the planning area for the SEORMP, a court-approved settlement agreement also sets out certain requirements that BLM must follow until BLM completes an RMP amendment for the SEORMP (Settlement Agreement Between ONDA, Committee for the High Desert, WWP, and BLM (June 7, 2010)). Until BLM complete the RMP amendment for the SEORMP, the settlement agreement precludes the BLM from approving any surface-disturbing activity on lands that the BLM has identified as having wilderness characteristics if the BLM finds that the project would either diminish the size of the inventory unit or cause the entire inventoried unit to no longer meet the criteria for wilderness character (ONDA v. Bureau of Land Management 2010).

3.2.10.3 Issues Identified for Analysis

In addition to the issues that must be considered as required by applicable laws or regulations, the potential for effects on lands with wilderness characteristics was identified as an issue for analysis during scoping.

3.2.10.4 Methods

The general study methods used to analyze the impacts of the B2H Project in this EIS are described in Section 3.1.3 and Section 2.5.1. This section discusses how the study methods are applied to assess the impacts of the B2H Project on lands with wilderness characteristics.

Inventory

The BLM completed inventory updates for the Malheur Field Office as part of the land-use planning process for amending its RMP (the SEORMP) to consider those units that have been documented to contain wilderness characteristics. In addition, updated inventories are available for the rest of the study corridor. No other lands containing wilderness characteristics are crossed by any of the alternative routes (including the Idaho portion). No additional citizens' inventories or new information have been

received during preparation of this EIS. Lands with wilderness characteristics units occurring within the 1-mile-wide study corridor (i.e., 0.5 mile on either side of the reference centerline for the alternatives and route variations) are discussed in this section. Lands with wilderness characteristics units only occur in the study corridor for the alternatives and route variations in Segment 5.

No wilderness areas or Wilderness Study Areas (WSAs) occur within the study corridor for the alternatives or route variations for any segment.

DATA SOURCES

The analysis in this section is based on the BLM inventory reports for each unit in the study corridor.

In February 2004, a citizen group provided the BLM Vale District with additional information in an inventory report containing maps, photos, and photo logs for 42 proposed inventory units of critical environmental concern covering more than 2.2 million acres of public land in the planning area (ONDA 2004a, 2004b, 2004c). The group later submitted supplemental sets of digital photos, photo logs, and GIS spatial data with additional or edited versions of their original submission.

From 2007 to 2012 the BLM Vale District conducted wilderness inventory updates for public lands outside of designated WSAs (approximately 1.3 million acres in the planning area), following the current inventory guidance (BLM 2007a, 2007b, 2007c, 2007d). Interdisciplinary teams reviewed the existing wilderness inventory information contained in the BLM's wilderness inventory files, previously published inventory findings (BLM 1980a, 1980b), and citizen-provided wilderness information (ONDA 2007a, 2007b, 2007c).

When conducting inventory updates, the BLM identified preliminary boundaries for wilderness characteristics inventory units and reviewed existing pertinent information within the unit to determine whether data updates or additional field inventory information was needed. Updates and inventories were completed prior to conducting an evaluation of a given unit. Inventory unit boundaries principally are formed by public land boundaries and roads. The interdisciplinary teams made final route and boundary determinations and, subsequently, evaluated wilderness characteristics in each unit. BLM staff compiled the new and existing photography, resource information, interdisciplinary team discussion records, and route information into individual unit records. With this information, the interdisciplinary teams then made draft wilderness characteristic determinations and provided these to BLM managers for final concurrence. The lands with wilderness characteristics inventories completed by the BLM comply with BLM Manual 6310. Final wilderness characteristics determinations have been made available to the public on the BLM Vale District website at http://www.blm.gov/or/districts/vale/plans/wce/malheur-index.php. In addition, hard copies of the final wilderness characteristics determinations are contained in the BLM Vale District files and have been made available to interested parties on request. Pursuant to 40 CFR Section 1502.21, the BLM hereby incorporates, by reference, its wilderness inventory update documentation into this analysis and summarizes below the two units that could be affected. Through the SEORMP plan amendment process, the BLM will determine whether to manage the units to administratively protect wilderness characteristics.

Analysis Area

The analysis area for lands with wilderness characteristics is a 1-mile-wide study corridor (i.e., 0.5 mile on either side of the reference centerline for the alternatives and route variations). In addition, environmental consequences for lands with wilderness characteristics located within 250 feet of centerline of the alternative routes are identified, where appropriate. This width represents the edge of the proposed transmission line right-of-way, which would become a new wilderness inventory boundary (as developed rights-of-way are treated similarly to roads). The study corridor also includes sites for substations, communication sites, multi-use areas, and fly yards.

Impact Assessment and Mitigation Planning

Criteria for Assessing Level of Impacts

Criteria for determining the level of impacts were not developed specifically for lands with wilderness characteristics to assess impacts. Rather, the impact criteria developed for vegetation and recreation were used to assess the level of impacts on wilderness characteristics (refer to Section 3.2.3 and Section 3.2.8).

Effects Analysis

A qualitative assessment of the potential effects on lands with wilderness characteristics was conducted for each unit crossed by the alternative routes and route variations. Also, if applicable, conformance with land-use planning objectives for the units as established in the relevant SEORMP was assessed. Refer to Section 3.2.6 for further discussion of the SEORMP.

Mitigation Planning and Effectiveness

The effectiveness of applying selective mitigation measures developed for vegetation and recreation resources would avoid, minimize, or reduce over time the surface disturbance associated with B2H Project construction, access, and facility placement, as well as ensure that the alignment would not further encroach onto the boundaries of lands with wilderness characteristics units. Relevant selective mitigation measures include Selective Mitigation Measure 5 (Minimize Vegetation Clearing for Operational Clearances), Selective Mitigation Measure 6 (Limit New or Improved Accessibility to Areas Previously Inaccessible), Selective Mitigation Measure 7 (Tower Design Modification), and Selective Mitigation Measure 8 (Span and/or Avoid Sensitive Features) (refer to Table 2-13). It should be noted that with regards to lands with wilderness characteristics Mitigation Measure 8 would be applied to avoid sensitive features rather than spanning. The effectiveness of applying these selective mitigation measures includes minimizing B2H Project effects on resources that contribute to the area's wilderness characteristics by consolidating and minimizing surface disturbances during B2H Project construction, access, and facility placement, as well as ensuring that the alignment would not further encroach into areas not currently affected by the B2H Project as disclosed in this EIS. Applying these selective mitigation measures to units that have been documented to contain wilderness characteristics would allow for relevant BLM field offices to use discretion at the local level to ensure retention of wilderness characteristics to the greatest practical extent.

The BLM may require compensatory mitigation to offset impacts on lands with wilderness characteristics where impacts cannot be effectively avoided, in accordance with the Department of the Interior's Secretarial Order 3330 and the BLM's Draft Regional Mitigation Manual (Draft Manual Mitigation Strategy 1794 "Regional Mitigation Manual" (BLM 2013a) and consistent with the CEQ's NEPA regulations, 40 CFR 1508.20). Secretarial Order 3330 provides a policy that directs the Department of the Interior to '"seek ways to offset or compensate for those impacts [that cannot be avoided or effectively minimized] to ensure the continued resilience and viability of our natural resources over time" (Secretary of the Interior 2013). BLM Draft Manual MS 1794 also reflects the BLM's policy (interim) commitment to "consider mitigation outside of the area of impact when it is not feasible or practical to mitigate impacts to an acceptable level in the same area as the use-authorization" (BLM 2013b).

Compensatory mitigation for impacts on lands with wilderness characteristics may include funding to maintain or enhance lands with wilderness characteristics through resource restoration and other related activities, funding of related interpretation and educational programs, or other appropriate projects at the discretion of the field manager.

Appendix C of this EIS contains a Mitigation Framework. The Mitigation Framework (1) establishes how avoidance and minimization have eliminated and/or reduced impacts; (2) identifies unavoidable remaining resource effects that meet criteria for warranting compensatory mitigation; (3) provides a framework for how the appropriate level and type of compensatory mitigation will be determined for those resource effects; and (4) identifies the types of compensatory mitigation measures or projects that could be applied in specific areas to offset the unavoidable remaining impacts.

Upon selection of the final route in the ROD and following final engineering and design, the compensatory mitigation plan will update, as needed, the direct and indirect impacts based on an engineered and designed alignment, and will identify a suite of site-specific compensatory mitigation options for selection and implementation under the review and guidance of the cooperating agencies. The final detailed compensatory mitigation plan must be reviewed by the cooperating agencies and a recommendation will be made to the Authorized Officer for approval prior to any issuance of Notices to Proceed.

3.2.10.5 Affected Environment

Segment 1—Morrow-Umatilla

There are no lands with wilderness characteristics units in the study corridor in Segment 1.

Segment 2—Blue Mountains

There are no lands with wilderness characteristics units in the study corridor in Segment 2.

Segment 3—Baker Valley

There are no lands with wilderness characteristics units in the study corridor in Segment 3.

SEGMENT 4—BROGAN

There are no lands with wilderness characteristics units in the study corridor in Segment 4.

SEGMENT 5—MALHEUR

Table 3-391 lists lands with wilderness characteristics units located in the 1-mile-wide study corridor for the alternatives and route variations in Segment 5 (refer to MV-20).

Table 3-391. Lands with Wilderness Characteristics Units within the Study Corridor for Segment 5—Malheur Area

Alternative Route	Lands with Wilderness Characteristics
Applicant's Proposed Action	Double Mountain
Variation S5-A1	*Double Mountain*
Variation S5-A2	*Double Mountain*[1]
Variation S5-B1	*None*
Variation S5-B2	*None*
Malheur S	Double Mountain Broken Rim Sourdough Mountain
Malheur A	Double Mountain Broken Rim Sourdough Mountain Board Corral Mountain Sand Hollow Burnt Mountain

Table Note: [1]The Double Mountain Unit is crossed by the centerline of Variation S5-A2.

Several lands with wilderness characteristics units are located in the study corridor for the alternatives and route variations in Segment 5. However, only the Double Mountain Unit is crossed by the reference centerline of a route variation analyzed in Segment 5 (refer to Table 3-392). Both Variation S5-A1 and Malheur S Alternative were developed to avoid lands with wilderness characteristics.

Table 3-392. Lands with Wilderness Characteristics Units Crossed by Alternative Route or Route Variation in Segment 5—Malheur

Alternative Route	Total Length (miles)	Resource Inventory (miles)	Miles of Unit Crossed by Alternative Route or Route Variation
Applicant's Proposed Action	40.4	40.4	0
Variation S5-A1	*7.4*	*7.4*	*0*
Variation S5-A2	*7.4*	*7.4*	*4.7*
Variation S5-B1	*2.5*	*2.5*	*0*
Variation S5-B2	*2.8*	*2.8*	*0*
Malheur S	43.5	43.5	0
Malheur A	43.1	43.1	0

Applicant's Proposed Action Alternative

Table 3-393 summarizes information on the units of inventoried wilderness characteristics located within the 1-mile-wide study corridor of the Applicant's Proposed Action Alternative.

Because lands within the Vale District are within the planning area for the SEORMP, the BLM is precluded from approving any surface-disturbing activity on lands that the BLM has identified as having wilderness characteristics if the BLM finds that the B2H Project would either diminish the size of the inventory unit or cause the entire inventoried unit to no longer meet the criteria for wilderness character (ONDA v. Bureau of Land Management 2010).

Table 3-393. Lands with Wilderness Characteristics Units in the Study Corridor for the Applicant's Proposed Action Alternative in Segment 5—Malheur

Unit Identification/Name	Approximate Unit Size	Meets Criteria for Lands with Wilderness Characteristics	Sufficient Size	Naturalness	Solitude	Primitive and Unconfined Recreation	Supplemental Values	Crossed by Alternative Route Centerline
Double Mountain	28,181	Yes	Yes	Yes	Yes	No	Yes	Yes, crossed by Variation S5-A2

Table Source: BLM 2009a

Double Mountain Unit

The Double Mountain Unit (OR-034-040) is approximately 28, 181 acres and is bounded by BLM roads on the south of the unit's northeast sector, and by private lands on its north boundary. The Double Mountain Unit is documented to contain wilderness characteristics and meets minimum size and naturalness criteria, as well as provides outstanding opportunities for solitude. Terrain of the unit consists of the north-south oriented watershed of Sagebrush Creek with drainages and moderate to steep rising (500 feet) terrain with a grouped complex of peaks in the unit's southwest portion. There also is a mesa in the unit's northwest portion. Elevation in the unit ranges from 2,420 to 3,900 feet and vegetation consists of predominately sagebrush community. Dispersed recreational opportunities in the unit are not outstanding in quality. Primary primitive recreation opportunities within the unit include hunting of common upland and big game, day hiking, horseback riding, and general sightseeing and photography. Three BLM special status plant species are known to occur within the unit: Cronquists' stickseed, Biddle's lupine, and Cusick's chaenactis.

Citizen Proposed Study Area Associated with the Double Mountain Unit

In February 2004, the Vale District received the ONDA's evaluation of wilderness characteristics for the 26,155-acre Sagebrush Gulch. Because the BLM documents human developments and man-made features within the unit, the BLM unit boundary features differ from the ONDA boundary features. The

BLM inventory also differs from the ONDA inventory regarding the opportunity for outstanding recreation activities and confirmed presence of certain wildlife species. The conclusion of the BLM's inventory and citizen proposal for naturalness of the unit was different because consideration of the 27 vehicle routes along the Owyhee River was not made possible because of the timing of the land transfer from Reclamation to the BLM. In addition, the ONDA stated that habitat may be present for sensitive species; however, some of these species were not considered sensitive by the ODFW, BLM, or USFWS. Inventory sheets documenting these findings are available on the BLM website: http://www.blm.gov/or/districts/vale/plans/files/DoubleMountain_OR-034-040_ALL.pdf.

Variations S5-A1 and S5-A2

The conditions of the existing environment are the same as those identified for the Applicant's Proposed Action Alternative.

Variations S5-B1 and S5-B2

There are no lands with wilderness characteristics within the 1-mile study corridor of Variations S5-B1 and Variation S5-B2.

Malheur S Alternative

Table 3-394 summarizes information on the units of inventoried wilderness characteristics located in the 1-mile-wide study corridor of the Malheur S Alternative.

Table 3-394. Lands with Wilderness Characteristics Units in the Study Corridor for the Malheur S Alternative in Segment 5—Malheur

Unit Identification/Name	Approximate Unit Size	Meets Criteria for Lands with Wilderness Characteristics	Sufficient Size	Naturalness	Solitude	Primitive and Unconfined Recreation	Supplemental Values	Crossed by Alternative Route Centerline
Broken Rim	26,179	Yes	Yes	Yes	Yes	No	Yes	No
Sourdough Mountain	15,867	Yes	Yes	Yes	Yes	No	Yes	No
Double Mountain	28,181	Yes	Yes	Yes	Yes	No	Yes	No

Table Source: BLM 2009a, 2009b, 2009c

Broken Rim Unit

Broken Rim Unit (OR-0340-027) is approximately 26,179 acres and is bounded by roads on all sides. The Broken Rim Unit was found to possess wilderness characteristics and meets minimum size and naturalness criteria, as well as provides outstanding opportunities for solitude. Recreation opportunities are not considered to be outstanding in quality. Recreation activities include hiking, horseback riding, photography, general sightseeing, and hunting of common game species (deer, chukar, and antelope). Terrain in the northern portion of the unit consists of rough, sharply eroded slopes and a central ridgeline. The central area of the unit comprises rolling lands surrounded by relatively flat area. The east boundary is at the bottom of the ridge in an area known as Sand Hollow. Elevations range

from 2,480 to 5,100 feet and vegetation consists of sagebrush and both native and non-native grasses. The Broken Rim Unit does contain five Greater Sage-Grouse leks and three sites of Biddle's lupine (a BLM special status plant species). Kane Springs harbors the Owyhee Hot Springs snail, a BLM special status animal species, with a strategic classification with the Interagency Special Status Sensitive Species Program.

Citizen Proposed Study Area Associated with Broken Rim Unit

In February 2004, the Vale District received from the ONDA an evaluation of wilderness characteristics for the 92,556-acre Freezeout Ridge (ONDA's name for this area associated with the Broken Rim Unit). Because the BLM documents human developments, man-made features, and motorized primitive trails within the unit, the BLM unit boundary features differ from the ONDA boundary features. The BLM inventory also differs from the ONDA evaluation regarding the opportunity for outstanding recreation activities and confirmed presence of certain wildlife species. Inventory sheets documenting these findings are available on the BLM website: http://www.blm.gov/or/districts/vale/plans/files/ BrokenRim_OR-034-027_ALL.pdf.

Sourdough Mountain Unit

The Sourdough Mountain Unit (OR-034-030) is approximately 15,867 acres and is bounded by the PP&L Electric 500-kV transmission line on the south, private land and a road on the east, private land and a road on the west, and private land and a road on the north. The Sourdough Mountain Unit meets minimum size and naturalness criteria, as well as provides outstanding opportunities for solitude. The dispersed recreational opportunities are not considered outstanding in quality. Terrain consists of broad, gradually sloped upper features of Sourdough Mountain and incised drainages. Elevations range from 4,747 to 3,220 feet along the unit's east and the prominent Negro Rock igneous spire is in the unit's northeast corner. Vegetation consists of typical native high desert shrub and both native and non-native grass species. Two separate small sites of Biddle's lupine, a BLM special status plant species, are located adjacent to two of the unit's boundary roads.

Citizen Proposed Study Area Associated with Sourdough Mountain Unit

In February 2004, the Vale District received from the ONDA an evaluation of wilderness characteristics for the 92,556-acre Freezeout Ridge Proposed inventory unit. Because the BLM documents human developments, man-made features, and motorized primitive trails within the unit, the BLM unit boundary features differ from the ONDA boundary features. The BLM inventory also differs from the ONDA inventory regarding the opportunity for outstanding recreation activities and confirmed presence of certain wildlife species. Inventory sheets documenting these findings are available on the BLM website: http://www.blm.gov/or/districts/vale/plans/files/SourdoughMtn_OR-034-030_ALL.pdf.

Double Mountain Unit

The affected environment for the Double Mountain Unit would be the same as the affected environment discussed for the Applicant's Proposed Action Alternative.

Malheur A Alternative

Table 3-395 summarizes information on the units of inventoried wilderness characteristics within the 1-mile-wide study corridor of the Malheur A Alternative.

Table 3-395. Lands with Wilderness Characteristics Units in the Study Corridor for the Malheur A Alternative in Segment 5—Malheur

Unit Identification/Name	Approximate Unit Size	Meets Criteria for Lands with Wilderness Characteristics	Sufficient Size	Naturalness	Solitude	Primitive and Unconfined Recreation	Supplemental Values	Crossed by Alternative Route Centerline
Board Corral Mountain	15,463	Yes	Yes	Yes	Yes	No	Yes	No
Sand Hollow	12,272	Yes	Yes	Yes	Yes	No	Yes	No
Burnt Mountain	8,105	Yes	Yes	Yes	Yes	No	Yes	No
Broken Rim	26,179	Yes	Yes	Yes	Yes	No	Yes	No
Sourdough Mountain	15,867	Yes	Yes	Yes	Yes	No	Yes	No
Double Mountain	28,181	Yes	Yes	Yes	Yes	No	Yes	Yes

Table Source: BLM 2008, 2009a, 2009b, 2009c, 2009d, 2010

Board Corral Mountain

Board Corral Mountain (OR-034-016) is approximately 15,463 acres and is bounded by roads on all sides. In addition, portions of the unit's west and southwest boundary road share a common road boundary with the Wild Horse Basin inventory unit (OR-3-77B) and Honeycombs inventory unit (OR-3-77A), respectively. The Board Corral Mountain Unit meets minimum size and naturalness criteria, as well as provides outstanding opportunities for solitude. However, opportunities for primitive or unconfined are not considered to be outstanding. The unit's terrain consists of a series of draws and drainages stemming from the north-south Owyhee Ridge and rolling terrain with rock outcrops. Elevations range from 2,680 to 4,975 feet and dominant vegetation consists of sagebrush community with native and non-native rangeland grasses. Recreation activities that occur within the area include hiking, horseback riding, wildlife viewing, photography, and general sightseeing.

Citizen Proposed Study Area Associated with Board Corral Mountain

In February 2004, the Vale District received from ONDA its evaluation of wilderness characteristics for the 15,503-acre Buck Gulch Proposed inventory unit. The boundaries of the proposed inventory unit are the same as the boundaries of the ONDA's proposal. The BLM inventory differs from the ONDA evaluation in that BLM finds that the unit does not provide outstanding primitive and unconfined recreation opportunities. The BLM and the ONDA both find that supplemental values are present, although the BLM does acknowledge that habitat requirements may exist for Woodhouse's Toad, the Desert Horned Lizard, the Ferruginous Hawk, the Pygmy Rabbit, and the White-tailed Antelope

Squirrel. However, neither the ONDA nor any other entity has provided the BLM official documentation confirming the presence of these species within this inventory unit.

Sand Hollow

The Sand Hollow Unit (OR-034-023) is approximately 12,272 acres and is bounded by a road, the wide PP&L 500-kV transmission line corridor right-of-way, and a private land parcel in its easternmost location. The Sand Hollow Unit meets minimum size and naturalness criteria, as well as provides outstanding opportunities for solitude. However, opportunities for primitive and unconfined recreation are not considered to be outstanding. Terrain consists of the upper slopes of Grassy Mountain, a complex of steep, rugged draws and drainages with elevations ranging from 2,460 to 4,520 feet. Vegetation consists predominately of sagebrush and various native and non-native grass species. Recreation activities that occur within the unit include hunting of common upland and big game species (deer, chukar, and antelope), general hiking, horseback riding and photography. The unit does have supplemental values related to paleontological resources, presence of Cusick's pincushion (BLM sensitive species), and presence of bighorn sheep habitat.

Citizen Proposed Study Area Associated with Sand Hollow

In February 2004, the Vale District received from ONDA its evaluation of wilderness characteristics for the 13,665-acre Grassy Mountain proposed inventory unit. The BLM inventory does not find opportunity for primitive and unconfined recreation. The BLM inventory differs in findings related to Greater Sage-Grouse leks within this unit. In addition, the BLM acknowledges that habitat requirements may exist for the Ground Snake, Ferruginous Hawk, Pygmy Rabbit, and White-tailed Antelope Squirrel; however, neither the ONDA nor any other entity has provided the BLM with official documentation confirming the presence of these species within this inventory unit. The BLM has documented the occurrence of the Mojave Black-collard Lizard and Desert Horned Lizard within this proposed unit. Inventory sheets documenting these findings are available on the BLM website at: http://www.blm.gov/or/districts/vale/plans/files/SandHollow_OR-034-023_ALL.pdf.

Burnt Mountain

The Burnt Mountain Unit (OR-034-024) is approximately 8,105 acres and is bounded by a road and Oxbow Basin and shares an administrative boundary with lands managed by Reclamation at Owyhee Reservoir. The Burnt Mountain Unit meets minimum size and naturalness criteria, as well as provides outstanding opportunities for solitude. However, opportunities for primitive and unconfined recreation are not considered to be outstanding. Supplemental values for the unit include habitat range for California bighorn sheep. Terrain consists of ridges, hills, eroded rims, and plateaus. Elevations within the unit range from 3,014 to 3,816 feet and vegetation consists of desert sage dominated by cheat grass and bunchgrasses. Recreation activities that occur within this unit include hiking, rock collecting, hunting, photography, and sightseeing.

Double Mountain Unit

The affected environment for the Double Mountain Unit would be the same as the affected environment discussed for the Applicant's Proposed Action Alternative.

SEGMENT 6—TREASURE VALLEY

There are no lands with wilderness characteristics units within the study corridor in Segment 6.

3.2.10.6 ENVIRONMENTAL CONSEQUENCES (RESULTS OF ANALYSIS)

TYPES OF POTENTIAL EFFECTS

In general, when evaluating actions with potential effects on lands with wilderness characteristics, the BLM must consider the quality of wilderness characteristics and determine whether the action would result in:

- Reduction of naturalness to the point that all or a portion of an area found to possess wilderness characteristics would no longer meet this criterion
- Reduction of identified opportunities for solitude or primitive and unconfined recreation to the point that they would no longer be outstanding
- Degradation of unique, supplemental, or other features identified for the unit

Potential effects on wilderness characteristics could result from construction, operation, and maintenance activities. More specifically, the introduction of roads or developed rights-of-way could subdivide units with wilderness characteristics and either (1) reduce size and naturalness or diminish opportunity for solitude or primitive and unconfined recreation or (2) bisect, and thereby remove, a portion of the continuous unit so that the unit no longer meets the 5,000-acre size requirement.

Short-term direct effects on apparent naturalness, solitude, and primitive and unconfined recreation of the area would be related to the sights and sounds of construction activities, including noise, dust, and vehicle emissions from construction activities and equipment, as well as potential access restrictions to the unit during construction for public health and safety.

Long-term direct impacts on apparent naturalness could be associated with presence of access roads and tower structures, right-of-way clearing and maintenance, and overstory vegetation removal that could diminish the recreational and wilderness experience for visitors. Outstanding opportunities for solitude or primitive and unconfined recreation also would be diminished.

Indirect effects on wilderness characteristics could occur if temporary or permanent access routes resulted in increased access to lands with wilderness characteristics, resulting in public uses that are incompatible with the wilderness resources (e.g., diminishment of opportunities for solitude).

In addition, potential impacts on lands with wilderness characteristics units that have not yet been through the BLM planning process could include future limitations of management related to wilderness characteristics. For lands within the Vale District (Malheur Field Office), any B2H Project activities that would affect lands with wilderness characteristics could not be implemented before the SEORMP amendment is finalized and a decision regarding wilderness characteristics of the subject lands is made.

NO ACTION ALTERNATIVE

Under the No Action Alternative, a right-of-way grant for the B2H Project would not be granted. The B2H Project would not be developed and the environment would remain as it presently exists.

Effects Common to All Action Alternatives

None of the alternatives or route variations in Segments 1, 2, 3, 4, and 6 cross lands with wilderness characteristics units that have been designated as a natural area or prescribed for protection of wilderness characteristics under a BLM land-use plan. Therefore, no effects on the management and protection prescriptions for the protection of wilderness characteristics are anticipated from implementation of the B2H Project. As previously mentioned, any proposed action on lands with wilderness characteristics within the Vale District could not be implemented before the SEORMP amendment is finalized and a decision regarding wilderness characteristics of the subject lands is made.

Potential impacts on lands with wilderness characteristics from geotechnical investigation activities would be largely avoided through implementation of design features of the B2H Project for environmental protection (refer to Table 2-7) and selective mitigation measures. Due to the intermittent nature and short duration of geotechnical investigation activities, impacts on lands with wilderness characteristics would be minor to negligible. Geotechnical testing would be coordinated with the local BLM field office. Overland travel in lands with wilderness characteristics would be avoided unless approved by the local BLM field office. Segment 1—Morrow-Umatilla

There are no lands with wilderness characteristic units within Segment 1. Thus, no identifiable impacts on lands with wilderness characteristics would result from implementation of the B2H Project in Segment 1.

Segment 2—Blue Mountains

There are no lands with wilderness characteristics units within Segment 2. Thus, no identifiable impacts on lands with wilderness characteristics would result from implementation of the B2H Project in Segment 2.

Segment 3—Baker Valley

There are no lands with wilderness characteristics units within Segment 3. Thus, no identifiable impacts on lands with wilderness characteristics would result from implementation of the B2H Project in Segment 3.

Segment 4—Brogan Area

There are no lands with wilderness characteristics units within Segment 4. Thus, no identifiable impacts on lands with wilderness characteristics would result from implementation of the B2H Project in Segment 4.

Segment 5—Malheur Area

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative does not cross any lands with wilderness characteristics units. Therefore, no identifiable impacts are anticipated on lands with wilderness characteristics from the Applicant's Proposed Action Alternative.

Variation S5-A1

Variation S5-A1 was developed to avoid lands with wilderness characteristics (Link 5-15). The 250 foot right-of-way for Variation S5-A1 does not cross any lands with wilderness characteristics units. Therefore, no identifiable impacts on lands with wilderness characteristics would be anticipated if this route were selected.

Variation S5-A2

Variation S5-A2 crosses the northern portion of the Double Mountain Unit about at Link 5-20 about 2 miles south of the northernmost boundary (parcel of private land). Variation S5-A2 would create a new unit boundary and remove 1,890 acres from the contiguous unit. The removal of this portion of the unit would not reduce the area below the 5,000-acre size requirement for consideration for wilderness designation. The remaining Double Mountain Unit would be 26,290. Within the Double Mountain units, all roads and impacts would be required to stay in the B2H Project right-of-way boundary. The B2H Project right-of-way would become the new wilderness characteristics unit boundary on the north end of the unit.

B2H Project short-term effects on opportunities for solitude and unconfined/primitive recreation of the area along the north edge of the unit would be visual effects, noise, dust, and vehicle emissions from construction activities and equipment, as well as potential restrictions on access to inventoried areas. Long-term effects from the B2H Project would be the influences of the B2H Project infrastructure, including the vertical prominence of transmission structures.

As mentioned previously, the BLM Vale District is under a court-approved settlement agreement that sets out certain requirements that the BLM must follow until the BLM completes an RMP amendment for the SEORMP. In particular, the settlement agreement precludes the BLM from approving any surface-disturbing activity on lands that the BLM has identified as having wilderness characteristics if the BLM finds that a project or action would either diminish the size of the inventory unit or cause the entire inventory unit to no longer meet the criteria for wilderness character. Therefore, Variation S5-A2 could not be implemented per the 2010 court-approved settlement agreement.

Variation S5-B1

Variation S5-B1 would have no identifiable impacts on lands with wilderness characteristics.

Variation S5-B2

Variation S5-B2 would have no identifiable impacts on lands with wilderness characteristics.

Malheur S Alternative

The Malheur S Alternative was developed to avoid lands with wilderness characteristics (Link 5-25). The 250 foot right-of-way for the Malheur S Alternative does not cross any lands with wilderness characteristics units. Therefore, no identifiable impacts are anticipated to lands with wilderness characteristics from the Malheur S Alternative.

Malheur A Alternative

The Malheur A Alternative does not cross any lands with wilderness characteristics units. Therefore, no identifiable impacts are anticipated on lands with wilderness characteristics from the Malheur A Alternative.

Conclusions

Variation S5-A2 is the only route that crosses lands with wilderness characteristics and would therefore be precluded from implementation as per the 2010 court-approved settlement agreement. There is no discernable difference of impacts among other alternatives within Segment 5. Variation S5-A2 would create a new unit boundary and remove 1,890 acres from the contiguous unit. However, the removal of this portion of the unit would not reduce the area below the 5,000-acre size requirement for consideration for wilderness designation.

SEGMENT 6—TREASURE VALLEY

There are no lands with wilderness characteristics units within Segment 6. Therefore, no identifiable impacts on lands with wilderness characteristics would result from implementation of the B2H Project in Segment 6.

This page intentionally left blank.

3.2.11 POTENTIAL CONGRESSIONAL DESIGNATIONS

3.2.11.1 INTRODUCTION

Congressional designations are lands managed by federal agencies to protect values and land uses unique to an area. These areas require more intensive management emphasis than is applied to surrounding public lands because these areas are designated by an act of Congress. Congressionally designated areas relevant to the B2H Project area include NHTs. Trails under study or recommended as suitable for congressional designation are also potential congressional designations and are discussed in the National Historic Trails section (Section 3.2.15)."

A potential congressional designation discussed in this section, the Owyhee River Below the Dam suitable Wild and Scenic River (WSR) segment, is a river segment suitable for inclusion in the WSR system.

There are no wilderness areas, WSAs, or inventoried roadless areas in the study corridor for any of the alternative routes and route variations.

3.2.11.2 REGULATORY FRAMEWORK

FEDERAL

Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act of 1968 (Public Law 90-542, as amended) established a method for providing federal protection for certain of our country's remaining free-flowing rivers, preserving them and their immediate environments for the use and enjoyment of present and future generations. Rivers are included in the National Wild and Scenic Rivers System (National System) so that they may benefit from the protective management and control of development for which the act provides. To be eligible for inclusion in the National System, a river must be free-flowing and the stream corridor must contain at least one outstandingly remarkable resource value, such as its scenic, wildlife, or recreational value.

Section 5(d)(1) of the Wild and Scenic Rivers Act requires federal agencies to consider and evaluate rivers under their management for potential designation as WSRs, while preparing their broader land-use plans. This evaluation is a three-step process: eligibility, classification, and suitability. Based on eligible rivers' level of development and level of accessibility, the rivers are tentatively classified as wild, scenic, or recreational rivers. Once deemed an eligible river, the river is then evaluated further for suitability. Suitability analyses review the jurisdictional and management constraints, among other issues, within a land-use planning process. Rivers designated into the National System are administered so as to protect and enhances the river's values and preserve the river and its immediate environment for the use and enjoyment of present and future generations (BLM 2012a).

The Omnibus Act of 2009

The Omnibus Public Land Management Act of 2009 (16 U.S.C. 7202) (the Omnibus Act of 2009 or Act) established the National Landscape Conservation System (NLCS), which was established administratively by Secretarial Order in 2000 "in order to conserve, protect, and restore nationally

significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations." The NLCS includes these areas administered by the BLM; national monuments, National Conservation Areas, wilderness areas, WSAs, WSRs, national scenic and historic trails, cooperative management and protection areas, outstanding natural areas, and forest reserves.

Bureau of Land Management Manual 6100 – National Landscape Conservation System Management Manual (Public)

This manual provides the general policy for BLM personnel on how to manage public lands in the NLCS. In general, the BLM's objective is to protect, conserve, and restore the values the NLCS units were designated for; manage valid existing rights and compatible uses in NLCS units; use science, local knowledge, partnerships, and volunteers to effectively manage NLCS units; provide recreational, educational, interpretation, and visitor services; and use and showcase innovative techniques to manage compatible multiple uses in NLCS units (BLM 2012b).

Bureau of Land Management Manual 6400 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management (Public)

This manual provides the "policy and program direction for the identification, evaluation, and management of eligible and suitable WSRs and the management of designated components of the National Wild and Scenic Rivers System (National System). In addition, this policy allows for BLM to authorize a project within an eligible or suitable river corridor, if the project does not alter the free flowing condition and if the outstandingly remarkable values remain protected. The policies and program guidance for WSR in this manual are consistent with NLCS's mission to conserve, protect, and restore nationally significant landscapes recognized for outstanding cultural, ecological, and scientific values". "BLM's policy goal for suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and outstandingly remarkable values until Congress designates the river or releases it for other purposes. To that end, BLM has broad discretionary authority, on a case-by-case basis through project-level decision-making and the NEPA process, not to impact river values or make decisions that might lead to a determination of nonsuitability" (BLM 2012a).

3.2.11.3 Issues Identified for Analysis

The issues identified during scoping and review of the Draft EIS by both the public and agencies in relation to congressional designations and potential congressional designations (i.e., wilderness areas, WSAs, and potential WSR segments) include the following:

- What would be the effects on the wilderness character of wilderness areas and WSAs?
- What effects will the B2H Project have on suitable WSRs?

3.2.11.4 METHODS

The general study methods used to analyze the impacts of the B2H Project in this EIS are described in Sections 3.1.3 and 2.5.1. This section discusses how the study methods are applied to assess the impacts of the B2H Project on potential congressional designations.

DATA SOURCES

The analysis in this section is based on the BLM assessment report (BLM 1998) for the suitable WSR segment in the study corridor.

ANALYSIS AREA

The analysis area for identifying potential congressional designations is a 1-mile-wide study corridor (i.e., 0.5 mile on either side of the reference centerline for the alternatives and route variations.) The study corridor also includes sites for substations, communication sites, multi-use areas, and fly yards.

IMPACT ASSESSMENT AND MITIGATION PLANNING

Criteria for Assessing Level of Impacts

Criteria for determining the level of impacts were not developed specifically for suitable WSR segments to assess impacts. Rather, the impact criteria developed for biological resources (including vegetation resources, wildlife and fish, geologic resources, scenic, and recreation resources) were used to assess the level of impacts on the potential classification and outstandingly remarkable values of the suitable WSR segment (refer to Sections 3.2.3, 3.2.4, 3.2.5, 3.2.8, and 3.2.12). The effects from the B2H Project to the scenic outstandingly remarkable value are discussed below in Sections 3.2.11.5 and 3.2.11.6.

Effects Analysis

The effects analysis for the suitable WSR segments varies from the analysis of other resources within this EIS because the high, moderate, and low criteria were not used to assess level of impacts. Instead, the number of miles that the alternative routes and route variations cross a suitable WSR segment is presented, followed by a qualitative discussion of how this crossing may affect the management prescriptions and the values of the segment. The analysis also discloses potential impacts on an agency's ability to manage the suitable WSR segment according to the agency's current respective management plans. For specific information regarding the impacts on resources located within a suitable WSR segment crossed by an alternative route or route variation, refer to the applicable resource section (e.g., biological resources, recreation, etc.).

Mitigation Planning and Effectiveness

In addition to the design features of the B2H Project for environmental protection that are part of the B2H Project description (Table 2-7), selective mitigation measures were developed to minimize adverse impacts on potential congressional designations (Table 2-13). Selective mitigation measures were applied to avoid or minimize effects on resources being protected by the potential congressional

designation (e.g., biological resources, recreation, etc.) instead of by the potential congressional designation boundary.

The BLM would require compensatory mitigation to offset impacts on the outstandingly remarkable values and tentative classification of the Owyhee River Below the Dam suitable WSR segment where impacts cannot be avoided effectively, in accordance with the Department of the Interior's Secretarial Order 3330 and the BLM's Draft Regional Mitigation Manual (Draft Manual Section 1794 "Regional Mitigation Manual" [BLM 2014] and consistent with the CEQ's NEPA regulations, 40 CFR 1508.20). Secretarial Order 3330 provides a policy that directs the Department of the Interior to "seek ways to offset or compensate for those impacts [that cannot be avoided or effectively minimized] to ensure the continued resilience and viability of our natural resources over time." BLM Draft Manual Section 1794 also reflects the BLM's policy (interim) commitment to "consider mitigation outside of the area of impact when it is not feasible or practical to mitigate impacts to an acceptable level in the same area as the use-authorization" (BLM 2014).

Appendix C of this EIS contains a Mitigation Framework. The Mitigation Framework (1) establishes how avoidance and minimization have eliminated and/or reduced impacts; (2) identifies unavoidable remaining resource effects that meet criteria for warranting compensatory mitigation; (3) provides a framework for how the appropriate level and type of compensatory mitigation will be determined for those resource effects; and (4) identifies the types of compensatory mitigation measures or projects that could be applied in specific areas to offset the unavoidable remaining impacts.

Upon selection of the final route in the ROD and following final engineering and design, the compensatory mitigation plan will update, as needed, the direct and indirect impacts based on an engineered and designed alignment, and will identify a suite of site-specific compensatory mitigation options for selection and implementation under the review and guidance of the cooperating agencies. The final detailed compensatory mitigation plan must be reviewed by the cooperating agencies and a recommendation will be made to the Authorized Officer for approval prior to any issuance of Notices to Proceed.

Additional Analysis

No additional analysis was completed for this resource.

3.2.11.5 Affected Environment

Segment 1—Morrow-Umatilla

There are no potential congressional designations in the study corridor for Segment 1.

Segment 2—Blue Mountains

There are no potential congressional designations in the study corridor for Segment 2.

Segment 3—Baker Valley

There are no potential congressional designations in the study corridor for Segment 3.

SEGMENT 4—BROGAN AREA

There are no potential congressional designations in the study corridor for Segment 4.

SEGMENT 5—MALHEUR AREA

Table 3-396 and MV-21 present the resource inventory of potential congressional designations in the study corridor for the alternatives and route variations in Segment 5.

Table 3-396. Alternative Owyhee River Below the Dam Suitable Wild and Scenic River Segment in Segment 5—Malheur Area

Alternative Route	Total Length (miles)	Potential Congressional Designations (miles)[1]
Applicant's Proposed Action	40.4	0.9
Variation S5-A1	*7.4*	*0.0*
Variation S5-A2	*7.4*	*0.0*
Variation S5-B1	*2.5*	*0.9*
Variation S5-B2	*2.8*	*0.0*
Malheur S	43.5	1.1
Malheur A	43.1	1.1

Table Note: [1]The Potential Congressional Designations crossed by the reference centerline or right-of-way, or both.

Applicant's Proposed Action Alternative

The Applicant's Proposed Action Alternative crosses the Owyhee River Below the Dam suitable WSR segment in the BLM Malheur field office for less than 1 mile (refer Table 3-396). This river is 13.5 miles long (4.3 miles are managed by Reclamation) and has the proposed classification of recreational with outstanding remarkable recreation, scenic, geologic, fish, wildlife, and botanic values. The Owyhee River Below the Dam SRMA (refer to Section 3.2.8,) and Owyhee River Below the Dam ACEC (refer to Section 3.2.6) also are managed in this same segment of the Owyhee River. This area receives the highest recreational use in the BLM Malheur resource planning area (BLM 2002).

Based on the Eligibility Assessment for River Segments Identified for Possible Inclusion as Components of the National Wild and Scenic Rivers System, the following is a summary of the outstandingly remarkable values (ORVs) for the suitable WSR:

- Recreation: "All BLM administered public land within the visual corridor of the inventory river are part of the BLM designated Lower Owyhee River Watchable Wildlife Area. The area is noted for its diversity in bird life, with opportunities, also, to enjoy wildlife viewing of various mammals and some reptiles." There is an interpretative site, recreation site, and campgrounds. The river corridor also offers opportunities for upland bird and big game (deer) hunting, seasonal fishing, and dispersed recreation activities (e.g., camping, hiking, and general sightseeing).
- Scenic: Described as "deep and largely restricted canyon corridor with a highly diverse landscape, high vertical to near vertical walls and extensive rimrock, massive rock outcrops from very steep and highly colorful side slopes, rock windows and arched of significant size, and the confluences of several side canyons, each of highly diverse landscape character. Regarding

natural features, there exists a visual continuity with the designated wild river segment, broken only by the 53-mile long reservoir created by the Owyhee River dam."

- Geologic: Areas with the best opportunities in southeast Oregon to study geologic evolution of a major canyon, including volcanism, sedimentation, chemical alteration, tectonics (i.e., folding and faulting), and subsequent erosion, combined to create this deep, steep-walled, winding canyon.
- Fish: The river has a catch and release fishery for trophy brown trout (which is an exotic species) because the river provides good habitat.
- Wildlife: Several wildlife species use the river corridor because of the diverse habitats. Wildlife species that use the corridor include mule deer; chukar; California quail; various waterfowl; owls, prairie falcons, golden eagles, and other raptors; neotropical migratory birds; coyote; and beaver and other small mammals. Migratory bird counts also occur in the Watchable Wildlife area.
- Botanic: Extensive populations of Mulford's milk-vetch (a federal Category 1 species) and Bigelow's four-o'clock (a BLM listed sensitive species) exist in the area.

The river segment is readily accessible by a two-lane county road that parallels portions of the Owyhee River, has some recreational development along the shoreline, and has an impoundment or diversion where the Applicant's Proposed Action Alternative crosses the river. There are two boat put-ins located in the vicinity of the Applicant's Proposed Action Alternative: one approximately 0.5 mile to the north and another approximately 0.4 mile to the south. In the SEORMP (BLM 2002), this area is considered an avoidance area for utility rights-of-way. New rights-of-way may be granted if there is minimal conflict with the identified resource values and impacts can be mitigated. The Applicant's Proposed Action Alternative is in the corridor except where there is a land jurisdiction change that is on either side of the river. The Applicant's Proposed Action Alternative then would be located outside of the BLM utility corridor.

Variations S5-A1 and S5-A2

These route variations avoid the Owyhee River Below the Dam suitable WSR segment.

Variation S5-B1

This route variation crosses the Owyhee River Below the Dam suitable WSR segment. The conditions of the existing environment are the same as the conditions for the Applicant's Proposed Action Alternative.

Variation S5-B2

This route variation avoids the Owyhee River Below the Dam suitable WSR segment, with the reference centerline passing just north of the suitable segment. However, the right-of-way for the variation would just cross into the suitable WSR for approximately 80 feet (refer to MV-21).

Malheur S Alternative

The Malheur S Alternative crosses the Owyhee River Below the Dam suitable WSR segment farther south than the Applicant's Proposed Action Alternative and north of the Lake Owyhee Reservoir for 1.1 miles. Similar to the Applicant's Proposed Action Alternative, the alignment follows the existing county road and development along the southern side of the Owyhee River. However, the Malheur S Alternative is not located in the designated BLM utility corridor.

Malheur A Alternative

Similar to the Malheur S Alternative, the Malheur A Alternative crosses the Owyhee River Below the Dam suitable WSR segment farther south than the Applicant's Proposed Action Alternative and north of the Lake Owyhee Reservoir for 1.1 miles. The Malheur A Alternative follows an existing county road on the east side of the Owyhee River, and there is development north of where this alternative route crosses. This alternative uses a BLM utility corridor and a West-Wide Energy Corridor (in different areas) that are designated for all utility types. The route is located adjacent to an existing 500-kV transmission line in the West-Wide Energy Corridor.

Segment 6—Treasure Valley

There are no potential congressional designations in the study corridor for Segment 6.

3.2.11.6 Environmental Consequences (Results of Analysis)

Types of Potential Effects

The construction, operation, and maintenance of the B2H Project could result in both direct and indirect effects on potential congressional designations. Potential direct effects associated with construction, operation, and maintenance activities could include the following:

- Construction activities could conflict with management prescriptions of a potential congressionally designated area (short-term effect)
- Presence of the transmission and ancillary facility could conflict with management prescriptions for a potential congressional designation (short-term effect)
- Free-flowing condition of the suitable WSR segment could be altered by the construction or presence of the B2H Project (short- and long-term effect)
- The ORVs identified for the suitable WSR segment could be affected (long-term effect)
- Vegetation management of the transmission line corridor could conflict with the management prescriptions for the potential congressional designation (short- and long-term effect)

Indirect effects could include restricted access to a potential congressionally designated area as a result of construction activities (short-term).

No Action Alternative

Under the No Action Alternative, a right-of-way grant for the B2H Project would not be granted. The B2H Project would not be developed and the environment would remain as it presently exists.

Effects Common to All Alternatives

Potential impacts on lands with congressional designations from geotechnical investigation activities would be largely avoided through implementation of design features of the B2H Project for environmental protection (refer to Table 2-7) and selective mitigation measures. Due to the intermittent nature and short duration of geotechnical investigation activities, impacts on lands with congressional designations would be minor to negligible. Geotechnical testing would be coordinated with the local BLM field office. Overland travel in lands with wilderness characteristics would be avoided unless approved by the local BLM field office.

Segment 1—Morrow-Umatilla

There are no lands with congressional designations crossed by the Applicant's Proposed Action Alternative and other alternatives and route variations. Thus, no effects on potential congressional designations would result from implementation of the B2H Project in Segment 1.

Segment 2—Blue Mountains

There are no lands with congressional designations crossed by the Applicant's Proposed Action Alternative and other alternatives and route variations. Thus, no effects on potential congressional designations would result from implementation of the B2H Project in Segment 2.

Segment 3—Baker Valley

There are no lands with congressional designations crossed by the Applicant's Proposed Action Alternative and other alternatives and route variations. Thus, no effects on potential congressional designations would result from implementation of the B2H Project in Segment 3.

Segment 4—Brogan Area

There are no lands with congressional designations crossed by the Applicant's Proposed Action Alternative and other alternatives and route variations. Thus, no effects on potential congressional designations would result from implementation of the B2H Project in Segment 4.

Segment 5 - Malheur Area

Table 3-397 presents the residual impacts on all alternative routes and route variations in Segment 5.

Table 3-397. Alternative Route Comparison for Segment 5—Malheur Area

Alternative Route	Total Length (miles)	Miles of Resource Crossed by Alternative Route
Applicant's Proposed Action	*40.4*	*0.9*
Variation S5-A1	*7.4*	*0.0*
Variation S5-A2	*7.4*	*0.0*
Variation S5-B1	*2.5*	*0.9*
Variation S5-B2	*2.8*	*0.0*
Malheur S	43.5	1.1
Malheur A	43.1	1.1

Applicant's Proposed Action Alternative

Management direction in the SEORMP (BLM 2002) provides interim protection of ORVs of rivers found suitable for inclusion in the National WSR System until Congress acts. The Applicant's Proposed Action Alternative crosses the Owyhee River Below the Dam suitable WSR segment (Link 5-55) for 0.9 mile adjacent to, but outside of, a utility corridor designated in the SEORMP. Owyhee River Below the Dam suitable WSR segment is an avoidance area for utility rights-of-way. Therefore, the Applicant's Proposed Action Alternative would be consistent with the management identified in the SEORMP if there is minimal conflict with the identified resource values and impacts can be mitigated.

Short-term effects from implementation of the B2H Project would include increased noise and dust and increased activity along both sides of the river, which would temporarily disturb recreation users and possibly affect recreational access to the river during the construction phase.

No long-term effects on access to and availability of recreational opportunities (i.e., fishing and canoeing) would be expected.

The Applicant's Proposed Action Alternative would affect the view and experience of recreation users along the river and within the area with recreation designation. The construction of the B2H Project south of the BLM RMP utility corridor, near the mouth of the canyon, would dominate views in the enclosed landscape setting associated with the Owyhee River through the introduction of skylined transmission line structures from an inferior viewing position. An existing siphon has modified the existing setting, located 0.25 mile west of where the B2H Project crosses the river, but due to the scale of the proposed transmission line structures, impacts on the recreation experience (from altered scenic conditions) would occur at the eastern edge of the suitable river segment. As recreation users approach the crossing of the Owyhee River, views of skylined structures, construction access routes, and vegetation clearing would become visible and increasingly dominate the river's scenic setting. For a discussion of BLM visual resource management (VRM) objectives associated with this area, refer to Section 3.2.12.

Placement of any B2H Project components across the Owyhee River suitable segment would be micro-sited prior to construction in coordination with the BLM to minimize surface or visual disturbances from towers or other facilities and to minimize impacts on recreation and the visual environment (refer to Section 3.2.12). Other selective mitigation measures that would be applied include minimizing ground disturbance associated with construction and maximizing the span length between transmission line structures at the river crossing to reduce their dominance within Owyhee River's viewshed to the extent that is technically feasible.

The B2H Project would not alter the river's free-flowing condition. Effects on the ORVs described for geologic resources (refer to Section 3.2.1), fish resources (refer to Section 3.2.5), wildlife resources (refer to Section 3.2.4), and vegetation (refer to Section 3.2.3) would be minimal and mitigatable or would not be anticipated.

Variation S5-A1

This route variation does not cross the Owyhee River Below the Dam suitable WSR segment. No effects on potential congressional designations would occur.

Variation S5-A2

This route variation does not cross the Owyhee River Below the Dam suitable WSR segment. No effects on potential congressional designations would occur.

Variation S5-B1

Variation S5-B1 crosses the Below the Dam suitable WSR segment (Link 5-55). The effects would be the same as the effects described for the Applicant's Proposed Action Alternative.

Variation S5-B2

The reference centerline for Variation S5-B2 does not cross the Owyhee River Below the Dam suitable WSR segment, but the right-of-way associated with construction and maintenance of the route variation does for about 80 feet. Short-term effects from implementation of the B2H Project would include increased noise and dust and increased activity along both sides of the river, which would temporarily disturb recreation users and possibly affect recreational access to the river during the construction phase. No long-term effects on access to and availability of recreational opportunities (i.e., fishing and canoeing) would be expected.

In addition to the effects described above, the Variation S5-B2 would affect the view and experience of recreation users along the river and within the area with scenic ORV designation. The construction of the B2H Project in the BLM RMP utility corridor (at the mouth of the canyon outside of the eligible WSR segment) would locally dominate views at the mouth of the canyon. However, views would be screened by topography for most of the eligible WSR segment. Due to the siting of this route variation east of the steep terrain along the Owyhee River, the transmission line structures would be less visible and not dominate views up the canyon. Continuing down river, views are mostly screened by the steep canyon walls. For a discussion of BLM VRM objectives associated with this area, refer to Section 3.2.12.

Placement of any B2H Project components across the Owyhee River would be micro-sited prior to construction in coordination with the BLM to minimize surface or visual disturbances from towers or other facilities and to minimize impacts on the visual environment (refer to Section 3.2.12). Other selective mitigation measures that would be applied include minimizing ground disturbance associated with construction and maximizing the span length between transmission line structures at the river crossing to reduce their dominance within Owyhee River's viewshed to the extent that is technically feasible.

Malheur S Alternative

The Malheur S Alternative crosses the suitable WSR for 1.1 miles, farther south of the Applicant's Proposed Action Alternative and north of the Lake Owyhee Reservoir (Link 5-30). The Malheur S Alternative does not cross the suitable WSR within a BLM utility corridor and instead is located in a utility avoidance area, per the SEORMP (BLM 2002). Short-term effects from the alternative route

crossing the suitable WSR could include increased noise and dust during construction and maintenance activities and increased activity along both sides of the river, which would temporarily disturb recreation users and possibly affect recreational access to the river during the construction phase. No long-term effects on access to and availability of recreational opportunities (i.e., fishing and canoeing) would be expected. Similar to the Applicant's Proposed Action Alternative, the Malheur S Alternative would affect the view and experience of recreation users along the river within the area with scenic ORV designation but not hinder recreational opportunities (i.e., rafting or canoeing). As the river turns to the east, views would become increasingly dominated by the Malheur S Alternative through the presence of skylined structures, construction access routes, and vegetation clearing. For a discussion of BLM VRM objectives associated with this area, refer to Section 3.2.12.

Placement of any B2H Project components across the Owyhee River suitable segment would be micro-sited prior to construction in coordination with the BLM to minimize surface or visual disturbances from towers or other facilities and to minimize effects on the visual environment (refer to Section 3.2.12). Other selective mitigation measures that would be applied include minimizing ground disturbance associated with construction and maximizing the span length between transmission line structures at the river crossing to reduce their dominance within Owyhee River's viewshed to the extent that is technically feasible.

The B2H Project would not alter the river's free-flowing condition. Effects on the ORVs described for geologic resources (Section 3.2.1), fish resources (Section 3.2.5), wildlife resources (Section 3.2.4), and vegetation (Section 3.2.3) would be minimal and mitigatable or would not be anticipated.

Malheur A Alternative

The short- and long-term effects of the Malheur A Alternative would be similar to the effects of the Malheur S Alternative. The Malheur A Alternative crosses the suitable WSR farther south than the Applicant's Proposed Action Alternative and north of the Lake Owyhee Reservoir for 1.1 miles (Link 5-35). Unlike the Malheur S Alternative, the Malheur A Alternative would be located within an SEORMP BLM utility corridor and the West-Wide Energy Corridor, with a portion of the alternative adjacent to an existing 500-kV transmission line. Effects of the Malheur A Alternative on the ORVs would be the similar to the effects of the Malheur S Alternative. No long-term effects on access to and availability of recreational opportunities (i.e., fishing and canoeing) would be expected.

The Malheur A Alternative would affect the view and experience of recreation users along the river and the scenic ORV designation. The construction of the Malheur A Alternative south of the BLM RMP-designated utility corridor and West-Wide Energy Corridor (2 miles downriver of the Owyhee River dam) would dominate views in the enclosed landscape setting associated with the Owyhee River through the introduction of skylined transmission line structures from an inferior viewing position. An existing 500-kV transmission line crosses the river within the designated utility corridors; however, the Malheur A Alternative was sited further to the south to avoid crossing an existing agricultural facility. The Malheur A Alternative would be visible from the Owyhee River dam crossing the Owyhee River. The existing 500-kV transmission line and the Malheur A Alternative would become screened by terrain

diminishing their influence on views for recreation users and the scenic ORV designation. For a discussion of BLM VRM objectives associated with this area, refer to Section 3.2.12.

Placement of any B2H Project components across the Owyhee River suitable segment would be micro-sited prior to construction in coordination with the BLM to minimize surface or visual disturbances from towers or other facilities and to minimize impacts on the visual environment (refer to Section 3.2.12). Other selective mitigation measures that would be applied include minimizing ground disturbance associated with construction and maximizing the span length between transmission line structures at the river crossing to reduce their dominance within Owyhee River's viewshed to the extent that is technically feasible.

Conclusions

All alternative routes analyzed in Segment 5 cross the Owyhee River suitable segment; however, the reference centerline for Variation S5-B2 avoids the Owyhee River suitable segment. A portion of the right-of-way would overlay the boundary of the suitable segment.

Overall, Variation S5-B2 would have the lowest impact on the ORVs for the Owyhee River suitable segment, because of its location at the downstream terminus of the Owyhee River suitable segment where the Owyhee River enters agricultural lands. The Applicant's Proposed Action Alternative is located further within, but still near the downstream terminus of the Owyhee River suitable segment, in an area with increasing road density and other existing developments. The Malheur A Alternative would result in relatively higher impacts on viewers and recreation than the Applicant's Proposed Action Alternative and Variation S5-B2, but the intensity of these impacts would be partially reduced by the context of an existing transmission line and the visibility of the Owyhee River Dam. The Malheur S Alternative would result in the highest impacts on ORVs, particularly scenic and recreational ORVs, because of its location away from other existing infrastructure and development, and its location along a relatively straight river segment with high visibility to recreational viewers.

SEGMENT 6—TREASURE VALLEY

No effects on the potential congressional designations would result from implementation of the B2H Project in Segment 6.

3.2.12 VISUAL RESOURCES

3.2.12.1 INTRODUCTION

The term "visual resources" refers to the composite of basic terrain, geologic and hydrologic features, vegetative patterns, and built features that influence the visual appeal of a landscape. The concept of visual resources also refers to existing viewsheds from sensitive viewing locations or platforms, and includes differing terminology based on the land management agency that the B2H Project would affect. This section of the EIS identifies and describes the existing conditions associated with visual resources located within the B2H Project study corridor and assesses the potential effects or impacts on these resources based on the construction, operation, and maintenance of the B2H Project.

3.2.12.2 REGULATORY FRAMEWORK

The CEQ regulations for implementing NEPA identify aesthetic effects as a type of impact to be addressed in a review under NEPA and state that EISs should include discussion of the design of the built environment (40 CFR 1502.16, 1508.8). The regulations also require discussion of possible conflicts of a proposed action with the objectives of federal, regional, state, local, and tribal land-use plans and policies; federal land-use plans, in particular, typically include guidance for management of visual resources. The CEQ regulations do not include more specific direction about aesthetic impact issues to be considered or the means to evaluate aesthetic impacts.

Federal regulations for right-of-way grants under the FLPMA (43 CFR 2800) focus on administrative and procedural aspects of the grants. The BLM must further require compliance with the terms and conditions of the grant to control or prevent damage to "(i) Scenic, aesthetic . . . values…," per 43 CFR 28 2805.12(i)(3)(i). Regulations pertaining to special-use authorizations on USFS lands primarily address administrative and procedural aspects of the permit process, although guidance on permit terms and conditions includes the requirement that such authorizations must minimize damage to scenic and aesthetic values (36 CFR 251.56). BLM and USFS consideration of visual resource issues associated with special-use authorizations generally is based on the visual resource provisions of standard BLM and USFS policies and procedures for land-use planning and NEPA compliance.

The BLM and the USFS have developed formal systems to inventory and manage visual resources on the lands under their jurisdiction at a planning level scale. These systems also provide the framework to assess visual change in the landscape, and to demonstrate compliance with applicable visual agency management objectives. In contrast, formal directions for managing visual resources on other federally managed lands, as well as private, state, and municipal lands found within the visual resources study corridor have not been established. Visual Resource Management (VRM) approaches for the respective jurisdictions are discussed below.

FEDERAL LANDS

Federal lands within the study corridor primarily include lands managed by the BLM and the USFS, with some acreage under the jurisdiction of the DoD, Reclamation, the USFWS, and BPA. Both the BLM and

USFS provide specific direction regarding management of visual resources for the lands that they manage. This management direction is summarized below. While the DoD, Reclamation, the USFWS, and BPA do not provide specific VRM direction, a brief summary of each also is provided.

Bureau of Land Management

The BLM uses the VRM System to classify and manage visual resources on lands under its jurisdiction. The VRM System involves inventorying scenic values and establishing management objectives for those values through the resource management planning process, and then evaluating proposed activities to determine whether they conform to the management objectives (BLM 1984). The BLM's VRM System incorporates scenic quality, public sensitivity, and distance zones to identify visual resource inventory (VRI) classes. These classes represent the relative value of the existing visual landscape, as well as the visual resource baseline from which to measure impacts that the B2H Project may have on these values. In its planning process, the BLM weighs visual and competing resource values and designates the VRM Classes, with associated management class objectives for a given area's visual setting. The assignment of one of four VRM Classes (Table 3-398) becomes an important component of the BLM's RMP for the area.

The scenic quality ratings for the study area are provided on MV-22, viewers are illustrated on MV-23, and VRM Classes are depicted on MV-24. Delineations of the segments, alignments, and alternative routes are provided on Map 2-6 in Chapter 2.

Table 3-398. Bureau of Land Management Visual Resource Management Class Objectives

Visual Resource Management Class	Management Objective
I	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
II	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
III	The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	The objective of this class is to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Table Source: BLM 1986a

The analysis phase of the VRM process involves assessing and disclosing the potential visual impacts from proposed activities (as required by NEPA) and then determining whether such impacts will meet the management objectives established for the area (plan conformance). To analyze and mitigate

potential visual impacts associated with proposed activities, the BLM uses guidelines described in BLM Handbook H-8431-1, Visual Resource Contrast Rating (BLM 1986a). In this process, the degrees of contrast that viewers would see from selected KOPs (Sensitive Viewing Platforms), or places of scenic importance or places where users tend to congregate, are categorized in a range that includes “none,” “weak,” “moderate,” or “strong” contrast—where “strong” indicates that a proposed activity will create contrast that demands attention, will not be overlooked, and is dominant in the landscape. Factors considered when applying the contrast criteria include distance, angle of observation, length of time the project activities are in view, relative size or scale, season of use, light conditions, recovery time, spatial relationships, atmospheric conditions, and motion.

The study corridor overlaps with the geographic boundaries of the BLM Spokane, Prineville, Vale, and Boise Districts. The review of area-specific BLM planning direction for visual resources applies to the Spokane District, the John Day Basin in the Prineville District, the BLM Baker and Malheur Field Offices in the Vale District, and the Owyhee and Cascade Field Offices in the Boise District. The following BLM RMPs have been reviewed for VRM direction on the B2H Project:

- Spokane RMP/ROD (BLM 1987a)
- John Day Basin Proposed RMP and Final EIS (BLM 2012)
- Baker RMP (BLM 1989)
- Southeastern Oregon RMP, includes the Malheur Field Office (BLM 2002)
- Owyhee RMP (BLM 1999)
- Cascade RMP (BLM 1987b)

Management direction for visual resources that is documented within the BLM plans that are applicable to the study corridor is summarized below.

Spokane District

The BLM issued the current Spokane District RMP in 1985 and adopted that plan through a ROD issued in 1987. With respect to visual resources, the RMP indicates that visual resources would continue to be evaluated as a part of activity and project planning. The document does not discuss specific areas with high scenic values and does not indicate where VRM Classes have been assigned to lands within the district (BLM 1985). Similarly, the ROD indicates that recreational activities and visual resources will be evaluated as part of specific activity plans and will be evaluated in relation to land-use allocations made in the RMP and does not indicate where VRM Classes have been designated (BLM 1987a). VRM Class designations within the Spokane District are Not applicable to this Project, because the Project does not cross lands within the Spokane District.

Prineville District, John Day Basin

The final John Day Basin RMP/ROD was published in 2015, and encompasses more than 5 million acres. This plan provides updated management direction to resolve land-use issues or conflicts, including a goal to protect the quality of scenic values. Although the Prineville District does fall within the visual analysis area, the B2H Project does not cross any VRM Classes in this district.

Vale District, Baker Field Office

BLM-administered lands in the Baker Field Office of the Vale District include portions of Umatilla, Union, and Baker counties. The BLM Vale District issued the current RMP for the Baker Field Office in 1989. The RMP provides direction for a wide range of resource topics, including visual resources (BLM 1989). In general, the RMP guidance for visual resources is to emphasize management of visual resources in selected areas of high visitor use or high visual quality, or both. The Grande Ronde and Powder rivers were determined to be suitable through the Omnibus Oregon Wild and Scenic Rivers Act of 1988 and were designated by Congress as part of the Wild and Scenic River System in the late 1980s. River management plans were later developed for each river in 1993 and 1994. The river management plans appended the 1989 Baker RMP, and both include mention of general protection of high scenic values along the rivers. In addition, the RMP states that activities that will result in significant long-term adverse effects will not be permitted in areas of high scenic quality, such as the Burnt River, Powder River, or Snake River canyons (BLM 1989). Activities in other areas of high visual quality might be permitted if the activities do not attract attention or leave long-term visual changes on the land. The RMP assigns nearly 152,000 acres of the Baker Field Office (35 percent of the total acreage) to VRM Class II, in which management activities can be seen but cannot attract attention of a casual observer from any travel route. No areas within the Baker Field Office of the study corridor were designated as VRM Class I. The RMP assigned approximately 17 percent of the total acreage within the Baker Field Office to be managed as VRM Class III and the majority of the field office (48 percent) to be managed as VRM Class IV.

Vale District, Malheur Field Office

BLM-administered lands in Malheur County are administered by the Vale District of the BLM. The Malheur Field Office cover lands in Malheur County. The Malheur Field Office is located in northern Malheur County (lands north of Jordan Valley, Oregon) as well as south of Jordan Valley, Oregon. The BLM Vale District issued the Southeastern Oregon RMP and Final EIS in 2001 to provide management direction for the Malheur and Jordan Field Offices of the Vale District. The B2H Project area includes a considerable portion of the Malheur Field Office.

The Southeastern Oregon RMP (BLM 2001) identifies nine planning issues to be addressed in the planning process, summarizes existing conditions within the planning area, discusses management direction for the respective resources within the plan alternatives that are under consideration, and assesses the resource impacts that would result from the respective alternatives. Areas with special management direction for resource protection purposes are to be managed as VRM Class I or II. Overall, approximately 309,796 acres in the Malheur Field Office (15 percent of the total acreage) are to be managed as VRM Class I and 144,403 acres (7 percent of the total acreage) are to be managed as VRM Class II. The remainder of the field office is to be managed as VRM Class III (199,078 acres) and Class IV (1,365,457 acres) (BLM 2001).

Boise District, Owyhee Field Office

BLM-administered lands in Owyhee County, Idaho, are located at the southeastern end of the B2H Project area, within the Owyhee Field Office of the Boise District. The Owyhee RMP (BLM 1999)

includes separate sections addressing objectives, management actions, and allocations for a range of resources and management considerations. Approximately 71,332 acres (6 percent of the total acreage) are to be managed as VRM Class I, and 242,150 acres (18 percent) are to be managed as VRM Class II. The RMP also allocates 123,000 acres to VRM Class II-IMP; these are WSAs considered to be nonsuitable for wilderness designation that will be managed as VRM Class II unless or until released from wilderness consideration by Congress, in which case they would be managed as VRM Class IV. The majority of the Owyhee Field Office, 738,228 acres (56 percent), is managed as Class IV areas, and the remaining 144,785 acres (11 percent) is managed as Class III.

Boise District, Cascade Field Office

The study corridor includes a relatively small amount of BLM-administered lands located in Idaho along the Snake River. These lands currently are managed by the Four Rivers Field Office of the Boise District. The current RMP applicable to these lands is the RMP for the Cascade Field Office, which the BLM issued in 1987. The BLM initiated development of a new Four Rivers RMP in 2008, and that planning process is still underway.

The Cascade RMP (BLM 1987b) states that objectives for VRM are to protect the scenic values of the public lands and to manage specific lands within the field office under VRM Classes II (81,000 acres), III (383,466 acres), and IV (23,000 acres); no lands are allocated to VRM Class I. The Class II designation applies to a continuous band of lands along the eastern side of Brownlee and Oxbow reservoirs. This classification corresponds to an area designated elsewhere in the plan as the Oxbow-Brownlee SRMA.

U.S. Forest Service

The study corridor overlaps with the geographic boundaries of the Wallowa-Whitman and Umatilla National Forests; however, only the Wallowa-Whitman Forest would be directly crossed by the B2H Project. Although no direct physical impacts would occur within the Umatilla National Forest, the scenic quality of the lands within the Forest could potentially be affected by distant views of the B2H Project, and are therefore included in the analysis from a NEPA analysis perspective only.

The USFS originally implemented the Visual Management System (VMS) in 1974 to inventory, evaluate, and manage lands for visual resource values, as described in Chapter 1 of the National Forest Landscape Management handbook (USFS 1974). In 1995, the VRM guidelines and monitoring techniques evolved into the Scenery Management System (SMS), as described in *Landscape Aesthetics: A Handbook for Scenic Management* (USFS 1995). However, all USFS lands within the study corridor are currently using the VMS.

The VMS combines landscape variety (variety classes), viewer sensitivity, and distance zones to develop visual quality objectives (VQOs). VQOs are assigned to the landscape to describe the degree of acceptable alteration of the natural landscape (Table 3-399). Each VQO indicates this acceptable degree of landscape change by classifying lands into one of five categories: Preservation, Retention, Partial Retention, Modification, or Maximum Modification. Preservation allows for ecological changes only, while Maximum Modification allows for landscape changes that may dominate the natural

landscape character. The VQOs within the study area are illustrated on the Visual Resources: Federal Agency Visual Management Objectives map (MV-24).

Table 3-399. U.S. Forest Service Visual Resource Objectives (Visual Management System)

Objective	Visual Quality Objectives
Preservation	Landscape alterations generally are not allowed in this visual quality objective. The landscape is allowed to evolve naturally.
Retention	This visual quality objective provides for landscape alterations that are not visually evident. Under the VQO of Retention alterations may only repeat form, line, color, and texture that frequently are found in the characteristic landscape. Changes in their qualities of size, amount, intensity, direction, pattern, etc., should not be evident.
Partial Retention	Landscape alterations remain visually subordinate to the characteristic landscape when managed according to the partial retention visual quality objective. Alterations may repeat form, line, color, or texture common to the characteristic landscape, but changes in their qualities of size, amount, intensity, direction, pattern, etc. remain visually subordinate to the characteristic landscape.
Modification	Landscape alterations may visually dominate the original characteristic landscape. However, alterations of vegetative and landform alteration must borrow from naturally established form, line, color, or texture so completely and at such a scale that the alteration's visual characteristics are those of natural occurrences within the surrounding area or character type.
Maximum Modification	Landscape alterations may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background. Alterations to vegetation and landforms may dominate the characteristic landscape. However, when viewed as background, the visual characteristics must be those of natural occurrences within the surrounding area or character type. When viewed as foreground or middleground, they may not appear to completely borrow from naturally established form, line, color, or texture.

Table Source: USFS 1995

Wallowa-Whitman National Forest Land and Resource Management Plan

Regarding visual resources, the Wallowa-Whitman National Forest LRMP (USFS 1990a) indicates that "Management of the Forest's visual resources is emphasized within the viewsheds of federal and state highways and major Forest roads. The visible land areas adjacent to selected travel routes are managed for a variety of VQOs including Retention, Partial Retention and Modification." The plan establishes a goal for landscape management to "manage all National Forest lands to obtain the highest possible visual quality, commensurate with other appropriate public uses, costs and benefits."

The VQOs prescribed within the Wallowa-Whitman National Forest are defined by and apply only to lands within the denoted management areas. Each management area has a specific resource emphasis, as well as specific management objective guidelines, to provide protection for the resource. The B2H Project traverses several locations that have overlapping management areas. The LRMP states that within the selected acreages where management areas overlap, the VQOs that provide the highest level of visual quality protection take precedence. For 12 of the 17 management areas, the landscape management prescription is to manage according to forest-wide standards and guidelines. The landscape management prescriptions for the other 5 management areas reference VQOs, as applicable to specific areas. The management areas that would be crossed by the B2H Project include Management Area 1, Management Area 1W, Management Area 3, and Management Area 17. The

portions of these management areas that are crossed by the B2H Project include VQOs of Retention, Partial Retention, Modification, and Maximum Modification.

Umatilla National Forest Land and Resource Management Plan

The Umatilla National Forest LRMP (USFS 1990b) documents forest management direction and addresses management of visual resources as a subset of recreation. Of the 25 management areas within this LRMP, Management Area A3 Viewshed 1 and Management Area A4 Viewshed 2 address the "seen area" from specific viewing platforms where forest visitors have a major concern for the scenic quality of the landscape. Management Area A3 Viewshed 1 identifies 13 viewsheds from primary travel routes, use areas, or waterbodies where forest visitors are expected to have major concern for naturally appearing landscape. These viewsheds have been assigned VQOs of Retention and Partial Retention for the foreground and middleground distance-zone areas, respectively. Management Area A4 Viewshed 2 identifies 17 viewsheds from viewing platforms where forest visitors would have major concern for naturally appearing to slightly altered landscape. Areas within MA A4 Viewshed 2 have been assigned partial retention and modification VQOs for the foreground and middleground distance-zone areas, respectively.

The B2H Project does not directly cross the Umatilla National Forest or the associated Management Areas A3 or A4. Determination of conformance with VQOs within the Umatilla National Forest is therefore not appropriate for this Project.

Department of Defense

The Navy administers the NWSTF Boardman (Navy 2015). The Navy has not developed a comprehensive plan for the training facility that is comparable to the BLM and USFS management plans. In compliance with the Sikes Act, however, the Navy developed and implemented an integrated natural resources management plan for the facility (Navy 2012). Integrated natural resource management plans are based on ecosystem management principles and provide for management of natural resources, multipurpose use of resources, and public access to resources without inhibiting the military's mission. VRM is included in the Navy's Integrated Cultural Resources Management Plan, as implemented in 2014. This plan addresses management of visual resources in the context of compliance with NHPA Section 106. For the B2H Project, visual impacts on cultural resources will be addressed in the Programmatic Agreement.

Bureau of Reclamation

Federal lands within the study corridor that are under the jurisdiction of Reclamation include a small portion of the Owyhee River Canyon in Malheur County, Oregon. This area consists of federal project lands associated with Owyhee Dam and Owyhee Reservoir, which are operated by Reclamation. The current management direction for this area is contained in the Owyhee RMP (Reclamation 1994). Associated management direction regarding visual resources consists of general policy statements and does not include site- or area-specific prescriptions. The RMP identifies a goal to "preserve, protect and enhance scenic resources" and objectives to "minimize development in areas that would affect special scenic or wilderness characteristics" and to "maintain primitive, undeveloped character of landscape"

(Reclamation 1994:6–13). Associated management guidelines and actions address facility design, removal of trash dumps and other restoration actions, and aesthetic requirements to be applied to leaseholders.

There are other Reclamation property interests in Morrow and Union counties in Oregon and Owyhee County in Idaho. These properties do not have specific or general management guidelines associated with visual resources.

U.S. Fish and Wildlife Service

The USFWS manages three national wildlife refuges that are located partially or entirely within the B2H Project area: the Umatilla National Wildlife Refuge (NWR) in Morrow County, the McKay Creek NWR in Umatilla County, and the Deer Flat NWR in multiple counties of southwestern Idaho and southeastern Oregon. No VRM direction has been determined for USFWS lands within the study corridor.

Bonneville Power Administration

The BPA manages lands associated with the Longhorn Substation. BPA does not have specific or general management guidelines associated with visual resources.

Confederated Tribes of the Umatilla Indian Reservation

The CTUIR is within the study corridor for visual resources. The Umatilla Indian Reservation includes a variety of landscape types, from broad agricultural plains to enclosed landscapes of rounded mountains with incised drainages. In the CTUIR's 2010 Comprehensive Plan, no specific references are made to visual resources or objectives identified for management of visual resources.

State Lands

State lands within the study area are located within Idaho and Oregon, and are owned by each state, respectively. Lands within the study corridor that are owned by Oregon are managed by the ODOT, the Oregon Parks and Recreation Department (OPRD), and the ODFW. Lands administered by the ODOT are within highway rights-of-way and are managed for transportation purposes – not including specific management of visual resources. The lands administered by the OPRD and the ODFW are somewhat more extensive and varied; the types of management designations and resource management approaches under the jurisdiction of these agencies are summarized below.

Oregon Parks and Recreation Department

The mission of the OPRD is to provide and protect outstanding natural, scenic, cultural, historic, and recreational sites for the enjoyment and education of present and future generations (OPRD n.d.). The department's resources within the B2H Project area include portions of the Blue Mountain Scenic Byway located along I-84 and the Old Oregon Trail Highway. These parcels extend from Deadman's Pass Rest Area in Umatilla County south to Spring Creek in Union County. The corridor protects one of the few undisturbed, mature evergreen forests along I-84 (OPRD n.d.). Hilgard Junction State Park, located in Union County 8 miles west of La Grande at the intersection of I-84 and Oregon State

Highway 244 near the Grande Ronde River, also lies within the B2H Project area. This park offers recreational opportunities and tent camping sites along the Grande Ronde River (OPRD 2014).

The OPRD operates three park units in the eastern part of the study corridor in Oregon. Farewell Bend State Recreation Area is located 3 miles southeast of Huntington in Baker County, along the west bank of the Snake River's Brownlee Reservoir. Lake Owyhee State Park, located 33 miles southwest of Nyssa in Malheur County, includes two campgrounds and a day-use area with a boat ramp. Succor Creek State Natural Area, located approximately 20 miles south of Adrian in Malheur County, includes an unstaffed, no-fee primitive camping area with 67 sites.

The OPRD has prepared master plans for a number of state park system units. However, the list of draft and completed park master plans available on the department's website does not include any of the four park units within the study corridor. Based on the planning documentation available to date, specific management direction for visual resources associated with these parks has not been established.

The OPRD also has a State Designated Scenic Bikeway program. These routes are claimed to represent the "best of the best road biking in all of Oregon." Each designated bikeway has undergone an application, approval, and planning process. This process revolves around a number of desired features, including the following basic characteristics that relate to visual resources:

- Natural scenery with dramatic and diverse views of mountain, forests or deserts, wildlife, lakes, and rivers
- Human-made scenery with multiple opportunities to experience a variety of points of interest, such as buildings, heritage sites, or expansive agricultural landscapes

One scenic bikeway, known as the Grande Tour Bike Route, is located within the study corridor. This route was designated in a figure-8 configuration and is 134 miles long. Important views from this bikeway include views of the Elkhorn Range, Blue Mountains, Eagle Caps, and Wallowa Mountains, along with views of clear streams and serene farmlands, towering windmills, and sweeping sagebrush rangelands. No specific management direction has been determined for the Grande Tour Bike Route.

Oregon Department of Fish and Wildlife

The ODFW manages state wildlife areas primarily to provide wildlife habitat, with recreational use as an incidental benefit in some locations. Five state wildlife areas are located within the B2H Project area, including Coyote Springs Wildlife Area in Morrow County; Ladd Marsh Wildlife Area in Union County; Elkhorn Wildlife Area in Union and Baker counties; Snake River Islands Wildlife Area in Malheur County; and Rogers Wildlife Area, a small property of roughly 100 acres, in Malheur County. Public use for wildlife-oriented recreation is permitted in all of these wildlife areas, with some use restrictions based on type of use, geographic extent, and/or season. Management plans are available for the Columbia Basin Wildlife Areas, including Coyote Springs (ODFW 2008a); the Elkhorn Wildlife Area (ODFW 2006); and the Ladd Marsh Wildlife Area (ODFW 2008b). The management plans focus on habitat and wildlife management and do not address management for visual resources.

OTHER MANAGED VISUAL RESOURCE PROGRAMS

Scenic and Back Country Byways

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. Established in U.S.C. Title 23, Section 162, under the Intermodal Surface Transportation Efficiency Act of 1991, the program was developed to help recognize, preserve, and enhance selected roads throughout the U.S. by establishing certain roads as National Scenic Byways or All American Roads based on their intrinsic qualities (Table 3-400). To be designated a National Scenic Byway, a road must possess characteristics of regional significance in at least one of the intrinsic qualities. All American Roads must possess characteristics of national significance in at least two of the intrinsic qualities. Scenic byways can qualify for Federal Highway Administration funding under two programs—the Federal Lands Access Program or the Federal Lands Transportation Program, in which the federal agencies, along with the state department of transportation and counties, compete for funding. Details on funding as enacted in the Moving Ahead for Progress in the 21st Century Act (Public Law 112-141), MAP-21, can be found here: http://www.fhwa.dot.gov/map21/. America's Byways is the umbrella term used for the collection of the 150 distinct and diverse roads currently designated by the U.S. Secretary of Transportation.

Table 3-400. National Scenic Byway Program Intrinsic Qualities Description

Intrinsic Quality	Description
Archaeological	Archaeological Quality involves those characteristics of the scenic byways corridor that are physical evidence of historic or prehistoric human life or activity that are visible and capable of being inventoried and interpreted.
Cultural	Cultural Quality is evidence and expressions of the customs or traditions of a distinct group of people. Cultural features include crafts, music, dance, rituals, festivals, speech, food, special events, and vernacular architecture and are currently practiced.
Historic	Historic Quality encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or man-made, that are of such historic significance that they educate the viewer and stir an appreciation for the past. The historic elements reflect the actions of people and may include buildings, settlement patterns, and other examples of human activity.
Natural	Natural Quality applies to those features in the visual environment that are in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landforms, waterbodies, vegetation, and wildlife.
Recreational	Recreational Quality involves outdoor recreational activities directly associated with and dependent on the natural and cultural elements of the corridor's landscape. The recreational activities provide opportunities for active and passive recreational experiences.
Scenic	Scenic Quality is the heightened visual experience derived from the view of natural and man-made elements of the visual environment of the scenic byway corridor. The characteristics of the landscape are strikingly distinct and offer a pleasant and memorable visual experience.

Table Source: Federal Highway Administration 1995

Initiated in 1989, BLM's Back Country Byway Program is a component of the National Scenic Byways Program. The National Back Country Byway Program functions as BLM's contribution to the larger National Scenic Byways Program as a whole, and the Back Country Byways are designated by BLM

State Directors on BLM public lands. BLM has established four category types of back country byways based on the accessibility of the routes; these types are provided in Table 3-401.

Individual states also have developed programs to recognize and manage outstanding scenic routes as well as other qualities similar to the National Scenic Byways Program. The Idaho Transportation Department was designated by the governor as the lead agency responsible for administering the Idaho Scenic Byways Program to meet the requirements of the Intermodal Surface Transportation Efficiency Act of 1991. The Oregon Scenic Byways Program was created also as an opportunity for Oregon to take advantage of the national program defined under this act. The Oregon program includes two categories of routes: scenic byways and tour routes. Oregon scenic byways must be a minimum of 30 miles in length and include outstanding scenic roads that accommodate most travelers. Tour routes must be a minimum of 20 miles in length and include unique regional features or points of interest that draw people out of their vehicles, and tour routes also may have some form of limited drivability (Oregon Scenic Byways Program 1995).

Table 3-401. Bureau of Land Management Back Country Byways Category Types

Type	Description
Type I	Roads are paved or have an all-weather surface and have grades that are negotiable by a normal touring car. These roads usually are narrow, require a slow speed, and are secondary roads.
Type II	Roads require high-clearance type vehicles, such as trucks or vehicles with 4-wheel drive. These roads usually are not paved but may have some type of surfacing. Grades, curves, and road surface are such that they can be negotiated with a 2-wheel-drive high-clearance vehicle without undue difficulty.
Type III	Roads require 4-wheel-drive vehicles or other specialized vehicles, such as dirt bikes or all-terrain vehicles. These roads usually are not surfaced but are managed to provide for safety considerations and resource protection needs.
Type IV	Trails are managed specifically to accommodate dirt bike, mountain bike, snowmobile, or all-terrain vehicle use. These trails usually are single-track trails.

Table Source: Bureau of Land Management 2004

In the B2H Project area, there is one designated All American Road, one National Scenic Byway, five state scenic byways, one tour route, and one back country byway (Table 3-402, Map 3-4, and MV-23).The Hells Canyon Scenic Byway, Blue Mountain Scenic Byway, Elkhorn Scenic Byway, and Journey through Time Scenic Byway and Grande Tour Route are all considered to be both Oregon Scenic Byways and Wallowa-Whitman National Forest Scenic Byways. Some portions of different byways overlap and share segments of the same routes (e.g., the Snake River-Mormon Basin Back Country Scenic Byway overlaps with a portion of the Hells Canyon Scenic Byway along Oregon Route 86). Hells Canyon Scenic Byway is a 208-mile-long All American Road along portions of Oregon Routes 86 and 82 within the B2H Project area whose route takes motorists along the 8,000-foot-deep Hells Canyon and the 10,000-foot peaks of the Wallowa Mountains. The Blue Mountain Scenic Byway (Oregon Route 74 within the B2H Project area) is a 145-mile-long alternative route to I-84 between Arlington and Baker, providing glimpses of the pioneer history of the area, as well as spectacular scenery. The winding 106-mile loop of the Elkhorn Scenic Byway follows U.S. Route 30 and Forest Road 73 within the B2H Project area, encircles the Elkhorn Mountains, and passes by abandoned gold mines and ghost towns. Following a 100-mile segment of the Wild and Scenic John Day River, the

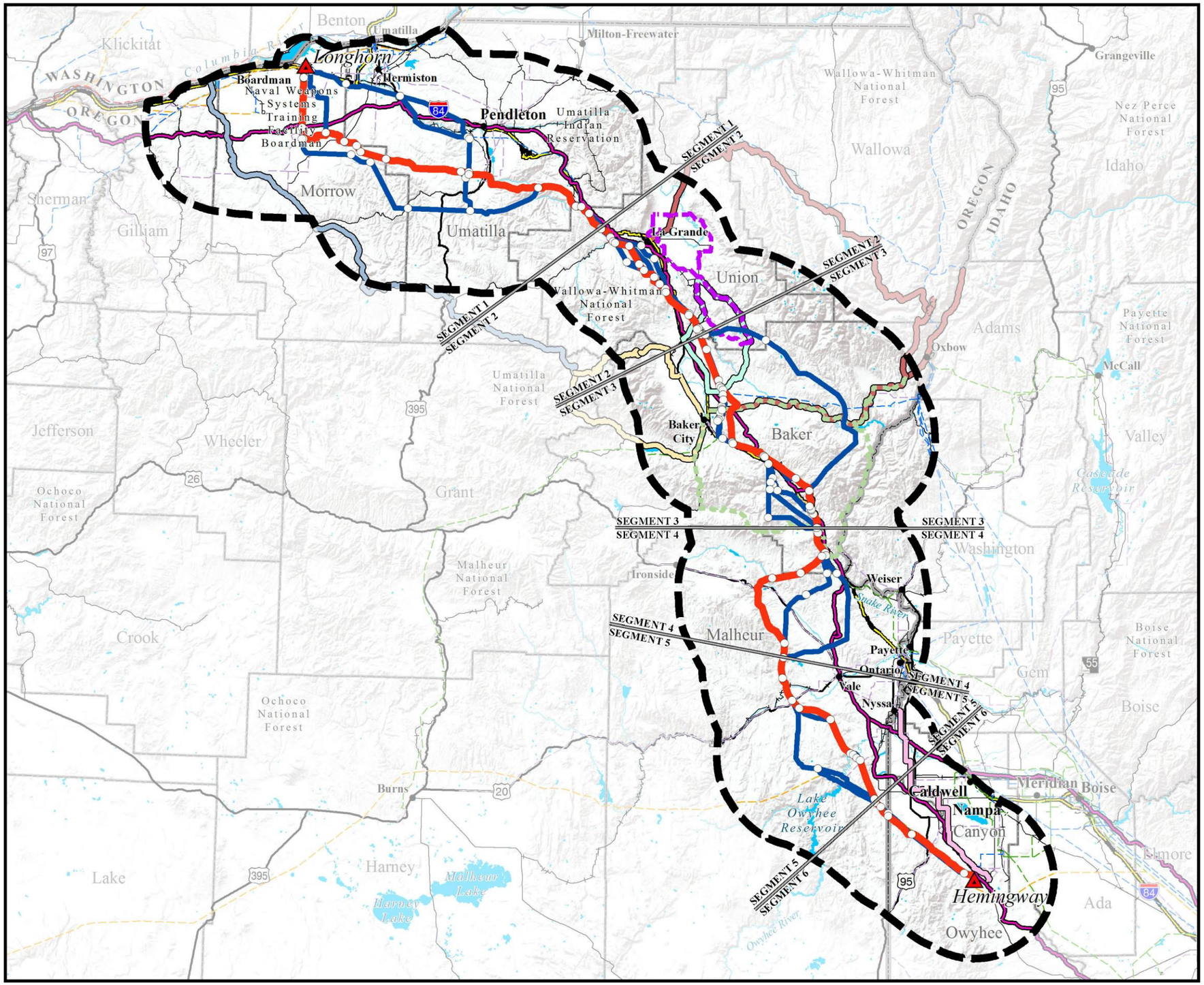
Journey through Time Scenic Byway (Oregon Route 7 within the B2H Project area) is a 285-mile-long route that provides opportunities for motorists to view many aspects of Oregon pioneer life and well-preserved fossil records of plant and animals dating back 54 million years ago.

Table 3-402. Scenic and Back Country Byways in the Study Corridor

Intrinsic Qualities	Corridor Management Objectives	Corridor Management Proposed Enhancement Projects
Blue Mountain Scenic Byway (Oregon)		
Scenic, historic, and recreational	• Provide long-lasting economic support for local communities along the route • Assist in enhancing the production of outdoor recreation opportunities • Link people and resources through a natural and historical journey	No projects identified in the byway's 2004 Corridor Management Plan
Elkhorn Scenic Byway (Oregon)		
Scenic, historic, natural, and recreational	• Increase public understanding and appreciation for the nation's environment, history, and culture • Reveal a modern working forest steeped in history	No projects identified in the 1994 Scenic Byway Management Plan
Grande Tour Route (Oregon)		
Scenic, historic, and natural	• Strengthen local economies • Build a bridge between urban and rural residents • Preserve and maintain the area's history • Provide opportunities for education	• Interpretive signs • Marketing strategy
Hells Canyon All American Road (Oregon) [also known as the Hells Canyon Scenic Byway]		
Scenic, natural, historic, and recreational	• Showcase the unique, diverse, and outstanding scenery in Northeast Oregon • Stimulate the local economies of Northeast Oregon in all seasons • Upgrade and improve public land facilities • Maintain the remote and rugged character that is significant to the rural lifestyle • Develop the byway around the interpretive themes	No projects identified in the byway's 2004 Corridor Management Plan
Journey Through Time Scenic Byway (Oregon)		
Scenic, natural, and historic	• Serve to enhance and protect the valuable heritage resources along the unique corridor • Provide a source of economic vitality for the region • Create jobs • Maintain rural lifestyles • Protect important values • Build identity for the North-Central Region	No projects identified in the byway's 1996 Management Plan
Lewis and Clark Trail Scenic Byway (Washington)		
Scenic, natural, historic, cultural, and recreational	• Leave a lasting legacy of improvements • Enhance visitors' experience Encourage development of plans and projects that are	Priority Bicentennial Projects in the vicinity of the study corridor: • #3 Sacajawea State Park and

Table 3-402. Scenic and Back Country Byways in the Study Corridor		
Intrinsic Qualities	**Corridor Management Objectives**	**Corridor Management Proposed Enhancement Projects**
	consistent with the values and perspectives of tribes and local communities along the trail route • Relate the significance of and provide interpretation about the Lewis and Clark Expedition to people of the Pacific Northwest, the nation, and the world	Interpretive Site, Tri-Cities area • #8b Lewis and Clark Discovery Trail/Pacific County Phase • #9 Confederated Tribes of Umatilla Homelands Project, Umatilla and Morrow counties, Oregon, and Southeast Washington • #15c Sacajawea Heritage Trail and related sites, Tri-Cities • #20 Wanapum Replica Village, Tri-Cities area
Snake River Canyon Scenic Byway (Idaho)		
Scenic, natural, archaeological, cultural, and recreational	• To continually improve the byway experience for all visitors • To provide diverse and interesting sites and information that offer quality experiences • To offer all visitors an appreciation and understanding of the historic, cultural, recreational, scenic, natural, and archaeological stories along the byway	Key site improvements identified at Walter's Ferry; Pump Road Overlook; Map Rock Interpretive Site; cities of Marsing, Greenleaf, Wilder, Caldwell, Nampa, and Homedale; rural farm stands and farmers' markets; vineyards and wineries; Hops Fields and City of Wilder; Old Fort Boise Replica and City of Parma; and the Fort Boise Wildlife Management Area
Snake River-Mormon Basin Back Country Byway (Oregon)		
Scenic, natural, recreational, and historic	• Maintain scenic values • Encourage tourism as a way to diversify the economic base of local governments • Promote use and enjoyment of recreation areas	Additional signage
Western Heritage Historic Byway (Idaho)		
Scenic, natural, and historic	• To preserve, enhance, and showcase select geologic, wildlife, scenic, historic, cultural, and recreational resources along the byway, while respecting local residents and lifestyles • To attract local, regional, national, and international visitors to southwest Idaho to enjoy rewarding and memorable experiences of the people and places along the byway • To provide visitor services that consider access, safety, and convenience for people of all ages • To maintain the byway's unique cooperative partnership of local, state, private, and federal agencies in implementing byway improvements	Projects identified in the 2004 Western Heritage Historic Byway Corridor Management Plan: • Byway Orientation Portal • Kuna/Indian Creek Visitor Center • Snake River Birds of Prey National Conservation Area Pullout • Initial Point • Snake River Birds of Prey National Conservation Area/Dedication Point • Pioneer Cemetery/15-Mile Station • Kuna Cave • Snake River Birds of Prey National Conservation Area/Three Pole • Swan Falls Dam • Celebration Park • Melba Loop • Silver Trail

This page intentionally left blank.



Map 3-4

Scenic Byways, Back Country Byways, and Scenic Bikeways

BOARDMAN TO HEMINGWAY TRANSMISSION LINE PROJECT

Scenic Byways, Back Country Byways, and Scenic Bikeways

- Blue Mountain Scenic Byway
- Elkhorn Drive Scenic Byway
- Grand Tour Route Scenic Bikeway
- Grand Tour Auto Route
- Hells Canyon All American Road
- Snake River Canyon Scenic Byway
- Snake River-Mormon Basin Back Country Byway

Project Features

- Project Area Boundary
- Substation (Project Terminal)
- Applicant's Proposed Action Alternative
- Alternative Route
- Link Node
- Segment Line

General Reference

- City or Town
- 500-kV Transmission Line
- 345-kV Transmission Line
- 230-kV Transmission Line
- 138-kV Transmission Line
- 69- to 115-kV Transmission Line
- Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- Lake or Reservoir
- State Boundary
- County Boundary
- Oregon National Historic Trail Congressionally Designated Alignment

SOURCES:
Scenic Byways or Backways, BLM 2015, Oregon DOT 2008, Washington DOT 2012; Cities and Towns, ESRI 2013;
Transmission Lines, Bonneville Power Administration 2009, Idaho Power Company 2007, Logan Simpson Design 2011, Ventyx 2012; Pipelines, ESRI 2012;
Railroads, Idaho DOT 2006, Oregon DOT 2014; Highways, ESRI 2013;
Waterbodies, ESRI 2013; State and County Boundaries, ESRI 2013;
Oregon National Historic Trail Congressionally Designated Alignment, BLM 2015

NOTES:
- The alternative routes shown on this map are draft and may be revised or refined throughout the development of the project.
- Substation symbols do not necessarily represent precise locations.
- The B2H Project area boundary is defined by buffering the alternative route centerlines.
- Each alternative route is composed of links, which are discrete sections of the route sharing common endpoints determined by the point of intersection with other adjacent links; the common endpoint is referred to as a link node. Links generally are numbered from north to south. Similarly, a segment is composed of alternative routes that share common endpoints determined by the point of intersection with other adjacent alternative routes; the common endpoint is referred to as a segment node.
- No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Alternative routes last revised: February 18, 2016
Final EIS: November 2016

0 5 10 20 30 40
Miles
1:1,393,920 or 1 inch = 22 miles

This page intentionally left blank.

The 80-mile-long Grande Tour Route climbs across mountains and open valleys and overlooks the Ladd Marsh Wildlife Refuge using Oregon Routes 82, 203, and 237 within the B2H Project area. A high-clearance vehicle is needed to travel the entire route of the BLM's Snake River-Mormon Basin Back Country Byway in northeast Oregon. The byway, which begins and ends in Baker City, forms a 150-mile-long loop drive along portions of Oregon Routes 7 and 86 within the B2H Project area. In Idaho, the 53-mile-long Snake River Canyon Scenic Byway crosses a sagebrush-covered valley rich in early settlement history and uses Idaho Route 45 and local roads within the B2H Project area. The byway also crosses the Deer Flat NWR. The Western Heritage Historic Byway is a 40-mile route along the Snake River in Idaho and is a designated National Scenic Byway. The B2H Project area also includes a small portion of the Lewis and Clark Trail Scenic Byway along Washington Route 14, which is more than 570 miles in length and parallels the Columbia River.

National Historic Trails

Refer to Section 3.2.15.2 of the EIS for a description of the NHTs within the study corridor.

Wild and Scenic Rivers

Refer to Section 3.2.11 of the EIS for a description of the designated Wild and Scenic Rivers within the study corridor.

Local Government Lands

Counties and incorporated communities collectively own a small acreage of land within the study corridor, most of which is associated with public facilities, utility operations, and open space areas that these entities provide for their residents. The study corridor for this report includes all county and municipal lands where the proposed transmission line would be located, as well as nearby counties and municipalities within a 5-mile radius of the proposed transmission line. Review of county and municipal comprehensive plans for the respective jurisdictions indicates that the plans provide overall management direction for these local government lands but does not prescribe management direction specific to visual resources. Note, visual resources were inventoried and assessed on local governmental lands in a consistent manner as used for other lands.

Private Lands

Private lands crossed by the Proposed Action or an alternative route are not subject to the VRM standards that federal or state land-managing agencies would apply. Private lands within the study corridor are subject to land-use regulation of the respective local government jurisdiction (i.e., county or municipality) within which they are located. As noted above, review of local government land-use plans applicable to the potential transmission line locations confirms that these local governments have not established VRM systems for the private lands under their jurisdiction. While local zoning ordinances typically include regulatory provisions that relate to aesthetic or visual concerns, such as height limitations for structures, the local governments do not classify private lands according to their visual resource attributes and do not prescribe levels of visual quality that must be maintained in specific

locations. Note, visual resources were inventoried and assessed on private lands in a consistent manner as used for other lands.

3.2.12.3 Issues Identified for Analysis

During scoping, issues related to visual resources were raised by the public, Native American tribal governments, and federal and state agencies. The following list summarizes the specific issues identified during scoping, as well as the issues that must be considered as required by applicable laws and regulations.

- Concerns related to whether scenic views would be affected by the electrical towers
- Concerns about whether construction of the transmission line would affect visual resources near the Oregon NHT and the National Historic Oregon Trail Interpretive Center
- Concerns related to whether the B2H Project would affect designated scenic byways
- Concerns regarding whether the B2H Project would conform to existing federal VRM objectives

3.2.12.4 Methods

The general study methods used to analyze the impacts of the B2H Project in this EIS are described in Section 3.1.2. This section discusses how the study methods are applied to assess the impacts of the B2H Project on visual resources.

The methods used to analyze the impacts on visual resources from the construction and maintenance of the B2H Project followed three primary steps: (1) establishing existing visual character and inherent scenic quality and identifying locations where people commonly view the landscape, (2) assessing the potential change to the landscape and the effects on views from key viewing locations, and (3) determining compliance with federal resource management objectives.

The inventory and analysis of the visual resources was completed for all lands in the study corridor, regardless of jurisdiction or land ownership. The character of the existing visual resources in the study corridor varies based on the different natural and man-made features or elements in the landscape, as well as the diverse patterns that these elements create when combined. Scenic or visual quality represents the visual appeal of a landscape. The landscape is measured in terms of its distinctiveness; its scarcity; and the variety of the landform, vegetation, water, color, adjacent scenery, and man-made features and how well all of these features work together. The visual character and inherent scenic quality of the visual environment was evaluated using visual analysis units (VAU). Each unit includes similar landforms, vegetation, land use, or man-made patterns and features or contains water features, such as rivers and lakes.

In addition to establishing VAUs to evaluate existing landscape character and scenic quality, specific locations where people view the landscape also were identified. These locations were classified as stationary and linear viewing platforms. Stationary viewing platforms are specific points within the landscape from which the public views the landscape, such as a scenic overlook or interpretive site. Linear viewing platforms, however, are described as roads or trails from which viewers are generally

moving along a given path. Special Management Areas (SMAs) that include management objectives for scenic values also were identified, and the views from these areas were evaluated. Visibility analyses were conducted looking out from each Sensitive Viewing Platform to determine where the B2H Project could be seen.

Visual effects are defined as changes to the visual environment that result from the introduction of modifications to the landscape. An analysis of visual dominance, scale, and contrast was used to determine to what degree the B2H Project would attract attention and to assess the relative change in character as compared to the existing characteristic landscape and its inherent scenic quality. The amount of visual contrast created is directly related to the amount of attention that is drawn to a feature in the landscape.

The third step in the analysis of visual impacts was the determination of conformance with USFS and BLM VRM objectives where the B2H Project would cross federally administered lands. The potential impacts on scenic byways and scenic bikeways also are addressed in this section.

Data Sources

Data for this section were collected from the BLM, the USFS, Visual Resource Report 1, and numerous open sources. Data provided by the BLM included information related to VRIs, field office boundaries, SMAs, and VRM Classes. The USFS provided data related to its visual inventories, VQOs, and USFS roads. Sensitive Viewing Platform-related data, initial contrast-rating forms, and initial site photos were all sourced from Visual Resource Report 1. Data collected from open sources included information related to scenic byways, back country byways, and scenic bikeways.

Analysis Area

The study corridor for visual resources is defined as the area within 5 miles of either side of the B2H Project's centerlines (10 miles total). The study corridor is located within portions of southwestern Idaho and eastern Oregon, including sections of Gilliam, Morrow, Umatilla, Union, Baker, and Malheur counties in Oregon and Washington, Canyon, and Owyhee County in Idaho. The most southern end of Benton County near the Columbia River in Washington also is part of the study corridor.

Impact Assessment and Mitigation Planning

Criteria for Assessing Level of Impacts

Table 3-403 defines the criteria for assessing the level of impacts on visual resources, which are based on thresholds for visual impacts on views from viewing platforms and on the existing landscape's scenic quality and landscape character.

Table 3-403. Criteria for Assessing Level of Impacts on Visual Resources		
Level of Impacts	**Contrast Perceived by Viewers (Scale/Spatial Relationship)**	**Magnitude of Change to Landscape Character and Scenic Quality**
Low	• B2H Project components would either repeat elements/patterns common in the landscape, or would introduce elements/patterns common in the landscape. that would be visually subordinate • B2H Project components would either not be visually evident, or would create weak contrast as compared to other features in the landscape.	• Subtle to notable change • Landscape would either appear to be intact and not attract attention, or would be noticeably altered and begin to attract attention • B2H Project components would either repeat form, line, color, texture or scale common in the landscape and not be visually evident – or the B2H Project components would introduce form, line, color, texture, or scale common in the landscape and would be visually subordinate (low contrast) • There would be no apparent change in scenic quality
Moderate	• B2H Project components would introduce elements/patterns not common in the landscape. • B2H Project components would be visually prominent in the landscape and would create moderate contrast as compared to other features in the landscape.	• Landscape would appear to be substantially altered • There would be a substantial change in scenic quality • B2H Project components would introduce form, line, color, texture, or scale not common in the landscape and would be visually prominent in the landscape (moderate contrast) • B2H Project components would attract attention • B2H Project components would begin to dominate the visual setting • There would be a negative change in scenic quality rating of 1.0 from existing conditions based on the setting the B2H Project sits in as defined by the viewshed and surrounding land-use composition
High	• B2H Project components would introduce elements/patterns that would be visually dominant and create strong contrast as compared to other features in the landscape.	• Landscape would appear to be severely altered • There would be a severe change in scenic quality • B2H Project components would introduce form, line, color, texture or scale not common in the landscape and would be visually dominant in the landscape (strong contrast) • B2H Project components would demand attention • Negative change in scenic quality rating of 1.5 or more from existing based on the setting the B2H Project sits in as defined by the viewshed and surrounding land-use composition • B2H Project components would dominate in the visual setting

Effects Analysis

Assessment of Initial Impacts

Initial impacts on visual resources were assessed with regard to landscape character and scenic quality, and Sensitive Viewing Platforms within the study corridor. The following subsections provide a description of the methods and techniques employed for this assessment.

Landscape Character and Scenic Quality

Landscape character is defined as the actual physical characteristics of the landscape, while scenic quality is an evaluation of the relative value of those physical characteristics. For this analysis, potential impacts on landscape character and scenic quality include physical changes that would occur within the footprint of the B2H Project and on areas that would have views of the B2H Project components.

Because scenic quality impacts would lessen over distance (i.e., potential changes to the landscape are generally more visually evident when they are closer to a particular viewing location), these effects are assessed separately based on distance zones. Two primary distance zones were used in the analysis. The foreground distance zone was defined as the area up to 0.5 mile from the proposed alternatives, and the middleground distance zone was the area extending from 0.5 mile to 5.0 miles.

Initial impacts on the landscape character and scenic quality within the B2H Project area were assessed by determining the magnitude of change expected to occur to the lands within each VAU, regardless of specific viewing locations. The magnitude of change was analyzed based on a combination of fieldwork efforts and desktop analysis and included a determination of potential impacts on different distance-zone areas for the areas within each VAU where the B2H Project could be seen. Using ArcView Spatial Analyst, viewshed analyses were conducted to determine what areas of this landscape could have views of each alternative. These viewshed analyses covered the extent of the visual resources study corridor, a distance of 5 miles on either side of the centerline of each alternative alignment. The analyses were completed based on best available digital elevation model (DEM) data for the area. This type of viewshed analysis also is commonly referred to as a “bare earth” analysis, as it does not reflect existing vegetation or structures that could obstruct potential views of the proposed alternatives. Bare earth analyses, therefore, reflect the worst-case scenario in determining the potential visual impacts. Existing vegetation may help to minimize the impacts by screening views of the B2H Project.

Potential impacts on VAUs are reflected by B2H Project segment and by alternative and are based on the criteria provided in Table 3-403 (Criteria for Assessing Level of Impacts on Visual Resources). Based on the criteria, the level of impact on scenic quality rating scores also was determined. These potential changes in scenic quality rating scores also are associated with the number of visible acres within each VAU, providing a quantification of potential scenic quality impacts. Impacts associated with landscape character and scenic quality are depicted on MV-22.

An additional analysis has also been completed to disclose potential impacts on the scenic quality ratings of BLM scenic quality rating units (SQRU) that the project alignments would cross. This desktop analysis is focused on the potential change in cultural modification score based on the original SQRU boundaries (not limited to the 5-mile buffer that represents the visual analysis area). This analysis is presented in tabular format within Appendix H, and is based on the SQRU scores provided in the VRI reports for the Malheur and Owyhee Field Offices.

Sensitive Viewing Platforms

The analysis of initial impacts on views focuses on locations from which the public could have views of the B2H Project and on whether these views could be adversely modified through the introduction of B2H Project components into the public’s viewshed. The viewing locations, or Sensitive Viewing Platforms, analyzed included both linear and stationary viewing platforms, SMAs, residences within 0.25 mile of the alternative alignments, and official boundaries of incorporated towns and cities. Impacts related to viewers are depicted on MV-23.

The assessment of potential effects on viewing platforms began with a baseline analysis of the degree of contrast expected from B2H Project components. This analysis included an assessment of both structure contrast and landscape contrast. Structure contrast is a determination of expected degrees of contrast between proposed aboveground facilities and their relationship to existing built features, while landscape contrast is an analysis of expected degrees of change to the existing landforms and vegetation types through the construction of access roads and tower pads as well as right-of-way vegetation clearing. These analyses are conducted using predictive GIS modeling and result in a depiction of expected degrees (high, moderate, or low) of overall B2H Project-related contrast along each alternative alignment. The varying degrees of B2H Project contrast are then combined with distance-zone offsets from each viewpoint considered within the analysis. These viewer-related distance zones, otherwise known as viewer influence zones, represent decreasing degrees of visual influence that the B2H Project would have on views as distance from the viewing locations increases. Five influence zones were used for this analysis: 0 to 0.5 mile; 0.5 to 1 mile; 1 to 2 miles; 2 to 3 miles; and 3 miles and greater.

The combination of B2H Project contrast and viewer influence zones results in a representation of overall viewer impacts that can be directly correlated to portions of the alternative alignments. Viewshed analyses from each viewing platform also are considered during this assessment to accurately reflect portions of the alternative alignments that would not be seen from the viewing platforms. The results of this analysis are included for each alternative alignment by segment—providing the miles of impacts on viewing locations by alternative route.

From an organizational standpoint, the Sensitive Viewing Platform types are discussed in the analysis relative to their relationship to residences, recreational use, and general travel routes. Stationary viewing platforms considered in the analysis include both residences and recreational uses. Residential users are represented by several datasets within the analysis, including stationary platforms that were chosen to represent communities, residential areas, or individual homes or ranches; best available data for residences within 0.25 mile of the alternatives; and boundaries of incorporated communities. Recreational uses represented by stationary viewing platforms include stationary Sensitive Viewing Platforms, such as trailheads, scenic viewpoints, parks, interpretive sites, campgrounds, and dispersed recreation points.

Linear viewing platforms considered within the analysis include either sensitive routes or highly used travel routes, or both, in addition to routes that have a specific recreational use, such as scenic byways and scenic bikeways. SMAs, however, generally are based on recreational uses, including dispersed wilderness recreation, as well as scenic driving, hiking, and viewing uses.

In addition to the assessment of the overall viewer impacts discussed above, each of the stationary platforms, linear viewing platforms, and SMAs were analyzed individually based on the criteria defined in Table 3-403. These analyses considered a number of environmental factors in the overall determination of perceived contrast. The key factors considered include the visibility conditions, angle of view, and duration of view. Each of these environmental factors can influence the amount of visual contrast, dominance, and level of attraction introduced by B2H Project components.

Visibility conditions refer to how B2H Project components in the landscape would be viewed from viewing platforms, as opposed to simply whether the B2H Project would be seen from the platforms. These conditions are assessed by noting the juxtaposition of the B2H Project components in the landscape. One condition considered is whether B2H Project components would be seen predominantly skylined (silhouetted above the landforms) or backdropped against landforms. The second condition is whether the views of B2H Project components would be predominantly unobstructed or partially obstructed. The third visibility condition takes into account whether views of B2H Project components would be predominantly continuous (landforms or other features would be viewed over a distance) or intermittent/discontinuous (landforms or other landscape features would break up or obstruct the view of B2H Project components). Refer to Figure 3-1 for a photographic example of visibility conditions.

Figure 3-1. Example of Visibility Conditions

Figure Note: Photograph depicts a transmission line whose visibility conditions are characterized as skylined, unobstructed, and continuous from this viewpoint.

The views from Sensitive Viewing Platforms also can be affected by the angle of view, which is considered differently for linear and stationary platforms. The angle of view from linear viewing platforms is considered in terms of viewer position and view orientation. View orientation from linear viewing platforms is categorized as predominantly “head-on” views (directly in front of the viewer) or parallel views (tangential to the viewer) from linear viewing platforms. In contrast, the angle of view from stationary platforms is considered in relation to the degree of exposure within the 360 degrees of potential viewing area—that is, how much of the B2H Project components would be seen if viewers were to turn in a complete circle. The angle of view from stationary platforms also is evaluated to determine whether the B2H Project components would be seen in the same viewing direction as the primary feature, if there is one. For example, at a scenic overlook with a view of a landmark feature, the

evaluation would document whether the B2H Project components would be seen as part of the typical view of the landmark. Viewer position for both linear and stationary platforms is characterized as superior to (above), neutral to, or inferior to (below) the B2H Project components. Refer to Figure 3-2 for a photographic example of viewer position and view orientation conditions along a linear viewing platform.

Figure 3-2. Example of Viewer Position and Orientation Conditions along Linear Viewing Platform

Figure Note: Photograph depicts a neutral viewer position for motorists along the road, meaning that the base of the towers and the road are relatively at the same level or elevation. The motorists along this section of the road generally have parallel views of the towers and transmission lines.

The duration of view—that is, how long, in time or distance, B2H Project components would be seen from Sensitive Viewing Platforms—also is considered in determining the magnitude of potential impacts on the views from linear and stationary platforms. For linear viewing platforms, the duration of view considers the percentage of the total travel time along the platform during which the B2H Project components would be seen, the percentage of the total travel distance (miles) along the platform from which the B2H Project components would be seen, and the percentage of the total miles of the B2H Project components that would be seen along the platform. For stationary platforms, the duration of view is considered in terms of percentage of the total miles of the B2H Project components that would be seen from the platform.

The last two environmental factors considered in this analysis—scale and spatial relationship—represent a culmination of the other factors and are, therefore, an evaluation of the total degree of contrast (prominence) of the B2H Project components in relation to the surrounding landscape when viewed from linear and stationary viewing platforms. More specifically, scale refers to the size of the

B2H Project components relative to various landscape features. For example, the larger the B2H Project components appear in relation to the existing landscape features, the less they would repeat the common elements and patterns in the surrounding landscape and the more they would appear to dominate the landscape.

In addition to scale, the arrangement or spatial relationship of landscape features also can affect the visual prominence of B2H Project components when viewed from Sensitive Viewing Platforms. Consideration of the amount of visual contrast created is directly related to the amount of attention that is drawn to an element in the landscape. For this analysis, contrast is assessed by comparing the B2H Project components with the major features in the existing landscape. Refer to Figure 3-3 for a photographic example of scale and spatial relationship.

Figure 3-3. Example of Scale and Spatial Relationship

Figure Note: Photograph depicts a neutral viewer position for motorists along the road, meaning that the base of the towers and the road are relatively at the same level or elevation. The motorists along this section of the road generally have parallel views of the towers and transmission lines.

Impacts from the B2H Project also were evaluated in terms of the impacts over time. For this analysis, short-term impacts are defined as effects that would last less than 5 years and long-term impacts are defined as effects that would last more than 5 years, as outlined in Section III.D.1 of BLM Handbook H-8431-1 (BLM 1986a).

Potential impacts on stationary platforms, linear viewing platforms, and SMAs related to NHTs are included in Section 3.2.15.

Conformance with Management Objectives

The assessment of conformance with management objectives provides a determination of whether the modifications introduced by the B2H Project would be consistent with existing land management objectives related to scenery. This assessment includes assessment of conformance with management objectives for lands managed by both the BLM and USFS, in addition to objectives associated with scenic byways, back country byways, and scenic bikeways. The assessment of conformance with management objectives is depicted on MV-24.

Conformance with BLM VRM class objectives is directly related to the anticipated degree of contrast expected from each viewing platform that the BLM has determined to be a BLM Sensitive Viewing Platform. The BLM's standard degrees of contrast (strong, moderate, weak, and none) align with the criteria defined in Table 3-403 Accordingly, a high degree of impact (strong contrast) would conform only with VRM Class IV; a moderate degree of impact (moderate contrast) would conform with VRM Classes IV or III; a low degree of impact (weak contrast) would conform with VRM Classes IV, III, or II; and a degree of contrast with "no impacts" (no contrast, or "none") would conform with VRM Classes IV, III, II, and I.

Each of the BLM-related viewing platforms is included within the viewing platform tables in the analysis and includes a determination of conformance for each VRM class that would be visible from the respective platform. Per the requirements in BLM Manual 8400, a contrast-rating form also was completed for each BLM Sensitive Viewing Platform. These rating forms are provided in Appendix H and include specific explanations regarding the anticipated level of contrast for each Sensitive Viewing Platform, as well as specific mitigation measures to reduce the amount of potential impact. It is important to note that although all NHT-related visual impact descriptions are located in Section 3.2.15, information about conformance related to NHT-related BLM Sensitive Viewing Platforms has been included in this section of the document to keep all BLM conformance issues organized within one specific section of this EIS.

USFS-related conformance instead was based on potential impacts on landscape character and, therefore, draws directly from the impacts anticipated on scenic quality within the foreground distance zone of each VAU. These results are included by segment in the USFS conformance tables for each alternative alignment. The level of impact (high, moderate, low, and none) defined in Table 3-403 align with USFS VQOs to determine conformance with management objectives. A high degree of impact would conform only with Maximum Modification; a moderate degree of impact would conform with both Maximum Modification and Modification; a low degree of impact would conform with Maximum Modification, Modification, and Partial Retention; and a degree of impact with "no impacts", or "none" would conform with Maximum Modification, Modification, Partial Retention, and Retention.

Because scenic byways, back country byways, and scenic bikeways within the study corridor do not have specific thresholds for conforming to management objectives, conformance associated with these route designations is discussed narratively within the analysis based on the goals or objectives of these specially designated routes.

Mitigation Planning and Effectiveness

Design features of the B2H Project for environmental protection are part of the B2H Project description and would be applied to reduce potential impact levels. These design features include key design elements such as the use of non-specular conductors, a dulled galvanized steel finish for steel lattice towers, and a weathered steel (Cor-ten) finish for steel H-frame structures. To further reduce impacts in more sensitive portions of the B2H Project area and to assist with agency conformance, a number of additional mitigation measures were developed. The selective mitigation measures specifically proposed for visual resources are as follows:

- **Selective Mitigation Measure 1 (Limit Widening of Existing Roads in Areas of Sensitive Soils and Vegetation)**. In areas where soils, vegetation, and/or streams are sensitive to disturbance, existing roads to be used for construction of access and/or B2H Project maintenance would not, as much as possible/practicable, be widened or otherwise upgraded except in areas necessary to make existing roads passable and safe.
- **Selective Mitigation Measure 2 (Use Existing Access and/or Crossing for Sensitive Resources Avoidance)**. Existing access and/or stream crossings would be used as much as possible/practicable for construction and maintenance to avoid disturbance of sensitive resources crossed by the B2H Project.
- **Selective Mitigation Measure 4 (Minimize Slope Cut and Fill for Access and Work Areas)**.The alignment of new access roads would follow the landform contours where practicable to minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape. Modification to the size and/or configuration of the structure work areas facilitated by minor structure design adjustments (e.g., altering leg length) would be used to minimize cut and fill slopes and blend contours with existing topography.

  Additionally, soil amendments or mineral emulsions would be applied, or grading techniques such as slope rounding and slope scarification would be used to blend road and structure work area cuts into the landscape in areas of steep terrain where grading is necessary, in rocky areas, or where soil color would create strong landscape contrasts.

- **Selective Mitigation Measure 5 (Minimize Vegetation Clearing for Operational Clearances)**. Removal of vegetation in the right-of-way would be minimized to limit disturbance to timber resources, reduce disturbance to agricultural production, reduce visual contrast, and protect sensitive habitat, subject to structure- and conductor-clearance requirements. Trees and other vegetation would be removed selectively (e.g., edge feathering) to blend the edge of the right-of-way into adjacent vegetation patterns, as practicable and appropriate

- **Selective Mitigation Measure 6 (Limit New or Improved Accessibility to Areas Previously Inaccessible)**. In areas of sensitive habitat or areas sensitive to additional public access, new or improved access in the B2H Project area would be limited.

  New or improved access would be closed or rehabilitated using the most effective and least environmentally damaging methods appropriate to that area (in consultation with the landowner

or land-managing agency). Methods for road closure or management may include installing locking gates, obstructing the path (e.g., earthen berms, boulders, redistribution of woody debris), revegetating and mulching the surface of the roadbed to make it less apparent, or restoring the road to its natural contour and vegetation.

- **Selective Mitigation Measure 7 (Tower Design Modification)**. The tower design may be modified to reduce resource impacts. Modifications include use of alternative structure type, modifying tower height, modifying tower leg lengths to accommodate varied terrain, and changing tower finish type.
- **Selective Mitigation Measure 9 (Match Transmission Spans)**. Standard tower design would be modified to correspond with spacing of existing transmission line structures of similar voltage and/or span lengths, where feasible and within limits of standard tower design, to reduce visual contrast and/or potential operational conflicts. The normal span would be modified to correspond with existing towers, but not necessarily at every location.
- **Selective Mitigation Measure 14 (Overland Access)**. In addition to using overland travel in work areas, overland access to work areas may be used to reduce resource impacts. The construction contractor would use overland access in areas where no grading would be needed to access work areas. Overland access would consist of drive-and-crush (i.e., vehicular travel to access a site without significantly modifying the landscape, cropping vegetation, or removing soil) and/or clear-and-cut travel (removal of all vegetation while leaving the root crown intact to improve or provide suitable access for equipment). Prior to commencement of work activities, overland access routes would be staked. Routes would be specified in the POD. Use of overland access routes would be restricted based on dry or frozen soil conditions, seasonal weather conditions, and relatively flat terrain.

For more information, refer to Chapter 2 under Table 2-13. Selective Mitigation Measures.

Along with following guidelines based on *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM Lands*, in an attempt to decrease the level of impacts on key areas, these mitigations were generally applied to:

- Areas with Class A scenic quality where B2H Project contrast would be high or moderate
- Areas with Class B scenic quality where B2H Project contrast would be high
- Areas in which viewer impacts would be high or, in some cases, moderate
- Areas in proximity to Sensitive Viewing Platforms from which impacts would be high or moderate
- Areas where the analysis identified noncompliance with management objectives
- Areas about which agencies or the public have expressed particularly strong concerns

Residual Impacts

Residual impacts on visual resources were determined by applying the additional mitigation measures to lessen initial impacts from the B2H Project. The analyses presented in the Visual Resources section represent residual impacts only; for clarity, initial impacts are not included in this section.

3.2.12.5 AFFECTED ENVIRONMENT

The following section describes the existing visual resources of the study corridor. This section provides information about the general regional character in relation to ecoregions, the visual environment by county, an overview of the existing visual resources by Segment, and a comparison by Segment of pertinent BLM and USFS visual resource components for each route alternative and option. Additional detail regarding the affected environment can be found in the VAU Description Table in Appendix H.

REGIONAL LANDSCAPE CHARACTER

Visual resources traversed by the route are a result of geology, climate, and historical processes and are influenced by topographic relief, vegetation, water, wildlife, and land use. Human uses, such as industrial uses, timber, agriculture, and urban development activities, also are considered as part of the scenic resources of the study corridor. The regional landscape character of the existing visual resources within the study corridor is described below in terms of ecoregion classifications. The B2H Project spans portions of four ecoregions, including the Columbia Plateau, Blue Mountains, Northern Basin and Range, and Snake River Plain (Map 3-5). The ecoregion classifications for Oregon and Idaho were designed to fit with a comparable, hierarchical system for the U.S. published by the U.S. EPA and referred to as the North American Ecoregions Level III (EPA 2010).The general characteristics of the ecoregions within the study corridor are summarized below.

Columbia Plateau

The Columbia Plateau covers much of central and southeastern Washington, north-central Oregon, and a small portion of northwestern Idaho. The plateau consists of nearly horizontal sheets of lava built up over time, and its surface is generally flat to rolling, with some variations. It is an arid area with sagebrush steppe and grassland native vegetation communities. The region is flanked by moister, predominantly forested, mountainous ecoregions, primarily the Cascades to the west and the Blue Mountains to the south and southeast. Geologically, the Columbia Plateau is known for a deep foundation of multiple layers of volcanic basalt up to 2 miles thick. The Columbia River bisects the plateau and is the dominant water feature in the ecoregion (EPA 2010).

Blue Mountains

This region is a mountainous area located chiefly in northeastern Oregon but extending a short distance into southeastern Washington. The Blue Mountains Ecoregion includes several mountain ranges that are mostly volcanic in origin and that are lower and more open than the neighboring Cascades and Northern Rockies. The Wallowa and Elkhorn mountains are the highest of the ranges and form the core of the region. These mountains are composed of granitic intrusive, deep sea sediments and metamorphosed rocks rising 9,000 feet above sea level and 3,000 feet above the dissected plateau surface.

In the western portion of the Blue Mountains, the Mesic Forest subregion has a marine influence and has higher precipitation than other forested Blue Mountains ecoregions. The ashy soil holds moisture during the dry season and supports a productive spruce-fir forest. In addition,

these soils over basalt retain sufficient moisture to support forest cover at lower elevations than elsewhere in the Blue Mountains. A dense and diverse shrub layer grows beneath the relatively open canopy of ponderosa pine and Douglas-fir (EPA 2010).

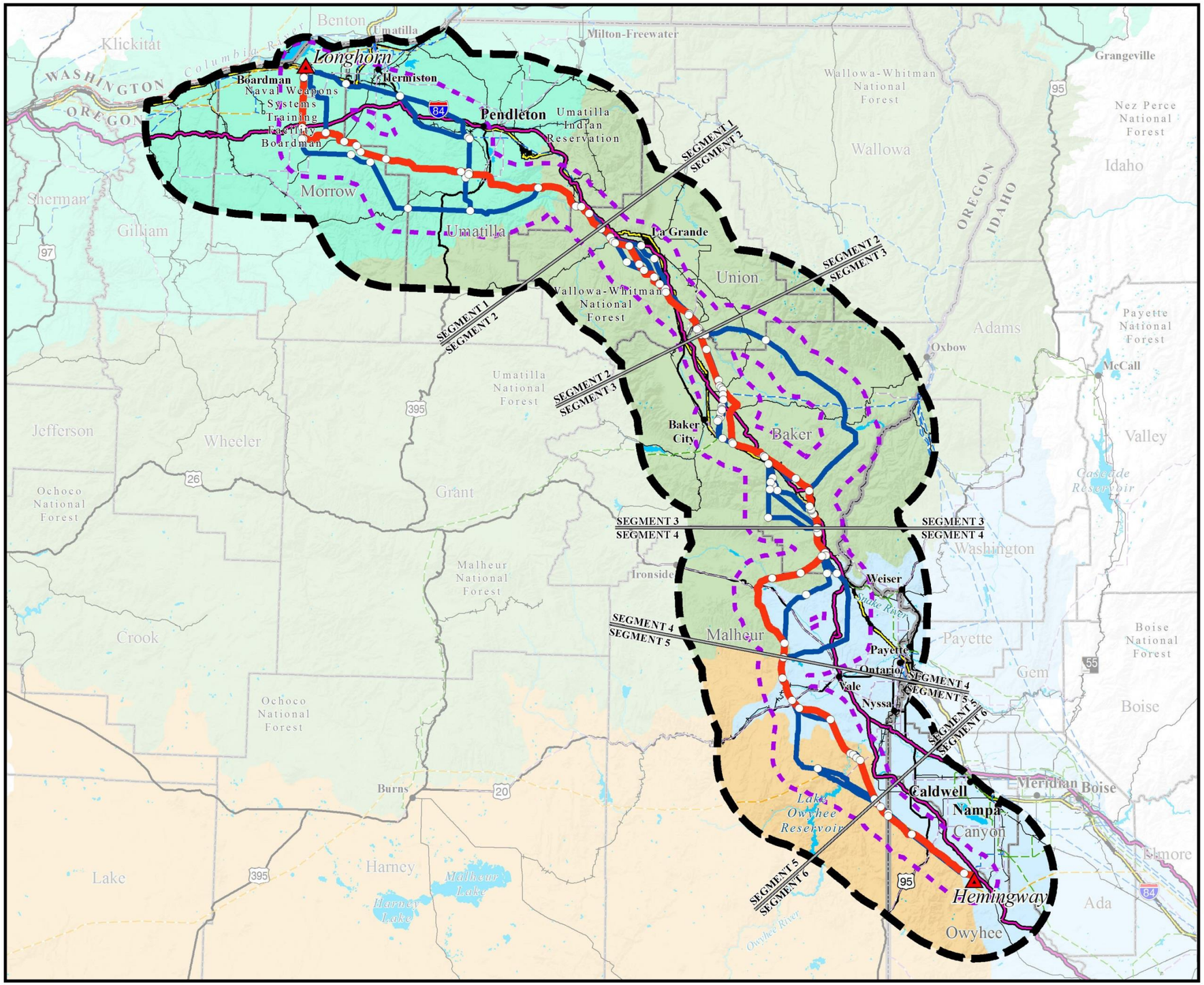
To the east, beyond the Mesic Forest subregion, is an area that includes the Grande Ronde and Baker valleys, which receive stream flow from the surrounding Blue Mountains. The Grande Ronde Valley has a more marine-influenced climate, while the Baker Valley is in the rain shadow of the Elkhorn Mountains and is therefore drier. Much of the valley floor area in this part of the Blue Mountains is now used for agriculture. The southeastern part of the Blue Mountains region has a continental climate and experiences wide temperature variations and high evapotranspiration rates. Natural vegetation consists primarily of desert shrubs, including bitterbrush and mountain mahogany (EPA 2010).

Northern Basin and Range

A portion of the study corridor in central Malheur County is within the Northern Basin and Range Ecoregion, and from approximately Lake Owyhee eastward to Hemingway, the Proposed Action essentially is located in the transition zone between the Northern Basin and Range and Snake River Plain ecoregions. The predominant land use within this ecoregion is rangeland. The Northern Basin and Range Ecoregion contains dissected lava plains, rolling hills, alluvial fans, valleys, and scattered mountains. The area is somewhat higher and cooler than the Snake River Plain with sagebrush as the predominant natural vegetation in the basin areas. The ranges typically are covered with mountain mahogany, junipers, and pines and in the higher elevations, aspen and Douglas firs (EPA 2010).

Snake River Plain

The plains and low hills of the Snake River Plain are part of the xeric intermontane west. The Snake River Plain is considerably lower and less rugged than the adjacent ecoregions. Many of the alluvial valleys bordering the Snake River are used for agriculture and principally grow sugar beets, potatoes, alfalfa, small grains, and vegetables. Outside of the alluvial valleys, the remainder of the Snake River Plain in both Oregon and Idaho is covered by sagebrush—grassland with rolling foothills, hills, benches, and scattered badlands that are characteristically underlain by alkaline lacustrine deposits. Salt-tolerant shrubs, including black greasewood, fourwing saltbush, inland saltgrass, and shadscale, occur on alkaline outcrops. Vegetation outside of agricultural areas is dominated by Wyoming big sagebrush, basin big sagebrush, bluebunch wheatgrass, and cheatgrass. In saline areas, greasewood and saltgrass occur (EPA 2010).



Map 3-5

Ecoregions within the Visual Resources Study Corridor

BOARDMAN TO HEMINGWAY TRANSMISSION LINE PROJECT

Ecoregions

- Blue Mountains
- Columbia Plateau
- Northern Basin and Range
- Snake River Plain

Project Features

- Project Area Boundary
- 5-mile Radius from Route Centerlines
- Substation (Project Terminal)
- Applicant's Proposed Action Alternative
- Alternative Route
- Link Node
- Segment Line

General Reference

- City or Town
- 500-kV Transmission Line
- 345-kV Transmission Line
- 230-kV Transmission Line
- 138-kV Transmission Line
- 69- to 115-kV Transmission Line
- Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- Lake or Reservoir
- State Boundary
- County Boundary
- Oregon National Historic Trail Congressionally Designated Alignment

SOURCES:
Ecoregions, EPA 2010; Cities and Towns, ESRI 2013;
Transmission Lines, Bonneville Power Administration 2009, Idaho Power Company 2007, Logan Simpson Design 2011, Ventyx 2012; Pipelines, ESRI 2012;
Railroads, Idaho DOT 2006, Oregon DOT 2014; Highways, ESRI 2013;
Waterbodies, ESRI 2013; State and County Boundaries, ESRI 2013;
Oregon National Historic Trail Congressionally Designated Alignment, BLM 2015

NOTES:
- The alternative routes shown on this map are draft and may be revised or refined throughout the development of the project.
- Substation symbols do not necessarily represent precise locations.
- The B2H Project area boundary is defined by buffering the alternative route centerlines.
- Each alternative route is composed of links, which are discrete sections of the route sharing common endpoints determined by the point of intersection with other adjacent links; the common endpoint is referred to as a link node. Links generally are numbered from north to south. Similarly, a segment is composed of alternative routes that share common endpoints determined by the point of intersection with other adjacent alternative routes; the common endpoint is referred to as a segment node.
- No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Alternative routes last revised: February 18, 2016
Final EIS: November 2016

0 5 10 20 30 40
Miles
1:1,393,920 or 1 inch = 22 miles

This page intentionally left blank.

VISUAL ENVIRONMENT

Land-use patterns within the study corridor are influenced by the distribution of land ownership. The portions of Morrow and Umatilla counties that are within the study corridor are almost exclusively under private ownership. Union County is predominantly (about 85 percent) under private ownership, while federal lands managed by the USFS comprise most of the remaining area. Baker County also is about 70 percent under private ownership, with most of the remaining area being federal lands divided between BLM and USFS management. The portions of Malheur and Owyhee counties that are within the study corridor are nearly 80 percent federal lands under BLM management with less than one percent under Reclamation.

Principal land uses within the study corridor include rangeland in shrub/grass areas, with cultivated agriculture and forestland a distant second and third, respectively. Relatively small portions of the alternative alignments cross vacant areas (including disturbed and extractive mining areas), developed areas (including commercial, residential, recreation, and existing infrastructure), and open water areas. Notable built features are summarized below by county.

Morrow County

The predominant land uses in western Morrow County are dryland and irrigated farming, as well as rangeland. Several utility uses also are present, including the Boardman Coal-fired Generating Plant with its 656-foot-high stack, existing transmission lines (e.g., the Boardman to Slatt 500-kV line), and extensive wind energy development near the small community of Cecil. The Proposed Action also passes along the western and southern boundary of the Boardman Grasslands Conservation Area, designated by Oregon and managed by The Nature Conservancy. The Proposed Action parallels the southern boundary of the Boardman Bombing Range. The Navy currently manages the Boardman Bombing Range as an active training range. Oregon owns and leases a large portion of Morrow County to the Boeing Agri-Industrial Company, whose future plans include developing the entire leased area into irrigated farmland. Boardman, which is located on the southern edge of the Columbia River, is the only incorporated city in Morrow County that falls within the study corridor. Recognized farming communities within or immediately adjacent to the study corridor include Cecil, Ella, and Alpine. Major highways within the study corridor include I-84, U.S. Highways 30 and 730, and State Highways 74 and 207.

Umatilla County

The Proposed Action crosses privately owned land in Umatilla County for approximately 49 miles. In the western part of the county, generally west of the incorporated city of Pilot Rock and U.S. Route 395, existing land use primarily consists of dryland farming. East of U.S. Route 395 and Pilot Rock, the Applicant’s Proposed Action Alternative progresses through rangeland and the forested land in the foothills of the Blue Mountains near the Old Union Pacific Railroad station at Meacham in the eastern portion of the county. In addition to the unincorporated rural communities of Vinson, McKay, and Sparks, there are a number of scattered residences, cabins, and recreation facilities located within the

study corridor. The transportation network within the study corridor in Umatilla County includes I-84, U.S. Highways 395 and 30, and Highway 74.

Union County

Predominant land uses within Union County include irrigated agriculture and dryland farming, ranchland, and forested lands. The Wallowa-Whitman National Forest lands support a wide range of recreation activities and numerous developed recreation facilities. Most of the Wallowa-Whitman National Forest portion is within a designated utility corridor, where the Proposed Action also is parallel to I-84, a railway, a 230-kV electric transmission line, a petroleum products pipeline, and two large natural gas pipelines. In addition to I-84 and U.S. Highway 30, State Highways 12, 203, and 244 form the major transportation network within Union County. The Blue Mountain Scenic Byway and Hilgard Junction State Park also are located in this portion of the study corridor within Union County. In the central portion of the county, an extensive area of developed land uses in and near the City of La Grande is located to the east and north of the Proposed Action. Unincorporated communities within the study corridor in Union County include Hilgard, Kamel, Medical Springs, Perry, Pondosa, and Teleocaset.

In the southern portion of the county, the Proposed Action generally runs parallel to an existing Idaho Power Company 230-kV line crossing mostly rangeland to the Union County/Baker County line. The city of North Powder is located on the Powder River near the county line within the study corridor. There are a number of center pivot irrigation systems and farms in this portion of the county but not any substantial areas of more intensive development other than North Powder. The Elkhorn Valley Wind Farm is located near the Proposed Action in the southern portion of Union County.

Baker County

The study corridor within Baker County includes several areas where intensive agricultural use occurs. Land use in the county is dominated by agriculture, rangeland, and forested areas. Baker and Durkee valleys, located north and south of Baker City, respectively, are both intensively farmed areas in the county. Baker City is the county seat and the largest city within the county. Huntington, Haines, and Richland are three other incorporated municipalities within the study corridor in Baker County. The unincorporated communities within the study corridor in Baker County include Dixie, Durkee, Lime, New Bridge, Pleasant Valley, and Weatherby. In addition to I-84 and U.S. Highway 30, State Highways 7, 86, and 203 form the major transportation network within Baker County. Near Huntington, in the southeastern corner of Baker County, the Proposed Action leaves the general I-84 corridor and proceeds southwest through an area of steep topography and rangeland to the Baker/Malheur County line.

Proposed alternative alignments within this area are spread widely across the landscape. These lands vary greatly in ownership/management and use, and range from Wallowa-Whitman National Forest lands that are primarily forested (with some rangeland), to private and BLM-administered lands that primarily consist of rangeland and occasional dry or irrigated agricultural lands.

Malheur County

Although most of the land use within the study corridor in Malheur County is rangeland with little or no development, typical rural land uses, such as single-family residences and farmland, also occur in a scattered pattern. Vale is the county seat, and Ontario is the largest city within the county. Adrian is the only incorporated municipality within the study corridor in Malheur County. The unincorporated communities within the study corridor in Malheur County include Brogan, Owyhee, and Willow Creek.

There also are several areas of mining use or gravel pits. The study corridor includes several infrastructure facilities, including I-84, U.S. Highways 20, 26, and 30, State Highway 201, the Union Pacific Railroad, and several existing transmission lines of varying size.

Southwest of the community of Adrian, the Proposed Action passes near the entrance of the Owyhee River Canyon. Other lands within the canyon are managed by Reclamation as part of the Owyhee Irrigation Project, completed in 1939 to furnish irrigation water to more than 105,000 acres of land in southeastern Oregon and southwestern Idaho. The irrigation project included Owyhee Dam and Reservoir, a long, narrow reservoir with about 150 miles of shoreline that experiences heavy recreational use. Upstream of the reservoir, the Owyhee River is designated as a WSR, and the Owyhee Dam is listed on the NRHP. The BLM, Reclamation, Oregon, the county, and other agencies cooperatively manage and protect the resource values and recreation opportunities within the river canyon.

Owyhee County

The vast majority of land use within the study corridor is a mixture of rangeland, former mining and gravel pit operations, and irrigated agricultural fields. The largest community within the study corridor is Givens Hot Springs, located along the Snake River. Homedale and Marsing are Owyhee County cities that are just outside of the study corridor. The land surrounding the Hemingway Substation is mostly agricultural, with some single-family residential development present. Some areas with special land-managing designations are located in the vicinity of the Proposed Action in Owyhee County. These include BLM designations for the Jump Creek Canyon ACEC/SRMA, the Squaw Creek ACEC and Research Natural Area, and the Wilson Creek and Hemingway Butte recreation sites. The major transportation network within the study corridor includes U.S. Highway 95 and State Highways 19 and 78.

OVERVIEW OF EXISTING VISUAL RESOURCES BY SEGMENT

- 7 of scenic quality C (BA-001 Columbia River Valley, BA-003 Longhorn, BA-004 Butter Creek, BA-005 Matlock, BA-006 Coombs, BA-007 McKay, and BA-008 Spring Hollow)
- 4 of scenic quality B (BA-009 Blue Mountains Rocky Ridge, BA-011 Blue Mountains Forest, BA-031 Umatilla River, and BR-001 Columbia River Valley)
- 1 of scenic quality A (BA-018 Grand Ronde River)

Segment 1—Morrow-Umatilla

Segment 1 is located in Morrow, Umatilla, and Union counties in Oregon. Most of the northern portion of Segment 1 is located through relatively flat agricultural lands and on the southern end crosses through portions of steep, rolling flat-topped Blue Mountains. Vegetation in these portions of the Blue Mountains is composed of moderately dense evergreen forest with random open pockets of sage steppe. The study area includes portions of the McKay Creek and the Umatilla River and existing development includes rural development and large transmission lines. This area is dominated by Class C landscapes. There are also a number of viewers within Segment 1, including identified Sensitive Viewing Platforms, residences, and incorporated communities such as Boardman, Houghton, Hermiston, Stanfield, Echo, Pilot Rock, and Pendleton, Oregon. Sensitive Viewing Platforms within this segment include platforms related to recreation, residences, and general travel routes. These platforms are as follows (additional details related to each VAU can be found in the VAU table in Appendix H):

- 6 related to Recreation (2-16 Lindsay Prairie Preserve, 2-17 Boardman Research Natural Area – Bombing Range Road, 2-18 Boardman Conservation Area- Tower Road south, 3-3 Blue Mountain State Scenic Corridor, 3-20 McKay Creek NWR – Boat Launch, and 3-21 McKay Creek NWR – Spring Creek Road)
- 3 related to Residences (2-20 Butter Creek Junction, 2-23 Wilson Lane Southeast, and 3-12 Pilot Rock Community)
- 6 related to Travel Routes (Interstate 82, Interstate 84, State Highway 244, State Highway 74, State Highway 207, and U.S. Highway 395)

Segment 2—Blue Mountains

Segment 2 is located within Union and Baker counties in Oregon, and is located entirely within the Blue Mountains Ecoregion. The northwestern portion of this Segment is located within the steep, rolling, flat-topped Blue Mountains, and the study area extends south and east through the mountains and across the Grand Ronde River. Vegetation within these portions of the Blue Mountains is composed of moderately dense evergreen forest with random open pockets of sage steppe. To the South of La Grande, Oregon, the study area continues to extend to the southeast, descending out of the Blue Mountains into rolling sage steppe hills and flat agricultural valleys to a point near Thief Valley Reservoir. Existing development within the area includes 230-kV transmission lines, a small wind farm near Thief Valley Reservoir, rural agriculture and ranching development, and urban development associated with nearby communities. Segment 2 is dominated by B quality landscapes, followed by a lesser amount of C quality landscapes, and a small amount of scenic quality A landscapes. The scenic quality ratings of the VAUs are as follows (additional details related to each VAU can be found in the VAU table within Appendix H):

- 2 of scenic quality C (BA-012 Grand Ronde Valley and BA-015 Baker Valley)
- 4 of scenic quality B (BA-011 Blue Mountains Forest, BA-013 Wallowa Mountains, BA-014 Blue and Wallowa Foothills, and BA-016 Pyles Canyon and Thief Valley)
- 1 of scenic quality A (BA-018 Grand Ronde River)

There are also a number of viewers within Segment 2, including identified Sensitive Viewing Platforms, residences, and incorporated communities such as La Grande and North Powder. Sensitive Viewing Platforms within this Segment include platforms related to recreation, residences, and general travel routes. These platforms are as follows:

- 11 related to Recreation (3-24 Meacham Divide Nordic Skiing Area, 4-3 Bird Track Springs USFS Campground, 4-4 Blue Mountain Crossing Sno-Park, 4-5 Blue Mountain Forest State Scenic Corridor - Old Emigrant Hill Scenic Frontage Rd, 4-6 Blue Mountain Forest State Scenic Corridor - Summit Rd (Exit 243), 4-17 Grande Tour Oregon Tour Route – Thief Valley Reservoir, 4-19 Hilgard Junction State Park, 4-26 Ladd Marsh Wildlife Area – Foothill Road 4-28 Morgan Lake Park, 4-33 Blue Mountain Forest Double Parking Lot, 4-40 Spring Creek USFS Campground)
- 4 related to Residences (3-40 Community of Echo, 3-41 City of Pendleton, 4-51 La Grande, and 4-55 Elk Song Ranch)
- 3 related to Travel Routes (Interstate 84, State Highway 203, and State Highway 244)

Segment 3—Baker Valley

Segment 3 is located within Union and Baker counties in Oregon, and is located entirely within the Blue Mountains Ecoregion. This Segment begins near Thief Valley Reservoir, and includes a broad area that varies in character from east to west. The eastern portion of this Segment rises in elevation from Thief Valley Reservoir through sage steppe hills into the densely forested incised drainages and steeply rolling Wallowa Mountains. To the south, the character of the eastern portion of the Segment transitions back to steeply rolling sage steppe hills with occasional flat agricultural valleys. Existing development in the eastern portion of Segment 3 is limited, but includes a small wind farm near Thief Valley Reservoir, a 230-kV transmission line crossing to the north of Eagle Valley, and rural development associated with Eagle Valley. The western portion of the Segment is dominated by softly rolling hills, steeply rolling mountains, and incised drainages that are generally covered by sage steppe vegetation. Flat agricultural valleys are also present within this area. Existing development within the western portion of this Segment include 69-kV, 138-kV, and 230-kV transmission lines, as well as rural development, and urban development associated with nearby communities. This segment is dominated by both C and B quality landscapes, along with a small amount of scenic quality A landscapes. The scenic quality ratings of the VAUs are as follows (additional details related to each VAU can be found in the VAU table within Appendix H):

- 6 of scenic quality C (BA-015 Baker Valley, BA-019 Lower Powder Valley, BA-021 Virtue Flat, BA-024 Sutton Creek, BA-026 Durkee Creek, and BA-027 Caribou Bar)
- 6 of scenic quality B (BA-013 Wallowa Mountains, BA-014 Blue and Wallowa Foothills, BA-016 Pyles Canyon and Thief Valley, BA-025 Juniper and Sugarloaf Mountains, BA-022 Eagle Valley, and BA-023 Eagle Valley Foothills)
- 1 of scenic quality A (BA-010 Eagle Creek)

There are also a number of viewers within Segment 3, including identified Sensitive Viewing Platforms, residences, and incorporated communities such as North Powder, Baker City, and Richland, Oregon. Sensitive Viewing Platforms within this Segment include platforms related to recreation, residences, and general travel routes. These platforms are as follows:

- 4 related to Recreation (5-34 Powder River ACEC, 5-81 Burnt River, and 5-84 Virtue Flat OHV Area)
- 2 related to Residences (4-10 North Powder Community and 5-82 Durkee Community)
- 7 related to Travel Routes (Interstate 84, State Highway 203, Alder Creek Road, Daly Creek Road, Eagle Creek Road, Manning Creek Road, and Sparta Road)

Segment 4—Brogan

Segment 4 is located in the central portion of the study area, within Baker and Malheur counties in Oregon. This Segment is located along the transition from the Blue Mountain ecoregion to the Snake River Plain ecoregion. The Snake River is located within the northeastern portion of the Segment, bordered to the east by steeply rolling sage steppe mountains and to the west by moderately to steeply rolling sage steppe hills. To the south and west of the River, flat agricultural valleys dissect the rolling hills. Existing development within Segment 4 includes 69-kV and 138-kV transmission lines, as well as rural agricultural development within the flat valley bottoms. This segment is dominated by C quality landscapes, followed by a lesser amount of B quality landscapes, and no scenic quality A landscapes. The scenic quality ratings of the VAUs are as follows (additional details related to each VAU can be found in the VAU table within Appendix H):

- 10 of scenic quality C (BA-027 Caribou Bar, BA-031 Phipps Creek, MA-007 Cow Valley Butte, MA-009 Becker Creek, MA-012 Gum Creek, MA-013 Thorn Flat, MA-015 Juniper Mountain, MA-038 Hope Butte, MA-040 Moores Hollow, and MA-120 Alkali Flats)
- 5 of scenic quality B (BA-025 Juniper and Sugarloaf Mountains, BA-028 Brownlee Reservoir, MA-011 Crow Creek, MA-039 Treasure Valley, and MA-119 Danger Point)

There are also a number of viewers within Segment 4, including identified Sensitive Viewing Platforms, residences, and the incorporated communities of Huntington, Oregon. Sensitive Viewing Platforms within this Segment include platforms related to recreation, residences, and general travel routes. These platforms are as follows:

- 6 related to Recreation (5-13 Farewell Bend State Recreation Area, 5-59 Microwave Spring, 7-1 Weiser Dunes OHV Area, 7-6 Steck Park BLM Recreation Site. 8-5 Bully Creek Reservoir, and 8-34 South Alkali Sand Hills ACEC)
- 2 related to Residences (8-6 Brogan Community and 8-8 Jamieson Community)
- 2 related to Travel Routes (Interstate 84 and US Highway 26)

Segment 5—Malheur

Segment 5 is located entirely within Malheur County, Oregon, and is located within the Snake River Plain and Northern Basin and Range ecoregions. This Segment is characterized by moderately to steeply rolling sage steppe hills with intersecting flat agricultural valleys and incised river and creek canyons associated with Bully Creek, the Malheur River, and the Owyhee River. These canyons are generally characterized by basalt rock outcroppings and cliffs that contrast with smooth slopes covered with dense and evenly textured sage steppe vegetation. Existing development within Segment 5 is limited within the expanses of rolling sage steppe hills. Development is generally clustered within the flat valley bottoms, primarily consisting of rural agricultural development. One 69-kV transmission line and one 115-kV transmission line are located within the Segment, as well as a 500-kV transmission line that generally extends from east to west and crosses the Owyhee River Canyon. This segment is dominated by B and C quality landscapes, but also includes several scenic quality A landscapes. The scenic quality ratings of the VAUs are as follows (additional details related to each VAU can be found in the VAU table within Appendix H):

- 9 of scenic quality C (MA-012 Gum Creek, MA-015 Juniper Mountain, MA-038 Hope Butte, MA-041 Sourdough Basin, MA-058 Hoodoo Ridge, MA-074 Board Coral, MA-075 North Alkali, MA-077 Antelope Springs, OW-001 Owyhee Mountains)
- 7 of scenic quality B (MA-039 Treasure Valley, MA-044 Westfall/Harper Valley, MA-060 Owyhee Tunnel, MA-119 Danger Point, MA-121 Big sage Flat, OW-019 Treasure Valley, and MA-059 Grassy Mountain)
- 3 of scenic quality A (MA-073 Iron Mountain, MA-078 Succor Creek and MA-122 Owyhee River)

There are also a number of viewers within Segment 5, including identified Sensitive Viewing Platforms, several residences, and the incorporated community of Adrian, Oregon. Sensitive Viewing Platforms within this Segment include platforms related to recreation, residences, and general travel routes. These platforms are as follows:

- 13 related to Recreation (8-51 Big Bend Access Site, 8-52 Lower Owyhee Interpretive Site, 8-74 McIntyre Ridge– Succor Creek Road, 8-75 Antelope Creek, 8-84 Burnt Mountain (Old Mormon Hand Cart Trail), 8-85 Sourdough Mountain– Twin Springs Road, 8-88 Broken Rim– Hoo Doo Road North, 8-90 Double Mountain– Rock Canyon Road, 8-91 Double Mountain– Twin Springs Road, 8-93 Double Mountain– Negro Rock Creek Middle, 8-94 Double Mountain– Negro Rock Creek South, 8-95 Lower Owyhee River Site H2, and 8-96 Lower Owyhee River Site H1)
- 1 related to Residences (8-102 Succor Creek Rural Area)
- 2 related to Travel Routes (US Highway 20, and Mitchell Butte Road)

Segment 6—Treasure Valley

Segment 6 is located at the southern extent of the study area, within Malheur County, Oregon and Owyhee County in Idaho. This Segment is located along the transition between the Snake River Plain and Northern Basin and Range ecoregions. The Snake River runs along the length of the northeastern portion of the Segment, within a flat to moderately rolling agricultural valley. The southeastern portion of

the Segment is characterized by steeply rolling sage steppe hills and mountains of the Owyhee Mountain formation. This area is intersected by a number of incised canyons associated with Succor Creek, Sage Creek, Poison Creek, Jump Creek, Squaw Creek, Hardtrigger Creek, and Reynolds Creek. These canyons are generally characterized by basalt rock outcroppings and cliffs that contrast with smooth slopes covered with dense and evenly textured sage steppe vegetation. Existing development within Segment 6 is limited within the expanses of rolling sage steppe hills. Development is generally clustered within the flat to rolling valley bottom and primarily consists of rural agricultural development. Several 69-kV and 230-kV transmission lines are located within the Segment, as well as a 500-kV transmission line that runs along the edge of the agricultural valley at the base of the Owyhee Mountains. This segment is dominated by C quality landscapes, followed by a slightly lesser amount of B quality landscapes, and several scenic quality A landscapes. The scenic quality ratings of the VAUs are as follows (additional details related to each VAU can be found in the VAU Description Table in Appendix H):

- 5 of scenic quality C (MA-074 Board Coral, MA-077 Antelope Springs, OW-001 Owyhee Mountains, OW-005 Squaw Creek, and OW-006 Willow Spring)
- 5 of scenic quality B (MA-039 Treasure Valley, MA-060 Owyhee Tunnel, MA-075 North Alkali, OW-008 Reynolds Creek, and OW-019 Treasure Valley)
- 3 of scenic quality A (MA-078 Succor Creek, OW-007 Salmon Butte, and OW-020 Jump Creek)

There are also a number of viewers within Segment 6, including identified Sensitive Viewing Platforms, and several residences. Sensitive Viewing Platforms within this Segment include platforms related to recreation, residences, and general travel routes. These platforms are as follows:

- 12 related to Recreation (10-12 Trappers Flat Snake River Access Site, 10-17 Snake River Overlook - Pump Road, 10-19 Map Rock Snake River Access Site, 12-4 Givens Hot Springs Campground, 12-5 Hemingway Butte OHV Recreation Area, 12-8 Jump Creek Canyon ACEC, 12-17 Squaw Creek Canyon Entrance, 12-18 Squaw Creek Research Natural Area, 12-21 Wilson Creek Trailhead, 12-22 Wilson Creek Wayside, and 12-23 Eastern Terminus - Wilson Cemeter)
- 3 related to Residences (12-13 China Ditch Road Rural Residential Area, 12-27 Poison Creek Rural Area, and 12-28 Jump Creek Rural Area)

There are no travel routes associated with Segment 6.

Visual Resource Inventory and Management Components by Segment

The following tables (Table 3-404 through Table 3-412) provide a comparison of the amount of pertinent BLM and USFS visual inventory and visual management components crossed by the Project. The tables are organized by Segment and include each alternative and option within the segments, respectively. Note that there are no USFS lands crossed within Segments 4 to 6 and, therefore, there are no associated tables representing these segments.

Table 3-404. Visual Resource Inventory and Management Components by the Bureau of Land Management Field Office for Segment 1—Morrow-Umatilla (miles crossed)

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office			Visual Resource Management Class			Scenic Quality Class			Sensitivity Level		
		Baker (Oregon)	Malheur (Oregon)	Owyhee (Idaho)	II	III	IV	A	B	C	High	Moderate	Low
Applicant's Proposed Action	91.9	91.9	0.0	0.0	0.0	0.0	0.2	0.0	0.0	91.9	9.2	82.7	0.0
Variation S1-B1	*6.4*	*6.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*6.4*	*5.4*	*1.0*	*0.0*
Variation S1-B2	*6.4*	*6.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*6.4*	*6.0*	*0.4*	*0.0*
East of Bombing Range Road	92.3	92.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	92.2	9.2	83.0	0.0
Applicant's Proposed Action – Southern Route	99.1	99.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	99.1	9.2	89.9	0.0
West of Bombing Range Road – Southern Route	95.6	95.6	0.0	0.0	0.0	0.0	0.3	0.0	0.0	95.6	8.5	87.1	0.0
Longhorn	88.2	88.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	88.2	15.3	73.1	0.0
Interstate 84	84.7	84.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	84.7	25.2	59.5	0.0
Variation S1-A1	*18.5*	*18.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*18.5*	*0.0*	*18.5*	*0.0*
Variation S1-A2	*18.5*	*18.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.0*	*18.5*	*0.0*	*18.5*	*0.0*
Interstate 84 – Southern Route	93.4	93.4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	93.4	25.2	68.2	0.0

Table 3-405. Visual Resource Inventory and Management Components by Bureau of Land Management Field Office for Segment 2—Blue Mountains (miles crossed)

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office			Visual Resource Management Class			Scenic Quality Class			Sensitivity Level		
		Baker (Oregon)	Malheur (Oregon)	Owyhee (Idaho)	II	III	IV	A	B	C	High	Moderate	Low
Applicant's Proposed Action	33.8	33.6	0.0	0.0	0.0	0.0	0.8	0.0	15.1	18.5	16.8	16.8	0.0
Variation S2-A1	*2.8*	*2.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.8*	*0.0*	*2.8*	*0.0*
Variation S2-A2	*2.9*	*2.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.9*	*0.0*	*2.9*	*0.0*
Variation S2-B1	*3.7*	*3.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.8*	*0.0*	*0.0*	*3.6*	*1.4*	*2.2*	*0.0*
Variation S2-B2	*3.8*	*3.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*3.8*	*1.0*	*2.8*	*0.0*
Variation S2-C1	*9.3*	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*9.2*	*0.1*	*9.2*	*0.0*
Variation S2-C2	*8.8*	*8.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*8.8*	*0.0*	*8.8*	*0.0*
Variation S2-E1	*2.3*	*2.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.3*	*0.0*	*2.3*	*0.0*	*0.0*
Variation S2-E2	*2.6*	*2.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*2.6*	*0.0*	*2.6*	*0.0*	*0.0*
Variation S2-F1	*12.1*	*12.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*12.1*	*0.0*	*12.1*	*0.0*	*0.0*
Variation S2-F2	*12.2*	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*0.0*
Glass Hill	33.7	33.6	0.0	0.0	0.0	0.0	0.5	0.0	15.1	18.5	17.4	16.1	0.0
Variation S2-D1	*4.3*	*4.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*4.3*	*0.0*	*4.3*	*0.0*
Variation S2-D2	*4.1*	*4.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*4.1*	*0.0*	*4.1*	*0.0*
Mill Creek	34.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	14.2	19.9	15.7	18.3	0.0

Table 3-406. Visual Resource Inventory and Management Components by Bureau of Land Management Field Office for Segment 3—Baker Valley (miles crossed)

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office			Visual Resource Management Class			Scenic Quality Class			Sensitivity Level		
		Baker (Oregon)	Malheur (Oregon)	Owyhee (Idaho)	II	III	IV	A	B	C	High	Moderate	Low
Applicant's Proposed Action	55.2	55.0	0.0	0.0	0.0	0.0	12.3	0.0	27.0	28.0	55.0	0.0	0.0
Variation S3-A1	*12.4*	*12.3*	*0.0*	*0.0*	*0.0*	*0.0*	*1.3*	*0.0*	*12.3*	*0.0*	*12.3*	*0.0*	*0.0*
Variation S3-A2	*12.2*	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*	*0.0*	*12.2*	*0.0*	*12.2*	*0.0*	*0.0*
Variation S3-B1	*13.9*	*13.9*	*0.0*	*0.0*	*0.0*	*1.3*	*4.1*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*0.0*
Variation S3-B2	*14.4*	*14.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*14.4*	*0.0*	*14.4*	*0.0*	*0.0*
Variation S3-B3	*14.7*	*14.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*14.7*	*0.0*	*14.8*	*0.0*	*0.0*
Variation S3-B4	*14.3*	*14.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*14.2*	*0.0*	*14.2*	*0.0*	*0.0*
Variation S3-B5	*14.0*	*13.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*13.9*	*0.0*	*13.9*	*0.0*	*0.0*
Variation S3-C1	*21.1*	*21.1*	*0.0*	*0.0*	*0.0*	*5.2*	*6.1*	*0.0*	*0.0*	*21.1*	*21.1*	*0.0*	*0.0*
Variation S3-C2	*21.7*	*21.7*	*0.0*	*0.0*	*0.0*	*3.9*	*4.5*	*0.0*	*0.0*	*21.7*	*21.7*	*0.0*	*0.0*
Variation S3-C3	*21.1*	*21.1*	*0.0*	*0.0*	*0.0*	*0.9*	*5.3*	*0.0*	*4.6*	*16.5*	*21.0*	*0.0*	*0.0*
Variation S3-C4	*21.4*	*21.3*	*0.0*	*0.0*	*0.7*	*0.0*	*5.1*	*0.0*	*4.8*	*16.5*	*21.3*	*0.0*	*0.0*
Variation S3-C5	*21.0*	*21.0*	*0.0*	*0.0*	*1.3*	*0.0*	*5.8*	*0.0*	*6.7*	*14.3*	*21.0*	*0.0*	*0.0*
Variation S3-C6	*24.7*	*24.7*	*0.0*	*0.0*	*2.8*	*0.0*	*6.2*	*0.0*	*6.0*	*18.8*	*24.7*	*0.0*	*0.0*
Flagstaff A	55.3	55.0	0.0	0.0	0.0	1.3	8.3	0.0	27.0	28.0	55.0	0.0	0.0
Timber Canyon	70.3	70.2	0.0	0.0	5.0	0.2	3.1	0.0	43.4	26.8	59.8	0.0	0.0
Flagstaff A – Burnt River Mountain	55.3	54.9	0.0	0.0	0.0	0.9	17.3	0.0	31.5	23.4	54.9	10.4	0.0
Flagstaff B	56.0	55.9	0.0	0.0	0.0	1.3	8.1	0.0	27.9	28.0	55.9	0.0	0.0
Flagstaff B – Burnt River West	55.7	55.7	0.0	0.0	1.3	0.0	6.9	0.0	34.4	21.2	55.7	0.0	0.0
Flagstaff B – Durkee	59.6	59.6	0.0	0.0	2.8	0.0	8.1	0.0	33.9	25.7	59.6	0.0	0.0

Table 3-407. Visual Resource Inventory and Management Components by Bureau of Land Management Field Office for Segment 4—Brogan (miles crossed)

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office			Visual Resource Management Class			Scenic Quality Class			Sensitivity Level		
		Baker (Oregon)	Malheur (Oregon)	Owyhee (Idaho)	II	III	IV	A	B	C	High	Moderate	Low
Applicant's Proposed Action	40.1	12.9	27.4	0.0	0.0	0.0	20.1	0.0	0.5	39.8	9.2	18.2	12.9
Variation S4-A1	*5.9*	*5.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.7*	*0.0*	*0.0*	*5.9*	*5.9*	*0.0*	*0.0*
Variation S4-A2	*6.0*	*5.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.7*	*0.0*	*0.0*	*5.9*	*5.9*	*0.0*	*0.0*
Variation S4-A3	*6.1*	*6.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.8*	*0.0*	*0.0*	*6.0*	*6.0*	*0.0*	*0.0*
Tub Mountain South	40.5	11.5	29.0	0.0	0.0	7.1	18.7	0.0	3.8	36.7	8.1	17.4	14.9
Willow Creek	34.6	11.8	22.9	0.0	0.0	0.8	14.3	0.0	3.0	31.7	8.3	11.5	14.9

Table 3-408. Visual Resource Inventory and Management Components by Bureau of Land Management Field Office for Segment 5—Malheur (miles crossed)

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office			Visual Resource Management Class			Scenic Quality Class			Sensitivity Level		
		Baker (Oregon)	Malheur (Oregon)	Owyhee (Idaho)	II	III	IV	A	B	C	High	Moderate	Low
Applicant's Proposed Action	40.4	0.0	40.4	0.0	1.5	4.6	24.1	0.0	10.1	30.3	0.8	30.1	9.5
Variation S5-A1	*7.4*	*0.0*	*7.4*	*0.0*	*0.0*	*0.0*	*1.1*	*0.0*	*0.0*	*7.4*	*0.0*	*6.3*	*1.1*
Variation S5-A2	*7.4*	*0.0*	*7.4*	*0.0*	*0.0*	*0.0*	*7.3*	*0.0*	*0.0*	*7.4*	*0.0*	*6.5*	*0.9*
Variation S5-B1	*2.5*	*0.0*	*2.5*	*0.0*	*1.1*	*0.2*	*0.8*	*0.0*	*2.6*	*0.0*	*0.5*	*2.1*	*0.0*
Variation S5-B2	*2.8*	*0.0*	*2.8*	*0.0*	*0.1*	*0.5*	*0.0*	*0.0*	*2.8*	*0.0*	*0.2*	*2.5*	*0.0*
Malheur S	43.5	0.0	43.5	0.0	1.8	4.1	33.1	1.6	10.7	31.2	4.5	34.9	4.1
Malheur A	43.1	0.0	43.1	0.0	2.3	4.1	31.4	2.0	9.4	31.7	4.5	34.4	4.1

Table 3-409. Visual Resource Inventory and Management Components by Bureau of Land Management Field Office for Segment 6—Treasure Valley (miles crossed)

Alternative Route	Total Length (miles)	Bureau of Land Management Field Office			Visual Resource Management Class			Scenic Quality Class			Sensitivity Level		
		Baker (Oregon)	Malheur (Oregon)	Owyhee (Idaho)	II	III	IV	A	B	C	High	Moderate	Low
Applicant's Proposed Action	28.0	0.0	4.1	23.8	0.0	3.0	18.3	0.5	0.5	26.9	0.0	21.4	6.6
Variation S6-A1	*9.3*	*0.0*	*2.6*	*6.7*	*0.0*	*1.3*	*6.8*	*0.0*	*0.0*	*9.3*	*0.0*	*9.3*	*0.0*
Variation S6-A2	*8.9*	*0.0*	*2.2*	*6.7*	*0.0*	*0.2*	*5.6*	*0.0*	*0.0*	*8.9*	*0.0*	*8.9*	*0.0*
Variation S6-B1	*14.4*	*0.0*	*0.0*	*14.4*	*0.0*	*1.6*	*8.9*	*0.0*	*0.1*	*14.3*	*0.0*	*7.8*	*6.6*
Variation S6-B2	*14.1*	*0.0*	*0.0*	*14.1*	*0.0*	*2.1*	*8.1*	*0.2*	*0.0*	*13.9*	*0.2*	*9.3*	*4.6*

Table 3-410. Visual Resource Inventory and Management Components in the Wallowa-Whitman National Forest for Segment 1—Morrow-Umatilla

Alternative Route	Total Length (miles)	Wallowa-Whitman National Forest	Visual Quality Objective				Variety Class			Level of Sensitivity		
			Retention	Partial Retention	Modification	Maximum Modification	A	B	C	1	2	3
Applicant's Proposed Action	91.9	4.4	0.4	3.6	0.4	0.0	0.0	0.4	0.0	3.5	0.5	0.4
Variation S1-B1	*6.4*	*4.4*	*0.4*	*3.6*	*0.4*	*0.0*	*0.0*	*0.4*	*0.0*	*3.5*	*0.5*	*0.4*
Variation S1-B2	*6.4*	*0.0*	*3.6*	*<0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*3.5*	*<0.1*	*0.0*
East of Bombing Range Road	92.3	4.4	0.4	3.6	0.4	0.0	0.0	0.4	0.0	3.5	0.5	0.4
Applicant's Proposed Action – Southern Route	99.1	4.4	0.4	3.6	0.4	0.0	0.0	0.4	0.0	3.5	0.5	0.4
West of Bombing Range Road – Southern Route	95.6	4.4	0.4	3.6	0.4	0.0	0.0	0.4	0.0	3.5	0.5	0.4
Longhorn	88.2	4.4	0.4	3.6	0.4	0.0	0.0	0.4	0.0	3.5	0.5	0.4
Interstate 84	84.7	4.4	0.4	3.6	0.4	0.0	0.0	0.4	0.0	3.5	0.5	0.4
Variation S1-A1	*18.5*	*4.4*	*0.4*	*3.6*	*0.4*	*0.0*	*0.0*	*0.4*	*0.0*	*3.5*	*0.5*	*0.4*
Variation S1-A2	*18.5*	*4.4*	*0.4*	*3.6*	*0.4*	*0.0*	*0.0*	*0.4*	*0.0*	*3.5*	*0.5*	*0.4*
Interstate 84 – Southern Route	93.4	4.4	0.4	3.6	0.4	0.0	0.0	0.4	0.0	3.5	0.5	0.4

Table 3-411. Visual Resource Inventory and Management Components in the Wallowa-Whitman National Forest for Segment 2—Blue Mountains

Alternative Route	Total Length (miles)	Wallowa-Whitman National Forest	Visual Quality Objective				Variety Class			Level of Sensitivity		
			Retention	Partial Retention	Modification	Maximum Modification	A	B	C	1	2	3
Applicant's Proposed Action	33.8	1.3	0.7	0.6	0.0	0.0	0.0	0.0	0.0	1.3	<0.1	0.0
Variation S2-A1	*2.8*	*1.3*	*0.7*	*0.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.3*	*<0.1*	*0.0*
Variation S2-A2	*2.9*	*2.6*	*0.0*	*2.3*	*0.3*	*0.0*	*0.0*	*0.3*	*0.0*	*2.2*	*<0.1*	*0.3*
Variation S2-B1	*3.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-B2	*3.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-C1	*9.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-C2	*8.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-E1	*2.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-E2	*2.6*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-F1	*12.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-F2	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Glass Hill	33.7	1.3	0.7	0.6	0.0	0.0	0.0	0.0	0.0	1.3	<0.1	0.0
Variation S2-D1	*4.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S2-D2	*4.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Mill Creek	34.0	2.6	0.0	2.3	0.3	0.0	0.0	0.3	0.0	2.3	<0.1	0.3

Table 3-412. Visual Resource Inventory and Management Components in the Wallowa-Whitman National Forest for Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Wallowa-Whitman National Forest	Visual Quality Objective				Variety Class			Level of Sensitivity		
			Retention	Partial Retention	Modification	Maximum Modification	A	B	C	1	2	3
Applicant's Proposed Action	55.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variation S3-A1	*12.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-A2	*12.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-B1	*13.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-B2	*14.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-B3	*14.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-B4	*14.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-B5	*14.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-C1	*21.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*

Table 3-412. Visual Resource Inventory and Management Components in the Wallowa-Whitman National Forest for Segment 3—Baker Valley												
Alternative Route	Total Length (miles)	Wallowa-Whitman National Forest	Visual Quality Objective				Variety Class			Level of Sensitivity		
			Retention	Partial Retention	Modification	Maximum Modification	A	B	C	1	2	3
Variation S3-C2	*21.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-C3	*21.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-C4	*21.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-C5	*21.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Variation S3-C6	*24.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Flagstaff A	55.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Timber Canyon	70.3	22.2	0.4	3.5	14.1	4.2	0.0	16.6	0.4	2.5	2.7	17.0
Flagstaff A – Burnt River Mountain	55.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flagstaff B	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flagstaff B – Burnt River West	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flagstaff B – Durkee	59.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3.2.12.6 Environmental Consequences (Results of Analysis)

Types of Potential Effects

Potential effects on visual resources are described in terms of impacts on landscape character/scenic quality, stationary viewing platforms, linear viewing platforms, and SMAs. Each of these effect types are further described below.

Landscape Character and Scenic Quality

The existing landscape within the study corridor is considered to have inherent characteristics, or landscape character, as well as varying degrees of scenic quality. Landscape character is defined as the physical characteristics of the landscape, while scenic quality is an evaluation or rating that reflects the scenic value of the landscape based on its physical characteristics. The B2H Project could have potential effects on the landscape character as a resource, and these effects also could affect the scenic quality and rating of the landscapes within the study corridor.

The existing landscape character was described for the study corridor by delineating VAUs (MV-22). Where available, these project-level units were based on the BLM VRI SQRUs, taking into account USFS landscape character units to the degree possible for USFS lands. With the exception of the area within the Baker Field Office, VAUs were delineated using the existing SQRU delineations from the BLM VRI completed in 2013 for the Owyhee and Malheur Field Offices. For the Baker Field Office, the VAUs were delineated using the same approach that was used for the Owyhee and Malheur Field

Offices but do not follow the numbering system specific to the Baker Field Office VRI. The VAU/SQRU delineations are based on areas with common landform patterns and features, vegetation communities and patterns, built features, land-use patterns, scarcity, and/or surface-water resources.

The VAUs, as described in the VAU Description Table in Appendix H, define the existing visual character and condition of the study corridor. Each VAU includes a unique identifier that includes two letters and three numbers. The letters refer to the BLM field office in which the unit lies, while the numbers correspond to the BLM VRI SQRU numbers (except for the Baker Field Office as noted above). The VAUs are grouped by BLM field office and are listed in numerical order within each field office. The descriptions are separated into landform and vegetation elements and include additional information regarding the general degree of enclosure, views, land use, ownership, cultural modifications, adjacent scenery, scarcity, VRI sensitivity level, and associated Sensitive Viewing Platforms or Sensitive Viewing Platforms for reference. This information was compiled for review of the distinct elements and to provide for consistent evaluation of the landscape in the impact assessment process.

The scenic quality of the study corridor for all lands, regardless of jurisdiction or ownership, was derived either from existing BLM VRI SQRU data, or during fieldwork efforts directly related to the B2H Project. Each SQRU/VAU received a rating that relates to its inherent aesthetic value, which is based on the key factors of land form, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. The relative scenic quality (A, B, or C) is assigned to a landscape by rating the scenic quality evaluation of these key factors, based on a numerical scale. Landscapes considered to have the highest scenic value have a scenic quality rating of A; those with a rating of C are considered to be more common, less distinct landscapes (BLM 1986b).

Sensitive Viewing Platforms

The B2H Project also could affect the public's views from sensitive locations, or viewing platforms, within the study corridor. The visual sensitivity associated with these platforms reflect the public's attitude and perception regarding the landscape and, in general, the public's level of sensitivity for noticeable change to the landscape. The concept of visual sensitivity recognizes specific places, areas, and features that have visual importance relative to one's home, social, business, and recreational environment. Sensitive Viewing Platforms represent viewing locations (Sensitive Viewing Platforms) where the public would view the B2H Project both from a stationary location (e.g., scenic overlook or residential area) and a linear (e.g., scenic byway or trail) location.

Table 3-413 provides the list of stationary viewing platforms by name and number and includes the associated VAU number and name. The stationary viewing platform numbers consist of two numbers, separated by a dash. Although the numbering convention is not particularly important to the reader, the first number generally refers to the county in which the point is located, and the second number is simply an individual identification number. The second number is not always consecutive, as many viewing platforms are considered early in the process but only important platforms become part of the final analysis. In general, the stationary viewing platforms were identified through review of federal,

state, and local land-use and resource plans; land-use data available in GIS format; protected areas identified by Oregon; the federal and state public scoping process performed for the B2H Project; parks and recreation areas; presence of residential and developed areas; identification of U.S. and state highways; and consultation with federal, state, and county agencies and organizations (Tetra Tech 2012). These Sensitive Viewing Platforms, also known as KOPs, as stated in the BLM Manual 8431 – Visual Resource Contrast Rating, are selected from several viewpoints that are considered to be important observation points in the vicinity of the project. Factors for selecting KOPs include angle of observation, number of viewers, length of time the project is in view, relative project size, season of use, and light conditions. BLM Manual 8400 states that linear projects such as power lines should be rated from several viewpoints representing the most critical viewpoints (e.g., views from communities, road crossings typical views encountered in representative landscapes if not covered by critical viewpoints). Information regarding each stationary viewing platform is provided in Table 3-413, including general locations and availability of simulations from each location. While many Sensitive Viewing Platforms are chosen for general analysis purposes, some platforms have been specifically chosen by the BLM. The platforms selected by the BLM listed in Table 3-413 include a footnote next to the platform number (i.e., 5-32[1] Oregon Trail Kiwanis Club Memorial). Because compliance for both visual- and NHT-related stationary viewing platforms is considered within this section, Table 3-413 also includes information regarding both types of platforms.

Linear Sensitive Viewing Platforms include the scenic byways listed in Table 3-402, as well as interstate, U.S. highway, state route, USFS roads and sensitive local routes within the study corridor. The interstate and state routes are listed in Table 3-414 and are shown on MV-23.

Special Management Areas

The B2H Project could have potential effects on SMAs within the study corridor—either by direct crossings of the B2H Project through these areas or by the B2H Project's presence within the viewshed of the SMAs. There are four SMAs that could be affected by the B2H Project (MV-23), all of which are managed by the BLM. While there are other SMAs within the study corridor, the four listed below have scenic resources identified as qualities that were considered as part of the rationale for the designation for special management. The SMAs with scenic qualities include:

- Owyhee River Below the Dam ACEC
- Owyhee Views ACEC
- Powder River ACEC
- Wild Horse Basin WSA OR-034-118

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
Recreational Stationary Key Observation Points					
1	Oregon	2-16	Lindsay Prairie Preserve	BA-003 Longhorn	Recreational platform 2-16 is located along Little Juniper Lane adjacent to the Lindsay Prairie Preserve approximately 1.5 miles from transmission line components.
1	Oregon	2-17	Boardman Research Natural Area – Bombing Range Road	BA-003 Longhorn	Recreational platform 2-17 is located along Bombing Range Road adjacent to next to the Boardman Research Natural Area and is part of the Naval Weapons Systems Training Facility.
1	Oregon	2-18	Boardman Conservation Area-Tower Road south	BA-003 Longhorn	Platform 2-18 is located along Tower Road adjacent to the Boardman Grasslands Conservation Area approximately 0.5 mile from the Boardman Generating Plan and is part of the Naval Weapons Systems Training Facility.
1	Oregon	3-3	Blue Mountain State Scenic Corridor	BA-011 Blue Mountain Forest	Recreational platform 3-3 is located along I-84 and is more than 2.0 miles away from the nearest project component near the Umatilla National Forest.
1	Oregon	3-20	McKay Creek National Wildlife Refuge – Boat Launch	BA-007 McKay	Recreational platform 3-20 is located within the McKay Creek National Wildlife Refuge of the U.S. Fish and Wildlife Service, near the northern boundary of the study corridor.
1	Oregon	3-21	McKay Creek National Wildlife Refuge – Spring Creek Road	BA-007 McKay	Recreational platform 3-21 is located along Spring Creek Road in a predominately agricultural landscape and is near the McKay Creek National Wildlife Refuge which is a popular area that offers many recreational opportunities.
2	Oregon	3-24	Meacham Divide Nordic Skiing Area	BA-011 Blue Mountains Forest	Recreational platform 3-24 is located at the parking area for the Meacham Divide Nordic Skiing Area within a forested landscape. This is part of the Meacham Divide Nordic Area Trail System.
2	Oregon	4-3	Bird Track Springs USFS Campground	BA-018 Grand Ronde River	Recreational platform 4-3 is located at Bird Track Springs Campground within a forested landscape on USFS- administered lands.
2	Oregon	4-4	Blue Mountain Crossing Sno-Park	BA-011 Blue Mountains Forest	Recreational platform 4-4 is located at the Blue Mountain Crossing Sno-Park recreation area west of I-84 within a forested landscape on USFS-administered lands. This also is a part of the Meacham Divide Nordic Area Trail System.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
2	Oregon	4-5[2]	Blue Mountain Forest State Scenic Corridor - Old Emigrant Hill Scenic Frontage Rd	BA-011 Blue Mountains Forest	Recreational platform 4-5 is located on the Old Emigrant Hill Scenic Frontage Road and is less than 0.1 mile away from the nearest visible project component This corridor lies along the Old Oregon Trail Highway between Deadman's Pass and Spring Creek. Refer to Appendix H3 for simulation. Note: H- Frame wooden structures would be used throughout this area as a mitigation measure.
2	Oregon	4-6	Blue Mountain Forest State Scenic Corridor - Summit Rd (Exit 243)	BA-011 Blue Mountains Forest	Recreational platform 4-6 is located west of I-84 on the Old Emigrant Hill Scenic Frontage Road. Blue Mountain Crossing Sno-Park recreation area west of I-84 within a forested landscape on USFS-administered lands. This road leads to the Meacham Divide Nordic Area Trail System.
3	Oregon	4-17	Grande Tour Oregon Tour Route – Thief Valley Reservoir	BA-016 Pyles Canyon and Thief Valley	Recreational platform 4-17 is located on a parking lot overlooking Thief Valley Reservoir 1.2 miles away from the nearest visible project component. Viewer position from this platform would be inferior.
2	Oregon	4-19	Hilgard Junction State Park	BA-018 Grand Ronde River	Recreational platform 4-19 is located at the Hilgard Junction State Park adjacent to Hilgard Highway near the town of Hilgard within a mountainous and forested landscape.
2	Oregon	4-26	Ladd Marsh Wildlife Area – Foothill Road	BA-012 Grand Ronde Valley	Recreational platform 4-26 is located along Foothill Road near Ladd March Wildlife Area at the base of rolling foothills. The Ladd Marsh Wildlife Area encompasses one of the largest wetlands in Northeast Oregon.
2	Oregon	4-28	Morgan Lake Park	BA-011 Blue Mountains Forest	Recreational platform 4-28 is located at Morgan Lake Park within an open plateau area approximately 3 miles west of the town of La Grande. This picturesque landscape offers many recreational opportunities such as fishing and camping. Refer to Appendix H3 for simulation.
2	Oregon	4-33	Blue Mountain Forest Double Parking Lot	BA-011 Blue Mountains Forest	Recreational platform 4-33 is located east of I-84 at the uppermost parking lot in proximity of the Oregon Trail Interpretive Park. It is approximately 1 mile away from the Applicant's Proposed Alternative Action project component with a predominantly screened view of the project components.
2	Oregon	4-40[2]	Spring Creek USFS Campground	BA-011 Blue Mountains Forest	Recreational platform 4-40 is located at the Spring Creek Campground located within a forested landscape on USFS-administered lands west of I-84. Refer to Appendix H3 for simulation. Note: H- Frame wooden structures will be used throughout this area as a mitigation measure.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
4	Oregon	5-13	Farewell Bend State Recreation Area	BA-028 Brownlee Reservoir	Recreational platform 5-13 is located southeast of the community of Huntington along the Snake River on private land. This area provides many recreational opportunities such as boating, fishing, water skiing, camping, and picnicking. This area also has historic markers and interpretive signage on information regarding the Farewill Bend's significance on the Oregon Trail.
3	Oregon	5-34[1]	Powder River ACEC	BA-014 Blue and Wallowa Foothills	Recreational platform 5-34 possesses a scenic component associated with the Powder Wild and Scenic River designation contained within the ACEC. Visitor use in the area is less than 250 individuals per year and associated primarily with hunting activities. Visitors are generally focused on the distant panoramic views seen from the platform rather than the ACEC itself.
4	Oregon	5-59[1]	Microwave Spring	BA-025 Juniper and Sugarloaf Mountains	Recreational platform 5-59 is located within a mountainous landscape on BLM-administered. Use is generally low with less than 50 visitors per year and is predominantly local ranching activities and late season hunting.
3	Oregon	5-81[1]	Burnt River	BA-025 Juniper and Sugarloaf Mountains	Recreational platform 5-81 is located on State/private but selected as a prominent view point of BLM VRM II lands and extreme use numbers associated with interstate travel I-84 traffic through the B2H Project area (approx. 8,000 – 10,000 vehicles daily according to 2013 traffic volume data from the Oregon Department of Transportation).
3	Oregon	5-84[1]	Virtue Flat OHV Area	BA-021 Virtue Flat	Recreational platform 5-84 is located approximately 5 miles east of Baker City, Oregon on BLM-administered lands approximately 2 miles from project components. The 4,918 acre site is utilized year around by approximately 7,000-10,000 visitors annually for the purpose of concentrated motorized use as well as other general recreational pursuits.
4	Oregon	7-1	Weiser Dunes OHV Area	FR-028 Brownlee Reservoir	Recreational platform 7-1 is located within a rolling and foothill landscape adjacent to the Snake River on BLM- administered lands. These dunes provide approximately 100 acres of sand dunes to recreationist managed by the BLM Boise District Office.
4	Oregon	7-6	Steck Park BLM Recreation Site	FR-028 Brownlee Reservoir	Recreational platform 7-6 is located within an enclosed river canyon adjacent to the Snake River on private land. This area offers an access point to Brownlee Reservoir along the Snake River from the Idaho side of Hells Canyon.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
5	Oregon	8-4[1]	Board Corral Mountain	MA-075 North Alkali	Recreational platform 8-4 is located near the intersection of Succor Creek Road and Fisherman Road in an undeveloped area of eastern Malheur County, approximately 10 miles south of Adrian, Oregon. Platform 8-4 is surrounded by federal lands managed by the BLM; the lands west of the Succor Creek Road are within the Board Corral Mountain Wilderness Inventory Unit. Typical use is by people traveling through to Succor Creek Campground.
4	Oregon	8-5	Bully Creek Reservoir	MA-038 Hope Butte	Recreational platform 8-5 is located near a residential community and recreation destination on Reclamation land. This area offers many recreational opportunities such as water sports, fishing, and camping.
5	Oregon	8-18	Lake Owyhee State Park	MA-073 Iron Mountain	Recreational platform 8-18 is located near Lake Owyhee State Park along Owyhee Lake Road on Reclamation administered land. This area is great for camping, boating, and fishing. Located in a deep canyon, views offer a colorful canyon die to the volcanic rock formations.
5	Oregon	8-21[1]	McIntyre Ridge	MA-075 North Alkali	Recreational platform 8-21 is located in the Succor Creek area of eastern Malheur County, approximately 13 miles south of Adrian, Oregon and the same distance east of Lake Owyhee. The use is generally low and mostly hunters and ATV use.
5	Oregon	8-33[1]	Double Mountain–Twin Springs Road	MA-041 Sourdough Basin	Recreational platform 8-33 is located on Twin Springs Road in a largely undeveloped area of northeastern Malheur County, approximately 19 miles southwest of Vale, Oregon. The site is in a large area of contiguous federal lands managed by the BLM, and is adjacent to an area identified as the Double Mountain Wilderness Characteristics Inventory Unit. The use is low.
4	Oregon	8-34[1]	South Alkali Sand Hills ACEC	MA-040 Moores Hollow	Recreational platform 8-34 is located in a remote and undeveloped part of Malheur County approximately 6 miles northeast of Vale, Oregon. The site is near the northern edge of the South Alkali Sand Hills ACEC. Access to the site is from Alkali Gulch Road.
5	Oregon	8-51	Big Bend Access Site	MA-039 Treasure Valley	Recreational platform 8-51 is located south of the community of Adrian, Oregon along SR 201 within a rural, agricultural at the foot of sloping landforms on Oregon State-administered land.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
5	Oregon	8-52[1, 2]	Lower Owyhee Interpretive Site	BA-026 Durkee Creek	Recreational platform 8-52 is located in Owyhee Canyon at the Lower Owyhee Canyon Watchable Wildlife Area interpretive site within the Owyhee River Below the Dam SRMA along the Owyhee Lake Road, approximately 7 miles west of Adrian, Oregon. The use is moderate to high due to the restroom. Refer to Appendix H3 for simulation.
5	Oregon	8-74[1]	McIntyre Ridge– Succor Creek Road	MA-075 North Alkali	Recreational platform 8-74 is located on Succor Creek area of eastern Malheur County, approximately 14 miles south of Adrian, Oregon and the same distance east of Lake Owyhee.
5	Oregon	8-75[1]	Antelope Creek	MA-077 Antelope Springs	Recreational platform 8-75 is located in the Succor Creek area of eastern Malheur County, approximately 15 miles south of Adrian, 14 miles east of Lake Owyhee, and 1.5 mile west of the Idaho state line.
5	Oregon	8-84[1]	Burnt Mountain (Old Mormon Hand Cart Trail)	MA-122 Owyhee River	Recreational platform 8-84 is located in Owyhee Canyon, a short distance to the west of the river and approximately 1.6 miles northwest of Owyhee Dam. The use is moderate with ATV users and people accessing the reservoir.
5	Oregon	8-85[1]	Sourdough Mountain– Twin Springs Road	MA-041 Sourdough Basin	Recreational platform 8-85 is located at the intersection of Twin Springs Road and Rock Canyon Road in an undeveloped part of northern Malheur County.
5	Oregon	8-88[1]	Broken Rim– Hoo Doo Road North	MA-058 Hoodoo Ridge	Recreational platform 8-88 is located on Hoo Doo Road North in the Sand Hollow area of northeastern Malheur County, approximately 12 miles southwest of Vale, Oregon and 9 miles east of Harper, Oregon.
5	Oregon	8-90[1]	Double Mountain– Rock Canyon Road	MA-041 Sourdough Basin	Recreational platform 8-90 is located on Rock Canyon Road (also known as Negro Rock Creek Road) in an isolated part of northern Malheur County.
5	Oregon	8-91[1]	Double Mountain– Twin Springs Road	MA-041 Sourdough Basin	Recreational platform 8-91 is located on Twin Springs Road in a largely undeveloped area of northeastern Malheur County, approximately 19 miles southwest of Vale, Oregon.
5	Oregon	8-93[1]	Double Mountain– Negro Rock Creek Middle	MA-041 Sourdough Basin	Recreational platform 8-93 is located on Rock Canyon Road in an isolated part of northern Malheur County, approximately 16 miles southwest of Vale, Oregon.
5	Oregon	8-94	Double Mountain– Negro Rock Creek South	MA-041 Sourdough Basin	Recreational platform 8-94 is located on Rock Canyon Road within a remote landscape that consists of sloping landforms and valley bottoms on private land.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
5	Oregon	8-95[1]	Lower Owyhee River Site H2	MA-122 Owyhee River	Recreational platform 8-95 is located in Owyhee Canyon along Owyhee Lake Road, approximately 7 miles west of Adrian, Oregon. Platform 8-95 is located on BLM- managed lands within the Owyhee River Below the Dam ACEC. A moderately use fishing access area is the specific location of this platform.
5	Oregon	8-96[1, 2]	Lower Owyhee River Site H1	MA-122 Owyhee River	Recreational platform 8-96 is located in Owyhee Canyon along Owyhee Lake Road, approximately 7 miles west of Adrian, Oregon. Platform 8-96 is located on BLM-managed lands within the Owyhee River Below the Dam ACEC. A moderately use fishing access area is the specific location of this platform. Refer to Appendix H3 for simulation.
6	Idaho	10-12	Trappers Flat Snake River Access Site	FR-029 Snake River/Given Hot Springs	Recreational platform 10-12 is located adjacent to the Snake River within an agricultural landscape on Idaho State land.
6	Idaho	10-17	Snake River Overlook - Pump Road	FR-029 Snake River/Given Hot Springs	Recreational platform 10-17 is located adjacent to the Snake River within an agricultural landscape on private land.
6	Idaho	10-19	Map Rock Snake River Access Site	FR-029 Snake River/Given Hot Springs	Recreational platform 10-19 is located adjacent to the Snake River within an agricultural landscape on Idaho State land.
6	Idaho	12-4	Givens Hot Springs Campground	OW-019 Treasure Valley	Recreational platform 12-4 is located adjacent to the Snake River within an agricultural landscape on Idaho State land.
6	Idaho	12-5[1]	Hemingway Butte OHV Recreation Area	OW-006 Willow Spring	Recreational platform 12-5 is located within a popular motorized recreation area that receives more than 50,000 visitors annually. The use at this platform is due to the areas popularity, which is part of the Murphy Subregion Travel Management Plan area.
6	Idaho	12-8[1]	Jump Creek Canyon ACEC	OW-020 Jump Creek	Recreational platform 12-8 is located within the Jump Creek Recreation Area, which is a popular day-use recreation area that receives roughly 25,000 visitors annually. The platform is just outside of the Jump Creek Canyon ACEC. The use of this Platform is due to the areas popularity and outstanding scenic quality.
6	Idaho	12-17	Squaw Creek Canyon Entrance	OW-005 Squaw Creek	Recreational platform 12-17 is located on Summer Camp Road within a remote landscape that consists of rolling landforms on private land.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
6	Idaho	12-18[1]	Squaw Creek Research Natural Area	OW-001 Owyhee Mountains	Recreational platform 12-18 is located on BLM-administered lands along U.S Highway 95 approximately 8 miles southwest of Marsing, Idaho. BLM-administered lands in this area receive low to moderate use. The primary recreational uses in this area are hunting and OHV riding.
6	Idaho	12-21[1]	Wilson Creek Trailhead	OW-006 Willow Spring	Recreational platform 12-21 is located within a popular non-motorized recreation area (equestrian, mountain bikes, and hikers). The area receives an estimated 30,000 visitors annually and is part of the Wilson Creek Subregion Travel Management Plan area.
6	Idaho	12-22[1]	Wilson Creek Wayside	OW-006 Willow Spring	Recreational platform 12-22 is located within a popular non-motorized recreation area (equestrian, mountain bikes, and hikers). The area receives an estimated 30,000 visitors annually and is part of the Wilson Creek Subregion Travel Management Plan area.
6	Idaho	12-23[1]	Eastern Terminus - Wilson Cemetery	OW-006 Willow Spring	Recreational platform 12-23 is located on the border of BLM-administered and private land. Public uses within this area are low due to the proximity to private property. The use of this platform is predominantly associated with the private land owners within the surrounding area. This platform is located near several existing transmission lines, a power substation and a cemetery.
6	Oregon	13-1[1]	Owyhee Wild and Scenic River	MA-060 Owyhee Tunnel	Recreational platform 13-1 is located on a BLM road south of the Owyhee River overlooking this recreational corridor and is approximately 0.4 miles east from the Owyhee Below the Dam ACEC.
Residential Stationary Key Observation Points					
1	Oregon	2-20	Butter Creek Junction	BA-004 Butter Creek	Residential platform 2-20 is located along Oregon Route 207, near junction of Lexington Echo Highway, Hemiston Highway, and Butter Creek Road in a predominately agricultural landscape south of Boardman, Oregon.
1	Oregon	2-23	Wilson Lane Southeast	BA-003 Longhorn	Residential platform 2-23 is located along Wilson Lane in a rural residential area east of Boardman, Oregon in a predominately agricultural landscape.
1	Oregon	3-12	Pilot Rock Community	BA-008 Spring Hollow	Residential platform 3-12 is located within an urban residential area of Pilot Rock, Oregon. This community is found in Umatilla County and has an approximate population of 1,500 and is part of the Pendleton-Hermiston Micropolitan Statistical Area.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
2	Oregon	3-40[2]	Community of Echo	BA-003 Longhorn	Residential platform 3-40 is located at the edge of the Echo community. This community is found in Umatilla County and is part of the Pendleton-Hermiston Micropolitan Statistical Area and has an approximate population of 700. Refer to Appendix H3 for simulation.
2	Oregon	3-41	City of Pendleton	BA-008 Spring Hollow	Residential platform 3-41 is located at the edge of the City of Pendleton. Along the Umatilla River, this City is found in Umatilla County and has an approximate population of 16,900
3	Oregon	4-10	North Powder Community	BA-015 Baker Valley	Residential platform 4-10 is located east of the residential area of North Powder, Oregon along La Grande- Baker Highway in Union County.
2	Oregon	4-51	La Grande	BA-012 Grand Ronde Valley	Residential platform 4-51 is located within the town of La Grande on private land east of I-84. La Grande has an estimated population of 13,026.
2	Oregon	4-55	Elk Song Ranch	BA-011 Blue Mountains Forest	Residential platform 4-55 is within an open plateau area. This area would be in proximity to Morgan Lake and is one of the best fair chase elk hunting areas around the state along with more than 5,000 acres of timber land.
4	Oregon	5-5	Huntington Community	BA-027 Caribou Bar	Residential platform Huntington community is located near the Snake River in Oregon and along I- 84 and U.S. Route 30. User type includes static residential views and recreational travelers (approximately. 490 vehicles - according to 2013 traffic volumes provided by the Oregon Department of Transportation) visiting the area for water based recreational activities associated with the Snake River.
3	Oregon	5-82	Durkee Community	BA-026 Durkee Creek	Residential platform, Durkee Community, is an unincorporated community in Baker County, Oregon and is located at the Vandercar Road exit off I- 84. This platform is on the edge of a privately owned parcel of land and provides view of project components that would be located on BLM-administered lands. Platform 5-92 is on a high use corridor in addition to this local community, approximately 2 miles from project components. User type includes static residential views and recreational travelers via U.S. 30 (approximately. 490 vehicles per day –according to 2013 traffic volumes provided by the Oregon Department of Transportation).
4	Oregon	8-6	Brogan Community	MA-039 Treasure Valley	Residential platform 8-6 is located south of the community of Brogan, Oregon along John Day Highway on private land.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
4	Oregon	8-8	Jamieson Community	MA-039 Treasure Valley	Residential platform 8-8 is located south of the community of Jamieson, Oregon along John Day Highway on private land.
5	Oregon	8-102	Succor Creek Rural Area	MA-039 Treasure Valley	Residential platform 8-102 is located within a rural residential community along Succor Creek Road on private land approximately 1 mile from project components on BLM-administered lands.
6	Idaho	12-13	China Ditch Road Rural Residential Area	OW-006 Willow Spring	Residential platform 12-13 is a small isolated piece of BLM-administered land surrounded by private land in a rural residential area southwest of Wilson, Idaho. The use of this platform is generally low. An existing 500-kV transmission line is located approximately 0.2 mile southwest and an existing substation is located 0.3 mile north of the Platform. The primary focus of the viewer's attention is of the existing substation.
6	Idaho	12-27	Poison Creek Rural Area	OW-019 Treasure Valley	Residential platform 12-27 is located on Poison Creek Road within an agricultural landscape that consists on private land.
6	Idaho	12-28	Jump Creek Rural Area	OW-001 Owyhee Mountains	Residential platform 12-28 is located on South Jump Creek Road within an agricultural landscape that consists on private land.
National Historic Trail Related Key Observation Points					
1	Oregon	2-22	Well Spring Oregon Trail Site	BA-003 Longhorn	Platform 2-22 is located along Immigrant Lane near the Well Spring Oregon Trail Site. Platform 2-22 is within a predominately shrub steppe environment on NWSTF Boardman.
1	Oregon	3-16	Emigrant Springs State Heritage Area	BA-011 Blue Mountain Forest	Platform 3-16 is located near I-84 and associated with the Emigrant Springs State Heritage Area within a forested landscape approximately 4 miles from the nearest project components.
2	Oregon	3-27	Oregon Trail ACEC-Oregon Trail Road	BA-003 Longhorn	Platform 3-27 is located ¾ of a mile north of the Oregon Trail Road in Umatilla County.
2	Oregon	4-32[2]	Oregon Trail Interpretive Park	BA-011 Blue Mountains Forest	Platform 4-32 is located east of I-84 in proximity of the Oregon Trail Interpretive Park within a forested landscape located on USFS-administered lands. Refer to Appendix H3 for simulation. Note: H- Frame wooden structures will be used throughout this area as a mitigation measure.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
3	Oregon	5-25a[1, 2]	National Historic Oregon Trail Interpretive Center (Flagstaff Hill Trail, South)	BA-014 Blue and Wallowa Foothills	Platform 5-25a is along the Flagstaff Hill Trail at the National Historic Oregon Trail Interpretive Center (NHOTIC), which is an area with high visitation use (50,680 visitors in 2013). Scenic sensitivity of users is high with specific expectations associated with the Oregon Trail and the surrounding landscape in which this historic migration occurred. Refer to Appendix H3 for simulation.
3	Oregon	5-25b[1]	National Historic Oregon Trail Interpretive Center (Flagstaff Hill Trail, North)	BA-014 Blue and Wallowa Foothills	Similar to Platform 5-25a, scenic sensitivity of users is high with specific expectations associated with the Flagstaff Hill Trail at the NHOTIC and the surrounding landscape in which this historic migration occurred.
3	Oregon	5-25c[1, 2]	National Historic Oregon Trail Interpretive Center (Panorama Point)	BA-014 Blue and Wallowa Foothills	Similar to the other Sensitive Viewing Platforms located at the NHOTIC, Panorama Point has a high level of visual sensitivity associated with the Oregon Trail and landscape in which this historic migration occurred. Refer to Appendix H3 for simulation.
3	Oregon	5-25d[1, 2]	National Historic Oregon Trail Interpretive Center (Main Building)	BA-014 Blue and Wallowa Foothills	Platform 5-25d is at the Main Building at the NHOTIC, which experiences high visitation use (50,680 visitors in 2013). Scenic sensitivity of users is high with specific expectations associated with the Oregon Trail and landscape in which this historic migration occurred. Refer to Appendix H3 for simulation.
3	Oregon	5-25e[1, 2]	National Historic Oregon Trail Interpretive Center (Wagon Encampment)	BA-014 Blue and Wallowa Foothills	Platform 5-25e is at the Wagon Encampment at the NHOTIC. This platform is located on an elevated landscape on BLM-administered lands. Refer to Appendix H3 for simulation.
3	Oregon	5-26[1]	Oregon Trail ACEC – Hill Creek Road	BA-014 Blue and Wallowa Foothills	Platform 5-26 is located along Hill Creek Road and associated Oregon Trail point of interest. Visitor use is low due because of the lack of public access to the area. Use at this platform is generally limited to local residents and consist of less than 15 visits per year.
3	Oregon	5-30	Oregon Trail Crossing – Plano Road	BA-025 Juniper and Sugarloaf Mountains	Platform 5-30 is 0.5 mile away from the Oregon National Historic Trail. Project component would cross the NHT from this platform.
3	Oregon	5-31	Oregon Trail Crossing –Weatherby Road	BA-027 Caribou Bar	Platform 5-31 is found east of I-84 and is less than 0.1 mile away from the travel route.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
3	Oregon	5-32[1]	Oregon Trail Kiwanis Club Memorial	BA-014 Blue and Wallowa Foothills	Platform 5-32 is associated with NHOTIC and is located along SR 86 on BLM-administered land within a rolling landscape. Visitors at this location are specifically looking at cultural features and scenic views of the landscape.
3	Oregon	5-33[1]	Oregon Trail Ruts Interpretive Site	BA-021 Virtue Flat	Platform 5-33 is associated with NHOTIC and is located along SR 86 on BLM-administered land within a rolling landscape. Visitors at this location are specifically looking at cultural features and scenic views of the landscape. Use is associated with specific landscape expectations in conjunction with historic human migration of the Oregon Trail.
3	Oregon	5-60[1, 2]	NHOTIC Entrance State Highway 86	BA-021 Virtue Flat	Platform 5-60 is a special designation area with high visitation use (50,680 in 2013) with focused landscape attention within BLM-administered lands. Refer to Appendix H3 for simulation.
4	Oregon	8-1[1]	Alkali Springs Interpretive Site	MA-120 Alkali Flats	Platform 8-1 is located within the Tub Mountain Segment of the National Historic Oregon Trail ACEC designated by the BLM. Platform 8-1 is at a small interpretive site near the south end of the ACEC parcel, along Old Oregon Trail Road approximately 8 miles north of Vale, Oregon. Visitor use is low. Facilities at the site include a small parking area and an interpretive panel describing Oregon Trail emigrants' use of the site as a "nooning" stop. This platform is on the west edge of the ACEC area; lands to the east of the Platform are federal lands managed by the BLM, while extensive areas of privately owned rangeland are to the west. The site is along Old Oregon Trail Road, a gravel- surfaced road maintained by Malheur County that is roughly parallel to the Oregon Trail route and overlaps it in places.
4	Oregon	8-3[1, 2]	Oregon Trail ACEC - Birch Creek	MA-040 Moores Hollow	Platform 8-3 is located at the Birch Creek Interpretive Site, a BLM recreation site with minimal development within the Birch Creek Segment of the National Historic Oregon Trail ACEC. The site is in the northeastern corner of Malheur County approximately 6 miles southeast of Huntington, Oregon and less than 1 mile west from I-84. Visitor use is low. Refer to Appendix H3 for simulation.

Table 3-413. Sensitive Stationary Viewing Platforms					
Segment	**State**	**Platform Number**	**Stationary Sensitive Viewing Platform Name**	**Associated Visual Analysis Unit Number/Name**	**Platform Information**
4	Oregon	8-24	Oregon Trail ACEC – Tub Mountain	MA-040 Moores Hollow	Platform 8-24 is located within the Tub Mountain Segment of the National Historic Oregon Trail ACEC designated by the BLM. The site is near the north end of the ACEC parcel, along Old Oregon Trail Road approximately 8 miles south of Huntington, Oregon and 17 miles north of Vale, Oregon. Old Oregon Trail Road is a native-surfaced, two-track road maintained by Malheur County that is roughly parallel to the Oregon Trail route and overlaps it in places. The use is generally low.
5	Oregon	8-103	Tub Springs Interpretive Site	MA-120 Alkali Flats	Platform 8-103 is located near Tub Mountain and is approximately 1.5 miles away from project components.

Table Notes:
[1]Sensitive viewing platforms selected by the BLM
[2]Simulations for Platform Numbers 3-40, 4-5, 4-32, 4-40, 5-25a, 5-25c, 5-25d, 5-25e, 5-60, 8-3, 8-52, and 8-96 can be found in Appendix H3.

Table 3-414. Sensitive Linear Viewing Platforms		
Segment	**Sensitive Linear Viewing Platforms**	**County, and State Location**
Sensitive Linear Viewing Platforms Associated with General Travel Routes		
Interstate and U.S. Routes		
1	I-82	Umatilla County, Oregon
1, 2, 3, and 4	I-84	Baker, Malheur, Morrow, Umatilla, and Union counties, Oregon
5	U.S. Highway 20	Malheur County, Oregon
4	U.S. Highway 26	Malheur County, Oregon
1	U.S. Highway 207	Umatilla County, Oregon
1	U.S. Highway 395	Umatilla County, Oregon
State Routes		
1	State Highway 74	Baker County, Oregon
2, 3	State Highway 203	Baker and Union counties, Oregon
2	State Highway 244	Union County, Oregon
Local Routes		
3	Alder Creek Road	Baker County, Oregon
3	Daly Creek Road	Baker County, Oregon
3	Eagle Creek Road	Baker and Union counties, Oregon
3	Manning Creek Road	Baker County, Oregon
5	Mitchell Butte Road	Malheur County, Oregon
3	Sparta Road	Baker County, Oregon
Sensitive Linear Viewing Platforms Associated with Recreation		
Local Routes		
5	Owyhee River Canyon Road	Malheur County, Oregon
3	Powder River Wild and Scenic River Corridor/ Thief Valley Reservoir Road	Baker and Union counties, Oregon
U.S. Forest Service Roads		
2	U.S. Forest Service (USFS) Road 21	Union County, Oregon
2	USFS Road 43 - Ladd Canyon Road	Union County, Oregon
3	USFS Road 67 - Big Creek	Baker and Union counties, Oregon
3	USFS Road 70	Baker County, Oregon
3	USFS Road 250	Baker County, Oregon
Scenic Byways, Back Country Byways, and Scenic Bikeways		
1	Blue Mountain Scenic Byway	Gilliam and Morrow counties, Oregon
3	Elkhorn Scenic Byway	Baker County, Oregon
2, 3	Grande Tour Scenic Bikeway	Union County, Oregon
2, 3	Grande Tour Route	Union County, Oregon
2, 3	Hells Canyon All American Road	Baker and Union counties, Oregon
6	Snake River Canyon Scenic Byway	Canyon County, Idaho
3, 4	Snake River-Mormon Basin Back Country Byway	Baker County, Oregon

Direct and Indirect Effects

The construction, operation, and maintenance of the B2H Project potentially would result in direct and indirect effects on visual resources. These potential effects would be directly related to potential

changes to landscape character and scenic quality; views from stationary and linear Sensitive Viewing Platforms; and potential views from SMAs. To provide a better understanding of what types of uses these impacts are associated with, the discussion of effects has been organized as follows:

- **Effects on Landscape Character and Scenic Quality.** These discussions are focused on the most critical potential impacts on the physical characteristics of the landscape (landscape character) and impacts on the attributed value of the landscape (scenic quality) for each VAU. These narratives include a general description of the landscape type, as well as the determination of impacts on the scenic quality ratings for each VAU. Inventory data and residual impacts are shown on large-format map MV-22. A separate analysis to determine the change in the cultural modification score associated with BLM SQRUs in the Malheur and Owyhee Field Offices is located in Appendix H.
- **Effects on Residential Views.** These descriptions are focused on the most critical potential impacts on views from residences within 0.5 mile of the alternatives, views from incorporated community boundaries, and views from stationary Sensitive Viewing Platforms that are related to residences. The narratives include general descriptions of expected changes to views from these viewing locations.
- **Effects on Recreational Views.** These descriptions are focused on the most critical potential impacts on views from stationary and linear Sensitive Viewing Platforms that are related to recreation. Recreation-related stationary platforms include specific recreation locations such as camp sites or trailheads, while the recreation-related linear platforms include routes such as scenic byways or bikeways. General descriptions of expected changes to views from these viewing locations are provided within the narratives.
- **Effects on Views from Travel Routes.** These descriptions are focused on the most critical potential impacts on views from travel routes that are not specifically or solely intended for recreation. Linear platforms discussed within these narratives include primary and secondary travel routes such as interstate and state highways. These narratives include general descriptions of expected changes to views from these viewing locations.

Contrast-rating worksheets completed from the BLM-related Sensitive Viewing Platforms, as well as visual simulations from selected viewing platforms, are located in Appendix H3. Viewer inventory data and residual impacts are shown on large-format map MV-23.

In addition to descriptions of potential effects, these effects are then considered in determining whether the alternative route would be in conformance with management objectives that have been established within the study corridor. These determinations are discussed under the heading “Conformance with Management Objectives” for each alternative route and route variation. BLM contrast-rating forms, associated with determining compliance with BLM VRM class objectives, are located in Appendix H. In areas where the B2H Project was found to be out of conformance with visual management objectives, proposed plan amendments for visual resources, including maps depicting the areas to be amended, are described in Section 3.4.

No Action Alternative

Under this alternative, the existing landscape character and scenic quality would remain as they presently exist. There would likewise be no identifiable impact on the casual viewer from sensitive stationary or linear viewing platforms or on views from the SMAs.

Effects Common to All Alternatives

Due to the intermittent nature and short duration of geotechnical investigation activities, impacts on visual resources would be minor. Vegetation clearing for the geotechnical investigation would be limited and the time frame for vegetation to reestablish would be expected within two seasons in areas that are reseeded. Because vegetation clearing would be minimal, long-term impacts on the landscape would be low. Because of the low level of change to the characteristic landscape, low to no contrast would occur. Thus the geotechnical investigation activities would conform with BLM and USFS visual management objectives.

Segment 1—Morrow-Umatilla

The impacts associated with each alternative and route variation in Segment 1 are described in this section. Supporting information is presented in Table 3-415, Table 3-416, Table 3-417, and Table 3-418). Table 3-415 presents the scenic quality impacts by VAU for each alternative route and route variation within Segment 1, including the acreage within the foreground and middleground of each VAU with views of the B2H Project. The existing scenic quality rating of each VAU also is included in this table, along with the residual scenic quality rating and score for both the foreground and middleground acreage. The residual scenic quality scores are based on the amount of change in score anticipated based on the criteria presented in Table 3-403.

Information on potential impacts on viewers is represented in Table 3-415 and Table 3-417. More specifically, Table 3-416 presents an overall comparison of impacts on viewers by alternative route and route variation, as measured in miles of high, moderate, and low impacts. The mileages of impacts are associated with the impacts as they relate back to the alignment of each alternative in Segment 1. This table also includes the total mileage of each alignment. Table 3-417 presents impacts associated with Sensitive Viewing Platforms and information on conformance with BLM VRM objectives for BLM-related Sensitive Viewing Platforms in Segment 1. Each assessment of conformance also is accompanied by the length of the alternative that can be viewed crossing the associated BLM VRM Class(es).

Conformance with USFS VQOs is presented in Table 3-418. These determinations are based on the expected level of impact on the landscape character within VAU BA-011 (Blue Mountains Forest) (the only VAU with USFS-administered lands crossed by the B2H Project in Segment 1). The determinations of conformance with USFS VQOs are based on the criteria provided in Table 3-403.

At the end of this section is a conclusion of the impacts on Segment 1, which provides an overview of impacts as well as to which alternative routes and/or variations would be preferable. Because there are several facets to consider when analyzing potential impacts on visual resources (e.g. landscape

character and scenic quality, viewers, and plan conformance), this overview provides preferences associated with each of those facets.

Table 3-415. Scenic Quality Impacts by Visual Analysis Unit for Segment 1—Morrow-Umatilla

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-001 Columbia River Valley								
Applicant's Proposed Action	0	5,054	C (8.5)	No change	Moderate	C (8.5)	C (8.5)	0
Variation S1-B1	*Not applicable*							
Variation S1-B2	*Not applicable*							
East of Bombing Range Road	0	5,053	C (8.5)	No change	Moderate	C (8.5)	C (7.5)	5,053
Applicant's Proposed Action – Southern Route	0	5,054	C (8.5)	No change	Moderate	C (8.5)	C (7.5)	5,054
West of Bombing Range Road – Southern Route	0	5,054	C (8.5)	No change	Moderate	C (8.5)	C (7.5)	5,054
Longhorn	0	4,851	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	4,851
Interstate 84	0	4,851	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	4,851
Variation S1-A1	*Not applicable*							
Variation S1-A2	*Not applicable*							
Interstate 84 – Southern Route	0	4,851	C (8.5)	No change	Moderate	C (8.5)	C (7.5)	4,851
BA-003 Longhorn								
Applicant's Proposed Action	0	4,851	C (8.5)	No change	Moderate	C (8.5)	C (7.5)	4,851
Variation S1-B1	*Not applicable*							
Variation S1-B2	*Not applicable*							
East of Bombing Range Road	17,562	146,315	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	163,877
Applicant's Proposed Action – Southern Route	17,375	145,563	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	162,938
West of Bombing Range Road – Southern Route	17,675	133,153	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	150,828
Longhorn	14,997	129,783	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	144,780
Interstate 84	24,694	190,335	C (8.5)	Low	Low	C (8.5)	C (8.5)	0
Variation S1-A1	*10,032*	*82,853*	*C (8.5)*	*Moderate*	*Low*	*C (7.5)*	*C (8.5)*	*10,032*
Variation S1-A2	*2,161*	*65,446*	*C (8.5)*	*Low*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Interstate 84 – Southern Route	24,694	190,335	C (8.5)	Low	Low	C (8.5)	C (8.5)	0

Table 3-415. Scenic Quality Impacts by Visual Analysis Unit for Segment 1—Morrow-Umatilla

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-004 Butter Creek								
Applicant's Proposed Action	505	14,443	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	14,948
Variation S1-B1	*Not applicable*							
Variation S1-B2	*Not applicable*							
East of Bombing Range Road	505	14,443	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	14,948
Applicant's Proposed Action – Southern Route	505	14,443	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	14,948
West of Bombing Range Road – Southern Route	2,307	12,478	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	17,785
Longhorn	505	14,443	C (8.5)	Moderate	Moderate	C (7.5)	C (7.5)	14,948
Interstate 84	Not applicable							
Variation S1-A1	*Not applicable*							
Variation S1-A2	*Not applicable*							
Interstate 84 – Southern Route	Not applicable							
BA-005 Matlock								
Applicant's Proposed Action	2,576	31,055	C (10.0)	High	Moderate	C (8.5)	C (9.0)	33,631
Variation S1-B1	*Not applicable*							
Variation S1-B2	*Not applicable*							
East of Bombing Range Road	2,576	31,055	C (10.0)	High	Moderate	C (8.5)	C (9.0)	33,631
Applicant's Proposed Action – Southern Route	4,516	50,841	C (10.0)	High	Low	C (8.5)	C (10.0)	55,357
West of Bombing Range Road – Southern Route	15,976	93,548	C (10.0)	High	Low	C (8.5)	C (10.0)	109,524
Longhorn	2,576	31,055	C (10.0)	High	Moderate	C (8.5)	C (9.0)	33,631
Interstate 84	0	4,144	C (10.0)	No change	Low	C (10.0)	C (10.0)	4,144
Variation S1-A1	*Not applicable*							
Variation S1-A2	*Not applicable*							
Interstate 84 – Southern Route	1,940	26,250	C (10.0)	No change	Low	C (10.0)	C (10.0)	0

Table 3-415. Scenic Quality Impacts by Visual Analysis Unit for Segment 1—Morrow-Umatilla								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-006 Coombs								
Applicant's Proposed Action	12,138	99,185	C (10.0)	Moderate	Moderate	C (9.0)	C (9.0)	111,323
Variation S1-B1	Not applicable							
Variation S1-B2	Not applicable							
East of Bombing Range Road	18,138	99,185	C (10.0)	Moderate	Moderate	C (9.0)	C (9.0)	117,323
Applicant's Proposed Action – Southern Route	20,640	106,184	C (10.0)	Moderate	Moderate	C (9.0)	C (9.0)	126,824
West of Bombing Range Road – Southern Route	4,874	36,759	C (10.0)	Moderate	Moderate	C (9.0)	C (9.0)	41,633
Longhorn	18,138	99,185	C (10.0)	Moderate	Moderate	C (9.0)	C (9.0)	117,323
Interstate 84	8,071	57,612	C (10.0)	High	Low	C (8.5)	C (10.0)	8,071
Variation S1-A1	*907*	*30,807*	*C (10.0)*	*Moderate*	*Low*	*C (9.0)*	*C (10.0)*	*907*
Variation S1-A2	*7,260*	*47,170*	*C (10.0)*	*Moderate*	*Low*	*C (9.0)*	*C (10.0)*	*7,260*
Interstate 84 – Southern Route	11,471	66,915	C (10.0)	High	Low	C (8.5)	C (10.0)	11,471
BA-007 McKay								
Applicant's Proposed Action	1,246	13,723	C (9.5)	High	Low	C (8.0)	C (9.5)	1,246
Variation S1-B1	*Not applicable*							
Variation S1-B2	*Not applicable*							
East of Bombing Range Road	1,246	13,723	C (9.5)	High	Low	C (8.0)	C (9.5)	1,246
Applicant's Proposed Action – Southern Route	1,328	11,166	C (9.5)	High	Low	C (8.0)	C (9.5)	1,328
West of Bombing Range Road – Southern Route	1,198	9,356	C (9.5)	High	Low	C (8.0)	C (9.5)	1,198
Longhorn	1,246	13,723	C (9.5)	High	Low	C (8.0)	C (9.5)	1,246
Interstate 84	1,246	14,755	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	1,246
Variation S1-A1	*0*	*1,043*	*C (9.5)*	*No change*	*Low*	*C (9.5)*	*C (9.5)*	*0*
Variation S1-A2	*0*	*1,043*	*C (9.5)*	*No change*	*Low*	*C (9.5)*	*C (9.5)*	*0*
Interstate 84 – Southern Route	1,328	14,108	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	1,328

Table 3-415. Scenic Quality Impacts by Visual Analysis Unit for Segment 1—Morrow-Umatilla								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-008 Spring Hollow								
Applicant's Proposed Action	1,644	15,178	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	1,644
Variation S1-B1	*Not applicable*							
Variation S1-B2	*Not applicable*							
East of Bombing Range Road	1,644	15,178	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	1,644
Applicant's Proposed Action – Southern Route	0	4,673	C (9.5)	No change	Low	C (9.5)	C (9.5)	0
West of Bombing Range Road – Southern Route	0	3,031	C (9.5)	No change	Low	C (9.5)	C (9.5)	0
Longhorn	1,644	15,178	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	1,644
Interstate 84	1,644	22,355	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	1,644
Variation S1-A1	*0*	*6,687*	*C (9.5)*	*No change*	*Low*	*C (9.5)*	*C (9.5)*	*0*
Variation S1-A2	*0*	*6,681*	*C (9.5)*	*No change*	*Low*	*C (9.5)*	*C (9.5)*	*0*
Interstate 84 – Southern Route	0	14,051	C (9.5)	No change	Low	C (9.5)	C (9.5)	0
BA-009 Blue Mountains Rocky Ridge								
Applicant's Proposed Action	7,111	48,014	B (16.0)	High	Moderate	B (14.5)	B (15.0)	23,999
Variation S1-B1	*0*	*827*	*B (16.0)*	*No change*	*Low*	*B (16.0)*	*B (16.0)*	*0*
Variation S1-B2	*0*	*827*	*B (16.0)*	*No change*	*Low*	*B (16.0)*	*B (16.0)*	*0*
East of Bombing Range Road	7,111	48,015	B (16.0)	High	Moderate	B (14.5)	B (15.0)	55,126
Applicant's Proposed Action – Southern Route	8,472	57,363	B (16.0)	High	Moderate	B (14.5)	B (15.0)	65,835
West of Bombing Range Road – Southern Route	8,472	57,363	B (16.0)	High	Moderate	B (14.5)	B (15.0)	0
Longhorn	7,111	48,014	B (16.0)	High	Moderate	B (14.5)	B (15.0)	23,999
Interstate 84	7,111	48,014	B (16.0)	High	Moderate	B (14.5)	B (15.0)	23,999
Variation S1-A1	*Not applicable*							
Variation S1-A2	*Not applicable*							
Interstate 84 – Southern Route	8,472	57,363	B (16.0)	High	Moderate	B (14.5)	B (15.0)	65,835

Table 3-415. Scenic Quality Impacts by Visual Analysis Unit for Segment 1—Morrow-Umatilla

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-011 Blue Mountains Forest								
Applicant's Proposed Action	13,205	94,339	B (15.0)	High	Moderate	B (13.5)	B (14.0)	107,544
Variation S1-B1	*4,536*	*48,132*	*B (15.0)*	*High*	*Moderate*	*B (13.5)*	*B (14.0)*	*52,668*
Variation S1-B2	*4,544*	*48,150*	*B (15.0)*	*High*	*Moderate*	*B (13.5)*	*B (14.0)*	*52,694*
East of Bombing Range Road	9,837	56,205	B (15.0)	High	Moderate	B (13.5)	B (14.0)	66,042
Applicant's Proposed Action – Southern Route	9,837	56,205	B (15.0)	High	Moderate	B (13.5)	B (14.0)	66,042
West of Bombing Range Road – Southern Route	9,837	56,205	B (15.0)	High	Moderate	B (13.5)	B (14.0)	66,042
Longhorn	9,837	56,205	B (15.0)	High	Moderate	B (13.5)	B (14.0)	66,042
Interstate 84	9,837	56,205	B (15.0)	High	Moderate	B (13.5)	B (14.0)	66,042
Variation S1-A1	*Not applicable*							
Variation S1-A2	*Not applicable*							
Interstate 84 – Southern Route	9,837	46,205	B (15.0)	High	Moderate	B (13.5)	B (14.0)	56,042
BA-018 Grand Ronde River								
Applicant's Proposed Action	0	3,951	A (21.5)	Low	Low	A (21.5)	A (21.5)	0
Variation S1-B1	*0*	*3,951*	*A (21.5)*	*Low*	*Low*	*A (21.5)*	*A (21.5)*	*0*
Variation S1-B2	*0*	*3,952*	*A (21.5)*	*Low*	*Low*	*A (21.5)*	*A (21.5)*	*0*
East of Bombing Range Road	0	3,951	A (21.5)	Low	Low	A (21.5)	A (21.5)	0
Applicant's Proposed Action – Southern Route	0	3,951	A (21.5)	Low	Low	A (21.5)	A (21.5)	0
West of Bombing Range Road – Southern Route	0	3,951	A (21.5)	Low	Low	A (21.5)	A (21.5)	0
Longhorn	0	3,951	A (21.5)	Low	Low	A (21.5)	A (21.5)	0
Interstate 84	0	3,951	A (21.5)	Low	Low	A (21.5)	A (21.5)	0
Variation S1-A1	*Not applicable*							
Variation S1-A2	*Not applicable*							
Interstate 84 – Southern Route	0	3,951	A (21.5)	Low	Low	A (21.5)	A (21.5)	0

Table 3-415. Scenic Quality Impacts by Visual Analysis Unit for Segment 1—Morrow-Umatilla

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-032 Umatilla River								
Applicant's Proposed Action	Not applicable							
Variation S1-B1	*Not applicable*							
Variation S1-B2	*Not applicable*							
East of Bombing Range Road	Not applicable							
Applicant's Proposed Action – Southern Route	Not applicable							
West of Bombing Range Road – Southern Route	Not applicable							
Longhorn	Not applicable							
Interstate 84	1,368	15,596	B (16.0)	High	Low	B (14.5)	B (16.0)	1,368
Variation S1-A1	*1,368*	*15,596*	*B (16.0)*	*High*	*Low*	*B (14.5)*	*B (16.0)*	*1,368*
Variation S1-A2	*2,802*	*14,161*	*B (16.0)*	*High*	*Low*	*B (14.5)*	*B (16.0)*	*2,802*
Interstate 84 – Southern Route	1,368	15,596	B (16.0)	High	Low	B (14.5)	B (16.0)	1,368
BR-001 Columbia River Valley								
Applicant's Proposed Action	0	7,845	C (8.5)	No change	Low	Not applicable	C (8.5)	0
Variation S1-B1	*Not applicable*							
Variation S1-B2	*Not applicable*							
East of Bombing Range Road	Not applicable							
Applicant's Proposed Action – Southern Route	0	7,845	C (8.5)	No change	Low	C (8.5)	C (8.5)	0
West of Bombing Range Road – Southern Route	0	7,845	C (8.5)	No change	Low	C (8.5)	C (8.5)	0
Longhorn	0	7,421	C (8.5)	No change	Low	C (8.5)	C (8.5)	0
Interstate 84	0	7,421	C (8.5)	No change	Low	C (8.5)	C (8.5)	0
Variation S1-A1	*Not applicable*							
Variation S1-A2	*Not applicable*							
Interstate 84 – Southern Route	0	7,421	C (8.5)	No change	Low	C (8.5)	C (8.5)	0

Table Note: Acreages are approximate and have been rounded to the nearest 100 acres; therefore, the columns may not total.

Table 3-416. Residual Impacts on Viewers for Segment 1—Morrow-Umatilla				
Alternative Route	Total Length (miles)	Residual Impacts (miles crossed)		
		High	Moderate	Low
Applicant's Proposed Action	91.9	26.7	26.1	39.1
Variation S1-B1	*6.4*	*6.2*	*0.1*	*0.1*
Variation S1-B2	*6.4*	*6.2*	*0.2*	*0.0*
East of Bombing Range Road	92.3	27.6	25.7	39.0
Applicant's Proposed Action – Southern Route	99.1	26.4	28.6	44.1
West of Bombing Range Road – Southern Route	95.6	33.1	29.7	32.8
Longhorn	88.2	27.9	25.4	34.9
Interstate 84	84.7	60.5	19.4	4.8
Variation S1-A1	*18.5*	*17.0*	*1.1*	*0.4*
Variation S1-A2	*18.5*	*0.0*	*7.8*	*10.7*
Interstate 84 – Southern Route	93.4	60.7	22.9	9.8

Table 3-417. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 1—Morrow-Umatilla				
Alternative Route	Residual Impact Level	Visual Resource Management Classes Crossed and Visible	Conformance with Visual Resource Management Objectives (Yes/No)	Visible Miles not in Conformance with Resource Management Objectives
Stationary Sensitive Viewing Platforms				
2-16 Lindsay Prairie Preserve				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Low	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
2-17 Boardman Research Natural Area - Bombing Range Road				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	High	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
2-20 Butter Creek Community				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	High	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	High	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Low	Not applicable	Not applicable	Not applicable
Longhorn	High	Not applicable	Not applicable	Not applicable

Table 3-417. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 1—Morrow-Umatilla				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
2-23 Wilson Lane Southeast				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	High	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	High	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	High	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
3-3 Blue Mountain Forest State Scenic Corridor–Interstate 84				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	Moderate	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
Longhorn	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
3-9 City of Hermiston				
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
3-12 Pilot Rock Community				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Low	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
3-16 Emigrant Springs State Heritage Area				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Low	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Low	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable

Table 3-417. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 1—Morrow-Umatilla				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
3-20 McKay Creek National Wildlife Refuge–Boat Launch				
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable
Interstate 84	Low	Not applicable	Not applicable	Not applicable
3-21 McKay Creek National Wildlife Refuge–Spring Creek Road				
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable
Interstate 84	Low	Not applicable	Not applicable	Not applicable
3-24 Meacham Divide Nordic Skiing Area				
Applicant's Proposed Action	None	Not applicable	Not applicable	Not applicable
Variation S1-B1	*None*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*None*	*IV*	*Yes*	*0.0*
East of Bombing Range Road	None	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	None	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	None	Not applicable	Not applicable	Not applicable
Longhorn	None	Not applicable	Not applicable	Not applicable
Interstate 84	None	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	None	Not applicable	Not applicable	Not applicable
3-27 Oregon Trail Area of Critical Environmental Concern–Oregon Trail Road				
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
3-39 Community of Stanfield				
Interstate 84	Moderate	Not applicable	Not applicable	Not applicable
Variation S1-A1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-A2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Interstate 84 – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
3-40 Community of Echo				
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Variation S1-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable

Table 3-417. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 1—Morrow-Umatilla				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
3-41 City of Pendleton				
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Variation S1-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
4-4 Blue Mountain Crossing Sno–Park				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Variation S1-B1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	Moderate	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
Longhorn	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
4-5 Blue Mountain Forest State Scenic Corridor–Old Emigrant Hill Scenic Frontage Road				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S1-B1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	High	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	High	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	High	Not applicable	Not applicable	Not applicable
Longhorn	High	Not applicable	Not applicable	Not applicable
Interstate 84	High	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	High	Not applicable	Not applicable	Not applicable
4-6 Blue Mountain Forest State Scenic Corridor–Summit Rd (Exit 243)				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S1-B1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Low	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Low	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable

Table 3-417. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 1—Morrow-Umatilla				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
4-32 Oregon Trail Interpretive Park Picnic Area				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Variation S1-B1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	Moderate	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
Longhorn	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
4-33 Blue Mountain Forest Double Parking Lot				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Variation S1-B1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	Moderate	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
Longhorn	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
4-40 Spring Creek U.S. Forest Service Campground				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S1-B1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	High	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	High	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	High	Not applicable	Not applicable	Not applicable
Longhorn	High	Not applicable	Not applicable	Not applicable
Interstate 84	High	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	High	Not applicable	Not applicable	Not applicable

Table 3-417. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 1—Morrow-Umatilla				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Linear Sensitive Viewing Platforms				
Interstate 82				
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
Interstate 84				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Variation S1-B1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	Moderate	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Moderate	Not applicable	Not applicable	Not applicable
Longhorn	Moderate	Not applicable	Not applicable	Not applicable
Interstate 84	High	Not applicable	Not applicable	Not applicable
Variation S1-A1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-A2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Interstate 84 – Southern Route	High	Not applicable	Not applicable	Not applicable
Lewis and Clark Scenic Byway				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Low	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Low	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
State Highway 244				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S1-B1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Low	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	Low	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable

Table 3-417. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 1—Morrow-Umatilla				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Interstate 84	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
State Highway 74				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	Low	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	Low	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	High	Not applicable	Not applicable	Not applicable
Longhorn	Low	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	Low	Not applicable	Not applicable	Not applicable
State Highway 207				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	High	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	High	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	High	Not applicable	Not applicable	Not applicable
Longhorn	High	Not applicable	Not applicable	Not applicable
Interstate 84	High	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	High	Not applicable	Not applicable	Not applicable
U.S. Highway 395				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
East of Bombing Range Road	High	Not applicable	Not applicable	Not applicable
Applicant's Proposed Action – Southern Route	High	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	High	Not applicable	Not applicable	Not applicable
Longhorn	High	Not applicable	Not applicable	Not applicable
Interstate 84	High	Not applicable	Not applicable	Not applicable
Variation S1-A1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-A2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Interstate 84 – Southern Route	High	Not applicable	Not applicable	Not applicable
U.S. Forest Road 21				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S1-B1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S1-B2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
East of Bombing Range Road	High	Not applicable	Not applicable	Not applicable

Table 3-417. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 1—Morrow-Umatilla

Alternative Route	Residual Impact Level	Visual Resource Management Classes Crossed and Visible	Conformance with Visual Resource Management Objectives (Yes/No)	Visible Miles not in Conformance with Resource Management Objectives
Applicant's Proposed Action – Southern Route	High	Not applicable	Not applicable	Not applicable
West of Bombing Range Road – Southern Route	High	Not applicable	Not applicable	Not applicable
Longhorn	High	Not applicable	Not applicable	Not applicable
Interstate 84	High	Not applicable	Not applicable	Not applicable
Interstate 84 – Southern Route	High	Not applicable	Not applicable	Not applicable

Table 3-418. Conformance with U.S. Forest Service Visual Quality Objectives for Visual Analysis Unit BA-011 Blue Mountain Forest in Segment 1—Morrow-Umatilla

Alternative Route	Visual Quality Objective	Conformance	Visual Quality Objectives Met by the B2H Project	Acres of Disturbance	Percent of Total Visual Quality Objective within Study corridor
Applicant's Proposed Action	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	12	0.2
	Partial Retention	No	Maximum Modification	114	1.3
	Modification	No	Maximum Modification	13	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0
Variation S1-B1	*Preservation*	*Not applicable*	*Not applicable*	*0*	*0.0*
	Retention	*No*	*Maximum Modification*	*12*	*0.2*
	Partial Retention	*No*	*Maximum Modification*	*114*	*1.3*
	Modification	*No*	*Maximum Modification*	*13*	*0.0*
	Maximum Modification	*Not applicable*	*Not applicable*	*0*	*0.0*
Variation S1-B2	*Preservation*	*Not applicable*	*Not applicable*	*0*	*0.0*
	Retention	*No*	*Maximum Modification*	*107*	*2.3*
	Partial Retention	*No*	*Maximum Modification*	*2*	*0.0*
	Modification	*Not applicable*	*Not applicable*	*0*	*0.0*
	Maximum Modification	*Not applicable*	*Not applicable*	*0*	*0.0*

Table 3-418. Conformance with U.S. Forest Service Visual Quality Objectives for Visual Analysis Unit BA-011 Blue Mountain Forest in Segment 1—Morrow-Umatilla					
Alternative Route	**Visual Quality Objective**	**Conformance**	**Visual Quality Objectives Met by the B2H Project**	**Acres of Disturbance**	**Percent of Total Visual Quality Objective within Study corridor**
East of Bombing Range Road	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	12	0.2
	Partial Retention	No	Maximum Modification	114	1.3
	Modification	No	Maximum Modification	13	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0
Applicant's Proposed Action – Southern Route	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	12	0.2
	Partial Retention	No	Maximum Modification	114	1.3
	Modification	No	Maximum Modification	13	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0
West of Bombing Range Road to Southern Route	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	12	0.2
	Partial Retention	No	Maximum Modification	114	1.3
	Modification	No	Maximum Modification	13	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0
Longhorn	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	12	0.2
	Partial Retention	No	Maximum Modification	114	1.3
	Modification	No	Maximum Modification	13	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0
Interstate 84	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	12	0.2
	Partial Retention	No	Maximum Modification	114	1.3
	Modification	No	Maximum Modification	13	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0

Table 3-418. Conformance with U.S. Forest Service Visual Quality Objectives for Visual Analysis Unit BA-011 Blue Mountain Forest in Segment 1—Morrow-Umatilla					
Alternative Route	**Visual Quality Objective**	**Conformance**	**Visual Quality Objectives Met by the B2H Project**	**Acres of Disturbance**	**Percent of Total Visual Quality Objective within Study corridor**
Variation S1-A1	*Preservation*	*Does not cross U.S. Forest Service Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Variation S1-A2	*Preservation*	*Does not cross U.S. Forest Service Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Interstate 84 – Southern Road	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	12	0.2
	Partial Retention	No	Maximum Modification	114	1.3
	Modification	No	Maximum Modification	13	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0

Applicant's Proposed Action Alternative

Effects on Landscape Character and Scenic Quality

Extending generally northwest to southeast, this alternative crosses large expanses of flat to rolling dry farming lands with occasional narrow agricultural valleys, before reaching higher elevations with steeply rolling, forested mountains. Because this alternative traverses large expanses of flat to rolling rangeland, most of the 11 VAUs visible within 5 miles of this alternative are rated as C scenic quality (Table 3-415). Of these VAUS, one VAU has an A scenic quality rating, and three have B scenic quality ratings. The VAU with an A scenic quality rating would not be located within the foreground of the B2H Project resulting in a low level of residual impact. The VAUs with a B scenic quality rating would generally be subjected to high levels of project contrast due to the B2H Project crossing steep forested terrain, resulting in high impacts in the visible foreground and moderate impacts in the visible middleground. From areas in which the B2H Project would be visible, these VAUs also would experience decreases to the scenic quality rating scores. The decreases in scores would not, however, result in changes in the overall rating of B scenic quality.

Variation S1-B1

Because this route variation follows the same alignment, though Link 1-77 as the Applicant's Proposed Action Alternative goes through rolling forested lands, the impacts would be the same.

Variation S1-B2

This route variation (Link 1-73) generally parallels an existing 230-kV H-frame transmission line to the north and east of the Applicant's Proposed Action Alternative through rolling forested lands. Compared to the Applicant's Proposed Action Alternative, the project contrast associated with this variation would be predominately codominant with the parallel existing transmission line with its associated clearings and access roads. For a simulation of the route variation, refer to Appendix H3.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The Design Option 1 would occur in a VAU with a Class C scenic quality, VAU BA-003 Longhorn, and would include a rebuilt 115-kV transmission line on the east side of Bombing Range Road. The rebuild transmission line would be slightly larger in scale than the existing structures but would not considerably lower the scenic quality within the area.

Design Option 2

The Design Option 2, like Design Option 1, would occur in the same VAU with a Class C scenic quality and would have similar visual impacts as Design Option 1.

Design Option 3

The Design Option 3, like Design Option 1 would occur in the same VAU with a Class C scenic quality, but would have higher visual impacts as Design Option 1 due to the new stepdown substation that would be approximately 2.5 miles from the B2H Project.

Effects on Views

Approximately 26.7 miles of high impacts and 26.1 miles of moderate impacts on views associated with residents, recreation, and travel routes would be associated with the Applicant's Proposed Action Alternative.

Effects on Residential Views

In general, the highest impacts on residential viewers would be concentrated in five different locations where residences are located from 0.25 mile to 0.5 mile of the route alignment. Near the I-84 corridor and Wilson Lane east of Boardman, Oregon, several residences would have continuous views of the alternative components in this flat to rolling agricultural landscape. Currently, these residences have views of existing 500-kV and 69-kV transmission lines; however, along this route, the B2H Project would be closer to the residences than the existing 500-kV line. In the vicinity of Butter Creek, and to the north and east of Pilot Rock City, several residences in each of these areas would experience unobstructed views of the B2H Project and structures within a flat to rolling agricultural landscapes. Several residences also are located in the McKay Creek area, where rolling mountains begin to rise above the narrower and deeply incised agricultural valleys. Views of the B2H Project from these residences would be partially obstructed by landforms but generally skylined in proximity where visible. In the Blue Mountains, a number of residences that are scattered throughout this partially to densely wooded landscape with steeply rolling hills. In this area, most views of the transmission line towers,

structures, and clearings would be partially to mostly obstructed by the tall evergreen vegetation within the landscape.

High impacts on residential stationary Sensitive Viewing Platforms would include those for Sensitive Viewing Platform 2-23 (Wilson Lane Southeast) and 2-20 (Butter Creek Community). Views from Sensitive Viewing Platform 2-23 would include continuous, skylined views of the alternative alignment in a flat agricultural landscape from a distance of approximately 0.2 mile dominating the viewshed. Views from Sensitive Viewing Platform 2-20 also would be dominated by inferior skylined views of the alternative alignment from within a shallow valley from a distance of approximately 0.2 mile.

Variation S1-B1

Because this route variation follows the same alignment as the Applicant' Proposed Action Alternative, through the steeply rolling forested landscape of the Blue Mountains Impacts would be the same throughout the Link 1-77. Views from residences in this area generally would be obstructed by evergreen forest vegetation, with the exception of one residence that is located south of the Blue Mountain Crossing Sno-Park. This residence lies within approximately 350 feet of the route variation near a clearing in the forest vegetation, and would have views dominated by transmission line structures, access roads, and right-of-way vegetation clearing.

Variation S1-B2

Only one residence is located within 0.5 mile of this route variation. Views of the route variation from this residence would be obstructed by vegetation.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Design Option 1 action would have minimal impacts on views from residences.

Design Option 2

Design Option 2 would have similar minimal impacts on views associated with residences as Design Option 1.

Design Option 3

Design Option 3 would have moderate impacts on a residence found off of Little Juniper Lane. This residence would have views of the stepdown substation that would be introduced into the view, including additional geometric forms approximately 3 miles away.

Effects on Recreational Views

Key impacts on views from stationary viewing platforms associated with recreation would include views from Sensitive Viewing Platform 2-17 (Boardman Research Natural Area), Sensitive Viewing Platform 4-4 (Blue Mountain Crossing Sno-Park), Sensitive Viewing Platform 4-40 (Spring Creek USFS Campground), Sensitive Viewing Platforms 4-5 and 4-6 (Blue Mountain State Scenic Corridor), Sensitive Viewing Platform 4-32 (Oregon Trail Interpretive Park Picnic Area), and Sensitive Viewing Platform 4-33 (Blue Mountain Forest Double Parking Lot). Impacts on views from Sensitive Viewing Platform 2-17 would be moderate because the Applicant's Proposed Action Alternative would replace

an existing wooden H-frame 69-kV line located along the west side of Bombing Range Road that has already modified the existing flat agricultural and grassland setting. Views from Sensitive Viewing Platforms 4-40 and 4-5 would experience high level of impacts associated with views of the B2H Project as it crosses through heavily forested lands from less than 0.25 mile away. The B2H Project components and right-of-way clearing would be clearly visible from a neutral viewing position at these viewing platforms, and introduce lines and forms that would contrast with existing landscape characteristics and be dominant elements within the landscape.

Impacts on views from Sensitive Viewing Platforms 4-32 and 4-33 would be partially obstructed by tall evergreen forest vegetation. Where visible from these locations, the transmission line towers would be skylined at a slightly inferior viewing angle from a distance of approximately 1 mile. Because the project alignment would pass these viewing platforms at a parallel orientation, views of the right-of-way would be screened from view, and the top half of each tower structure would be visible above the adjacent trees. The towers would be codominant in the landscape from these viewing positions, resulting in a moderate level of impact.

There would be minimal impacts on linear viewing platforms or SMAs that are associated with recreation.

Variation S1-B1

Impacts on views from stationary, linear, and SMAs for this route variation would be the same as those expected for the Applicant's Proposed Action Alternative for Link 1-77.

Variation S1-B2

For Sensitive Viewing Platform 2-17, impacts from stationary viewing platforms associated with this route variation would be the same as those expected for the Applicant's Proposed Action Alternative. Views from Sensitive Viewing Platforms 4-4 and 4-5 would be mostly obstructed by tall evergreen forest vegetation, resulting in low levels of impact.

Impacts on views from Sensitive Viewing Platforms 4-32 and 4-33 would be partially obstructed by tall evergreen forest vegetation. Where visible from these locations, the transmission line towers would be backdropped by existing wooded lands from a superior viewing angle at a distance of approximately 0.3 to 0.4 mile. Because the project alignment would pass these viewing platforms at a parallel orientation, views of the right-of-way would be screened from view, and the top half of each tower structure would be visible above the adjacent trees. The towers would be subordinate in the landscape from these viewing positions, resulting in a low level of impact. Viewing platforms 4-32 and 4-33 are part of USFS's Oregon Trail Interpretive Park at Blue Mountain Crossing, and are connected by a paved road that provides access to this area. This access road begins on the west side of I-84, and perpendicularly crosses eastward under I-84, the clearing of a pipeline right-of-way, and the right-of-way clearing and H-frame structures of an existing 230-kV transmission line before reaching these viewing locations. Simulation 4-32 provides a visualization of Variation S1-B2 where it is colocated with the existing 230-kV transmission line, and Simulation 4-33 provides a simulation of the parallel views of the B2H

project from a point along the access road approximately 0.1 mile southeast of Sensitive Viewing Platform 4-33 (where the project would also be colocated with the existing 230-kV transmission line).

Views of the B2H Project from Sensitive Viewing Platform 4-40 would be from a neutral viewing position, and would be partially obstructed by tall evergreen forest vegetation. The project alignment would be parallel to the viewer at a distance of approximately 0.1 mile. Based on the parallel alignment, views of the right-of-way would be screened from view, but top portions of nearby tower structures could be visible above the adjacent trees. If visible, the towers would be codominant in the landscape from these viewing positions, resulting in a moderate level of impact.

There would be minimal impacts on linear viewing platforms or SMAs that are associated with recreation.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

The new double-circuit 230-kV associated with Design Option 1 would slightly increase impacts on views from Sensitive Viewing Platform 2-17 but impacts would remain within the moderate threshold. These impacts would include views of a larger double-circuit 230-kV transmission line compared to the existing 69-kV line.

Design Option 2

Impacts on views from Sensitive Viewing Platform 2-17 would be similar to Design Option 1 except this option would route the rebuilt transmission line farther to the east as viewed from Sensitive Viewing Platform 2-17 resulting in reduced effects on these views.

Design Option 3

Impacts on views from Sensitive Viewing Platform 2-17 would be similar to Design Option 2 except this option is located farther to the east further reducing effects on views.

Effects on Views from Travel Routes

The highest impacts on travel routes would be associated with a crossing of I-84 east of Boardman; a crossing of State Highway 207; a crossing of U.S. Highway 395; and closely paralleling I-84 in the Blue Mountains. The crossing of I-84 east of Boardman would result in head-on views of the B2H Project as viewers approach the State Highway 730 interchange in both directions. However, existing views along I-84 in this area include views of existing 500-kV and 230-kV lines within 1.5 miles of the Applicant's Proposed Action Alternative. In Butter Creek Valley area, the route crosses State Highway 207 in an area where travelers on the highway would experience continuous, skylined views (both parallel and head-on) of the B2H Project in a flat to rolling agricultural landscape. The B2H Project would cross U.S. Highway 395 just north of Pilot Rock City, where travelers on the highway would experience head-on, skylined views of the alternative as it crosses the highway in an agricultural valley. Travelers on I-84 would experience intermittent, parallel views of the alternative to the west of the highway. These views would, however, be partially obstructed by topography and tall evergreen forest vegetation reducing the dominance of the B2H Project.

Variation S1-B1

Because this route variation follows the same alignment as the Applicant's Proposed Action Alternative in the vicinity of I-84, impacts would be the same.

Variation S1-B2

This route variation diverts from the alignment of the Applicant's Proposed Action Alternative in the vicinity of the I-84 corridor within the Blue Mountains, turning further east and crossing I-84 in two separate locations. Although this route variation is colocated with an existing H-frame 230-kV transmission line, travelers using the I-84 would be able to observe a wider transmission corridor and associated geometric right-of-way vegetation clearing. Additionally the B2H Project structures would be taller than the existing transmission line which would rise above the trees when adjacent to I-84. Therefore, a higher impact on viewers would be associated with Variation S1-B1 than the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

There would be no high or moderate impacts on viewers from travel routes due to distance.

Design Option 2

There would be no high or moderate impacts on viewers from travel routes due to distance.

Design Option 3

There would be no high or moderate impacts on viewers from travel routes due to distance.

Conformance with Management Objectives

If the Applicant's Proposed Action Alternative were selected, the B2H Project would conform to management objectives for BLM-administered lands. However, there would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU. The areas of non-conformance with VQOs provided in Table 3-418 would include 12 acres of non-conformance with the Retention VQO; 108 acres of non-conformance with the Partial Retention VQO; and 13 acres of non-conformance with the Modification VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Variation S1-B1

Because this variation follows the same alignment through Link 1-77 in BA-011 Blue Mountain Forest VAU, the conformance with management objectives of the B2H Project associated with this route variation is the same as described for the Applicant's Proposed Action.

Variation S1-B2

Similar to the Applicant's Proposed Action Alternative, the B2H Project would conform with BLM management objectives of this route variation is selected. However, there would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU. This occurrence would include 107 acres of non-conformance in the Retention VQO and 108 acres of non-conformance

in the Partial Retention VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The Design Options 1, 2, and 3 do not cross BLM- and USFS-administered lands.

East of Bombing Range Road Alternative

Effects on Landscape Character and Scenic Quality

Impacts on landscape character and scenic quality associated with this alternative would be similar to those described for the Applicant's Proposed Action Alternative. An exception would be where the B2H Project would be located along the east side of Bombing Range Road (rather than the west side of Bombing Range Road). Although the project contrast in this area would be moderate for both theses alternative routes, the level of impacts associated with the East of Bombing Range Alternative would be expected to be slightly lower because under this alternative the B2H Project would be an additional line to the existing single-pole transmission line on the east side of the Bombing Range Road, the Applicant's Proposed Action Alternative would replace a more visually intrusive H-frame transmission line on the west side of the Bombing Range Road.

Effects on Viewers

The East of Bombing Range Road Alternative would have 0.9 mile more of high impacts and 0.4 mile less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Viewers

Effects on residential viewers from the B2H Project under this alternative would be the similar to those associated with the Applicant's Proposed Action Alternative. If the B2H Project were located on the east side of Bombing Range Road (rather than on the west side of Bombing Range Road), the impacts on the concentration of residences located near the I-84 corridor and Wilson Lane would be similar to the impacts described for the Applicant's Proposed Action Alternative. Impacts on views from residential stationary Sensitive Viewing Platforms also would be similar to those described for the Applicant's Proposed Action Alternative.

Effects on Recreational Views

Impacts on views from stationary viewing platforms associated with recreation would be similar to those described for the Applicant's Proposed Action Alternative. An exception would be the views from Sensitive Viewing Platform 2-17 where the B2H Project components on the east side of Bombing Range Road would be visible in addition to the existing wood H-frame 69-kV line on the west side of the road resulting in high impacts.

There would be minimal impacts on linear viewing platforms or SMAs that are associated with recreation.

Effects on Views from Travel Routes

Impacts on viewers from travel routes associated with this alternative would be similar to those described for the Applicant's Proposed Action Alternative.

Conformance with Management Objectives

If the East of Bombing Range Road Alternative is selected, the B2H Project would conform to management objectives established for BLM-administered lands. However, similar to the Applicant's Proposed Action Alternative, there would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU. The areas of non-conformance with VQOs established in the Table 3-418 would include 12 acres of non-conformance with the Retention VQO; 108 acres of noncompliance within the Partial Retention VQO; and 13 acres of non-conformance within the Modification VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Applicant's Proposed Action – Southern Route Alternative

Effects on Landscape Character and Scenic Quality

Impacts on landscape character and scenic quality associated with the Applicant's Proposed Action – Southern Route Alternative would be similar for approximately 73 miles to those described for the Applicant's Proposed Action Alternative. An exception is that this route extends south of the community of Pilot Rock (rather than to the north), would increase the overall length approximately 7 miles longer of the B2H Project through flat to steeply rolling lands that are mostly undeveloped. The greater number of miles across undeveloped lands would result in more miles of high impacts on landscape character and scenic quality than the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Similar to the Applicant's Proposed Action Alternative, Design Option 1 would occur in a VAU with a Class C scenic quality, and would include a rebuilt 115-kV transmission line on the east side of Bombing Range Road. The rebuild transmission line would be slightly larger in scale than the existing structures but would not considerably lower the scenic quality within the area.

Design Option 2

The Design Option 2, like Design Option 1 would occur in the same VAU with a Class C scenic quality, VAU BA-003 Longhorn and would have similar visual impacts as Design Option 1.

Design Option 3

The Design Option 3, like Design Option 1 would occur in the same VAU with a Class C scenic quality, VAU BA-003 Longhorn and would have similar visual impacts as Design Option 1.

Effects on Viewers

The Applicant's Proposed Action – Southern Route Alternative would have 0.3 mile less of high impacts and 2.5 miles more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Approximately 26.4 miles of high impacts, 0.3 less than the Applicant's Proposed Action Alternative and 28.6 miles of moderate impacts, 2.5 miles more than the Applicant's Proposed Action Alternative, on views associated with residents, recreation, and travel routes would be associated with the Applicant's Proposed Action – Southern Route Alternative.

Effects on Residential Viewers

Effects on residential viewers from the B2H Project associated with this alternative would be similar as those described for the Applicant's Proposed Action Alternative as the two alternative routes share much of the same alignment. However, under this alternative, the B2H Project would turn further to the south and be located several miles from the residences in the Pilot Rock City area, as well as several residences within the McKay Creek Valley. This would cause the impacts to be lower due to less residential views being affected. Impacts on the views from these residences would be low because the views would be from distances of approximately 3 miles, and would be partially to fully obstructed by existing landforms. The B2H Project would be visible from several homes in the Birch Creek Valley and from a different residence in the McKay Creek Valley than the Applicant's Proposed Action Alternative. In the vicinity of these two valleys, rolling mountains begin to rise above these increasingly narrower and deeply incised agricultural valleys. Views of the B2H Project components from these residences would be partially obstructed by landforms but generally skylined and in proximity where visible.

Impacts on residential stationary Sensitive Viewing Platforms associated with the Applicant's Proposed Action – Southern Route Alternative would be less than those described for the Applicant's Proposed Action Alternative due to the section of the route that travels south of Pilot Rock.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Similar to the Applicant's Proposed Action Alternative, Design Option 1 would have minimal impacts on views from residences.

Design Option 2

Design Option 2 would have similar minimal impacts on views associated with residences as Design Option 1.

Design Option 3

Design Option 3 would have moderate impacts on a residence found off of Little Juniper Ln. This residence would have views of the stepdown substation that would be introduced to views associated with this residence approximately 3.0 miles away.

Effects on Recreational Viewers

Impacts on views from stationary viewing platforms associated with recreation associated with the Applicant's Proposed Action – Southern Route Alternative would be the same as those described for the Applicant's Proposed Action Alternative. Although the Applicant's Proposed Alternative Action is closer to Sensitive Viewing Platforms 3-20 and 3-21 at a distance of approximately 2.5 miles, the impacts from both alternative routes on recreational views are low.

There would be minimal impacts on linear viewing platforms or SMAs that are associated with recreation.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Similar to the Applicant's Proposed Action Alternative, the new double-circuit 230-kV associated with Design Option 1 would slightly increase impacts on Sensitive Viewing Platform 2-17, though impacts would remain within the moderate threshold. These impacts would be associated with views of new transmission line structures that would be larger in scale (existing 69-kV structures as compared to new double-circuit 230-kV structures).

Design Option 2

Impacts on Sensitive Viewing Platform 2-17 would be similar to those discussed for Design Option 1, as the impacts would include the slightly larger transmission line from the new double-circuit 230-kV. Impacts associated with Design Option 2 would be slightly less than those associated with Design Option 1 because the proposed transmission line would affect a longer length of Sensitive Viewing Platform 2-17.

Design Option 3

Impacts on Sensitive Viewing Platform 2-17 would be similar to those discussed for Design Option 2, as the impacts would include the slightly larger transmission line from the new double-circuit 230-kV. Impacts associated with Design Option 3 would be slightly less than those associated with Design Option 2 because the proposed transmission line would affect a longer length of Sensitive Viewing Platform 2-17.

Effects on Viewers from Travel Routes

Impacts on views from travel routes associated with this alternative would be similar to those associated with the Applicant's Proposed Action Alternative, with the exception of the State Highway 395 crossing of this alternative through a mostly undeveloped area rather than through agricultural land. Travelers on this travel route would experience skylined, head-on views of the alternative to the southwest of Pilot Rock City, within an enclosed valley resulting in high impacts

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

There would be no high or moderate impacts on viewers from travel routes due to distance.

Conformance with Management Objectives

Similar to the Applicant's Proposed Action Alternative, the B2H Project would conform with BLM management objectives if this alternative route is selected. However, there would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU. This occurrence would include 12 acres of non-conformance in the Retention VQO; 108 acres of non-conformance in the Partial Retention VQO; and 13 acres of non-conformance in the Modification VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The Design Options 1, 2, and 3 do not cross BLM and USFS-administered lands..

West of Bombing Range Road – Southern Route Alternative

Effects on Landscape Character and Scenic Quality

Similar to the Applicant's Proposed Action Alternative, this route extends generally northwest to southeast, crossing large expanses of flat to steeply rolling lands with occasional narrow agricultural valleys before reaching higher elevations with steeply rolling, forested mountains. Under this alternative, the B2H Project would extend further to the south than the Applicant's Proposed Action Alternative, crossing rolling hills and drainages that are less developed; thus, resulting in additional area of high impacts. Although impacts on VAUs would be similar to those of the Applicant's Proposed Action Alternative, the West of Bombing Range Road – Southern Route Alternative would have a greater degree of impact on mostly undeveloped landscapes.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Similar to the Applicant's Proposed Action Alternative, Design Option 1 would occur in a VAU with a Class C scenic quality, and would include a rebuilt 115-kV transmission line on the east side of Bombing Range Road. The rebuild transmission line would be slightly larger in scale than the existing structures but would not considerably lower the scenic quality within the area.

Design Option 2

The Design Option 2, like Design Option 1 would occur in the same VAU with a Class C scenic quality, VAU BA-003 Longhorn and would have similar visual impacts as Design Option 1.

Design Option 3

The Design Option 3, like Design Option 1 would occur in the same VAU with a Class C scenic quality, VAU BA-003 Longhorn and would have similar visual impacts as Design Option 1.

Effects on Viewers

The West of Bombing Range Road – Southern Route Alternative would have 6.4 miles more of high impacts and 3.6 miles more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Viewers

Impacts on residential viewers from the B2H Project under this alternative would be same as those described for the Applicant's Proposed Action Alternative near the I-84 corridor, Wilson Lane east of Boardman, and in the Blue Mountains. Several residences near the I-84 corridor and Wilson Lane would have continuous views of the B2H Project components in this flat to rolling agricultural landscape where existing 500-kV and 69-kV transmissions lines are visible but due to the proximity of the B2H Project, high impacts are anticipated. Similar to the Applicant's Proposed Action Alternative, impacts on residential viewers in the Blue Mountains would affect a number of residences scattered throughout this

partially to densely wooded landscape with steeply rolling hills. Most views of the B2H Project structures and clearings would be partially to mostly obstructed by the tall evergreen vegetation within the landscape.

Impacts on residential viewers from the B2H Project would vary from the Applicant's Proposed Action Alternative where the B2H Project would extend further southward through less developed rolling hills and drainages. More miles of high impacts on residential viewers (approximately 25 versus 23 miles) would be anticipated but fewer residences would be affected (due to greater distance between the B2H Project and the more populated area of Pilot Rock City).

Impacts on viewers from residential stationary Sensitive Viewing Platforms would be similar to those described for the Applicant's Proposed Action Alternative.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Similar to the Applicant's Proposed Action Alternative, Design Option 1 would have minimal impacts on views from residences.

Design Option 2

Design Option 2 would have similar minimal impacts on views associated with residences as Design Option 1.

Design Option 3

Design Option 3 would have moderate impacts on a residence found off of Little Juniper Lane. This residence would have views of the stepdown substation that would be introduced to views associated with this residence approximately 3.0 miles away.

Effects on Recreational Viewers

Impacts on views from stationary viewing platforms associated with recreation along the West of Bombing Range Road – Southern Route Alternative would be similar to those described for the Applicant's Proposed Action Alternative. An exception would be moderate impacts on views from Sensitive Viewing Platform 2-16 (Lindsay Prairie Preserve) where the B2H Project components would be skylined and continuously visible within a flat to rolling agricultural landscape.

There would be minimal impacts on linear viewing platforms or SMAs that are associated with recreation.

Additional Action – 69-Kilovolt Line Replacement

Design Option 1

Similar to the Applicant's Proposed Action Alternative, the new double-circuit 230-kV associated with Design Option 1 would slightly increase impacts on Sensitive Viewing Platform 2-17, though impacts would remain within the moderate threshold. These impacts would partially include a larger transmission line, from the existing 69-kV line to a new double-circuit 230-kV line as well as a visible structure.

Design Option 2

Impacts on Sensitive Viewing Platform 2-17 would similar to Design Option 1 as the impacts would still include the slightly larger transmission line from the new double-circuit 230-kV yet would sooner leave the views from Sensitive Viewing Platform 2-17 as the transmission line varies off to the east.

Design Option 3

Impacts on Sensitive Viewing Platform 2-17 would be similar yet would sooner leave the views from Sensitive Viewing Platform 2-17 as the transmission line varies off to the east further than Design Option 2.

Effects on Views from Travel Routes

Impacts on views from travel routes would be the similar as those described for the Applicant's Proposed Action Alternative where the B2H Project would cross I-84 east of Boardman and parallel I-84 in the Blue Mountains. The B2H Project along this alternative would cross State Highway 207 and U.S. Highway 395 in different locations than the Applicant's Proposed Action Alternative as well as an additional crossing of State Highway 74. The alignment for this alternative crosses State Highway 207 several miles west of Butter Creek, where travelers on the highway would experience continuous, head-on, skylined views of the B2H Project components in a flat agricultural landscape resulting in high impacts on these views. The route crosses U.S. Highway 395 several miles south of Nye, Oregon, where travelers on the highway also would experience head-on, skylined views of the alternative as it crosses the highway in a flat to rolling agricultural landscape resulting in high impacts on these views. Travelers on State Highway 74 would experience high impacts resulting from the B2H Project due to skylined, head-on and parallel views of the alternative within a rolling grassland landscape used primarily for grazing.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

There would be no high or moderate impacts on viewers from travel routes due to distance.

Conformance with Management Objectives

Similar to the Applicant's Proposed Action Alternative, the B2H Project would conform with BLM management objectives if this alternative route is selected. However, there would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU. These occurrences would include 12 acres of non-conformance in the Retention VQO; 108 acres of non-conformance in the Partial Retention VQO; and 13 acres of non-conformance in the Modification VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Additional Action – 69-Kilovolt Line Replacement

Design Options 1, 2, and 3

The Design Options 1, 2, and 3 would be in conformance with BLM and USFS management objectives for visual resources.

Longhorn Alternative

Effects on Landscape Character and Scenic Quality

Extending generally northwest to southeast, this alternative begins by crossing I-84 followed by crossing through irrigated farmland and tree farms several miles east of Bombing Range Road. In comparison to the Applicant's Proposed Action Alternative, the vertical form of the tree farms would be more similar in scale to the transmission line towers than the flat dry range lands and irrigated farming lands that the Applicant's Proposed Action Alternative would traverse. Although the degree of project contrast would be moderate for both alternatives within this area, this alternative would have a lesser degree of impact on area's scenic quality. Approximately 4 miles west of Butter Creek the Longhorn Alternative intersects the alignment of the Applicant's Proposed Action Alternative, and follows the same alignment with the same impacts on the scenic quality in those areas.

Effects on Viewers

The Longhorn Alternative would have 1.2 miles more of high impacts and 0.7 mile less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects Associated with Residents

Impacts associated with residential viewers would be the same as those of the Applicant's Proposed Action Alternative for most of the length of the variation except for the northeastern most portion of this alternative, where the Longhorn Alternative separates from the Applicant's Proposed Action Alternative and crosses through irrigated farmland and tree farms several miles east of Bombing Range Road. This alignment would result in a lesser degree of impacts on the residences near the I-84 corridor and Wilson Lane east of Boardman, but would result in high impacts on two residences within the irrigated farming and tree farming area. In this area the existing 500-kV lines are not visible; therefore the B2H Project would dominate these views as the setting is more intact

High impacts on residential stationary Sensitive Viewing Platforms would include those for Sensitive Viewing Platform 2-20 (Butter Creek Community). Views from this Sensitive Viewing Platform would be dominated by inferior skylined views of the alternative alignment from within a shallow valley from a distance of approximately 0.25 mile.

Effects on Recreational Viewers

Impacts from stationary viewing platforms associated with recreation would be similar to those of the Applicant's Proposed Action Alternative, with the exception that there would be no identifiable impacts associated with Sensitive Viewing Platform 2-17 or Sensitive Viewing Platform 2-16.

There would be no considerable impacts on linear viewing platforms or SMAs that are associated with recreation.

Effects on Views from Travel Routes

Impacts on viewers using travel routes would be the similar as those associated with the Applicant's Proposed Action Alternative, with the exception that the Longhorn Alternative's crossing of I-84 east of

Boardman would occur approximately 1.5 miles further east than that of the Applicant's Proposed Action Alternative. The level of impact associated with this crossing would not, however, differ from those of the Applicant's Proposed Action Alternative. This alternative would also affect the Sensitive Linear Platform State Highway 207 for a shorter duration.

Conformance with Management Objectives

The Longhorn Alternative would conform with management objectives for BLM-administered land. However, there would be areas of non-conformance on USFS-administered lands, in the BA-011 Blue Mountains Forest VAU. The areas of non-conformance with VQOs provided in Table 3-418 would include 12 acres of non-conformance with the Retention VQO, 108 acres of noncompliance within the Partial Retention VQO, and 13 acres of non-conformance within the Modification VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Interstate 84 Alternative and Variations

Effects on Landscape Character and Scenic Quality

Extending generally northwest to southeast, this alternative generally follows the I-84 corridor eastward before turning southward just west of Pendleton, Oregon. The alternative continues southward to a point northeast of Pilot Rock City, from which point it follows the same alignment as the Applicant's Proposed Action Alternative southeastward into higher elevations with steeply rolling, forested mountains. In comparison to the Applicant's Proposed Action Alternative, the Interstate 84 Alternative would have lesser amounts of strong project contrast—based on its alignment with the I-84 corridor in lieu of the mostly undeveloped dry farming and range lands crossed by the Applicant's Proposed Action Alternative.

Most of the 11 VAUs visible within 5 miles of this alternative are rated as C scenic quality. Of these VAUs, one has an A scenic quality rating, and three have B scenic quality ratings. The VAU with A scenic quality rating is not within the foreground of this alternative, and would experience a low level of impact. The VAUs with B scenic quality would generally experience strong levels of project contrast, resulting in high impacts within the visible foreground and moderate impacts within the visible middleground. These impacts would result in decreases to the scenic quality rating scores, but would not result in changes in the overall rating of B scenic quality.

Variation S1-A1

This route variation follows the same alignment as the Interstate 84 Alternative, follows the I-84 corridor and then turns southward west of Pendleton, Oregon to a point just south of the Umatilla River Valley. The B2H Project contrast associated with this variation would generally be moderate.

Variation S1-A2

This route variation is colocated with an existing 230-kV wood H-frame transmission line to the south of the Interstate 84 Alternative, crossing the Umatilla River Valley and continuing eastward along the southern edge of the Umatilla River Valley—before rejoining the Interstate 84 Alternative just south of the Umatilla River Valley. Although the B2H Project contrast associated with this variation would be

lower due to its parallel alignment with an existing transmission line, it would have higher impacts on a VAU with B scenic quality (BA-032 Umatilla River).

Effects on Viewers

The Interstate 84 Alternative would have 33.8 miles more of high impacts and 6.7 miles less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects Associated with Residents

Impacts on views from residences associated with this alternative would be high along the I-84 corridor, where the alignment would pass through rural areas that are generally more populated than the lands to the south of the highway. The Interstate 84 Alternative would include more high impacts (42.4 miles) to residential viewers than any other alternative within Segment 1. This alternative would intersect with the alignment of the Applicant's Proposed Action Alternative to the northwest of Pilot Rock City, and follow the same alignment to the southeast for the remainder of this Segment. Impacts on views from residences would therefore be the same as described for the Applicant's Proposed Action Alternative south and east of Pilot Rock City, in the areas near McKay Creek area, and within the Blue Mountains.

This alternative would include minimal impacts on residential Sensitive Viewing Platforms.

Variation S1-A1

This variation follows the same alignment through Link 1-31 as the Interstate 84 Alternative along the I-84 corridor before turning southward at a point several miles west of Pendleton, Oregon. As compared to Variation S1-A2, this alignment would include a greater number of high impacts on residences (6.8 miles) This would affect the foreground of more than twice as many residential views.

Variation S1-A2

As compared to Variation S1-A1, this alignment along Link 1-37 would include a lesser number of high impacts on residences (0.9 mile) and would affect a lesser number of residences. Views from residences in this area would generally be located within the Umatilla River Valley, where this variation would be seen colocated with an existing 230-kV wood H-frame transmission line.

Effects on Recreational Viewers

Although this alternative is approximately 7.2 miles shorter than the Applicant's Proposed Alternative Action, impacts from stationary viewing platforms associated with recreation would be similar to those of the Applicant's Proposed Action Alternative, except that there would be no identifiable impacts associated with Sensitive Viewing Platform 2-17 for this alternative.

There would be minimal impacts on linear viewing platforms or SMAs associated with recreation.

Variation S1-A1

Impacts from stationary viewing platforms associated with recreation would be the same as those described for the Interstate 84 Alternative throughout Link 1-31.

There would be minimal impacts on linear viewing platforms or SMAs associated with recreation.

Variation S1-A2

Impacts on stationary viewing platforms associated with recreation would be the very similar as those described for the Interstate 84 Alternative; however, this variation is colocated with a 230-kV transmission line.

There would be minimal impacts on linear viewing platforms or SMAs associated with recreation.

Effects on Views from Travel Routes

Impacts on the I-84 travel route would be particularly high for this alternative, as the alternative alignment crosses and then closely parallels I-84 for approximately 35 miles through a flat agricultural landscape with relatively few large-scale transmission lines (three existing 69-kV crossings and one existing 230-kV crossing), and no large-scale transmission lines that currently parallel the interstate. Travelers along I-84 would experience brief head-on views where the alternative alignment crosses I-84, followed by approximately 35 miles of parallel views of the alternative alignment on the south side of the roadway. The Interstate 84 Alternative would generally be located within 0.5 mile of I-84, resulting in impacts that are predominately high. Two other travel routes, Interstate-82 and U.S. Highway 395, intersect I-84 via traffic interchanges where the Interstate 84 Alternative would parallel I-84. This occurs in areas where the existing 69-kV and/or 230-kV lines are already visible with 0.5 to 0.75 mile in the flat to rolling agricultural landscape. This Interstate 84 Alternative also crosses State Highway 207 on the south side of its traffic interchange with I-84, where impacts would be high and travelers would experience skylined, head-on views of the B2H Project components. Impacts on travel routes would be the same as those for the Applicant's Proposed Action Alternative for the crossing of U.S. Highway 395 north of Pilot Rock City and the close parallel alignment with I-84 in the Blue Mountains.

Variation S1-A1

Impacts on travel routes for this variation would be the same as those described for the Interstate 84 Alternative.

Variation S1-A2

Impacts on travel routes for this variation would be less than those associated with Variation S1-A1 because this variation alignment would veer away from the I-84 corridor to the south.

Conformance with Management Objectives

The Interstate 84 Alternative would conform with management objectives established for BLM-administered lands. However, there would be areas of non-conformance on USFS lands in the BA-011 Blue Mountains Forest VAU. The areas of non-conformance with VQOs provided in Table 3-21 would include 12 acres of non-conformance with the Retention VQO, 108 acres of noncompliance within the Partial Retention VQO, and 13 acres of non-conformance within the Modification VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Variations S1-A1 and S1-A2

These variations do not cross BLM- and USFS-administered lands.

Interstate 84 – Southern Route Alternative

Effects on Landscape Character and Scenic Quality

Potential effects from this alternative would be similar to those of the Interstate 84 Alternative, except that this alternative would extend to the south of Pilot Rock City (following a similar alignment in this area to the Applicant's Proposed Action – Southern Route Alternative). The Interstate 84 – Southern Route Alternative's southward extension would increase the overall length of the B2H Project by approximately 1.5 miles, and traverse approximately 3 more miles of Class B Landscapes reflected as flat to steeply rolling lands that are mostly undeveloped. This increase in miles of undeveloped lands crossed also would result in more miles of high impacts on landscape character and scenic quality than the Interstate 84 Alternative.

Effects on Viewers

The Interstate 84 – Southern Route Alternative would have 34.0 miles more of high impacts and 3.2 miles less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects Associated with Residents

Impacts on residents would be particularly high along the I-84 corridor, where the alignment would pass through rural areas that are generally more populated than the lands to the south of the highway. This alternative would include the second highest amount of high impacts (41.0 miles) to residential viewers as compared with the other alternatives within Segment 1. Effects on residential viewers from this alternative would generally be the same as those associated with the Interstate 84 Alternative, except that the alignment would extend southward around most of the residences in the Pilot Rock City area, and several residences within the McKay Creek Valley. This alignment would instead be visible from several homes within the Birch Creek Valley, and a residence within the McKay Creek Valley. In the vicinity of both valleys, rolling mountains begin to rise above increasingly narrow and deeply incised agricultural valleys. Views of the B2H Project components from these residences would be partially obstructed by landforms, but generally skylined and in proximity to the residences where visible.

This alternative would include minimal impacts on stationary viewing platforms related to residences.

Effects on Recreational Viewers

Impacts on stationary viewing platforms associated with recreation would be the same as those described for the Interstate 84 Alternative.

There would be minimal impacts on linear viewing platforms or SMAs that are associated with recreation.

Effects on Views from Travel Routes

Impacts on the I-84 travel route would be particularly high, as this alignment crosses and then closely parallels I-84 for approximately 35 miles through a flat agricultural landscape with relatively few large-scale transmission lines (three existing 69-kV crossings and one existing 230-kV crossing), and no large-scale transmission lines that currently parallel the interstate. Those traveling along I-84 would

experience brief head-on views where the alternative alignment crosses I-84, followed by approximately 35 miles of parallel views of the alternative alignment on the south side of the roadway. The Interstate 84 – Southern Route Alternative would generally be located within 0.5 mile of I-84, resulting in impacts that are primarily high. In addition, Interstate-82 and U.S. Highway 395 both join I-84 via traffic interchanges where the alternative route would parallel I-84, albeit in areas where existing 69-kV and/or 230-kV lines are already visible with 0.5 to 0.75 mile in this flat to rolling agricultural landscape. This alternative alignment also crosses State Highway 207 on the south side of its traffic interchange with I-84, where impacts would be high and travelers would experience skylined, head-on views of the B2H Project components. Impacts on travel routes would be the same as those for the Applicant's Proposed Action-Southern Route Alternative for the crossing of U.S. Highway 395 southwest of Pilot Rock City and the close parallel alignment with I-84 in the Blue Mountains.

Conformance with Management Objectives

The Interstate 84 – Southern Route Alternative would conform with management objectives established for BLM-administered lands. However, there would be areas of non-conformance on lands administered by the USFS, occurring within the BA-011 Blue Mountains Forest VAU. The areas of non-conformance with VQOs established in Table 3-418 would include 12 acres of non-conformance with the Retention VQO, 108 acres of noncompliance within the Partial Retention VQO, and 13 acres of non-conformance within the Modification VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Conclusions

Impacts associated with the alternatives and variations in Segment 1 vary based on the types of effects being considered (e.g. landscape character and scenic quality, types of viewers, and conformance with management objectives). Alternatives in Segment 1 generally either extend south of the I-84 corridor (Applicant's Proposed Action Alternative, East of Bombing Range Road, Applicant's Proposed Action – Southern Route, West of Bombing Range Road – Southern Route, and Longhorn alternatives), or follow the I-84 corridor (Interstate 84 Interstate 84 – Southern Route alternatives). The two alternatives that follow I-84 would result in lower impacts on landscape character and scenic quality because these alternatives would traverse agricultural and ranching landscapes that include a higher degree of existing cultural modifications to the landscape than the alternatives that extend south of the interstate. Of the two alternatives that follow I-84, the Interstate 84 Alternative would result in lower impacts on landscape character and scenic quality. While the Variation S1-A2 would be collocated with an existing 230-kV transmission line, it would result in higher impacts on lands with a higher degree of scenic quality (VAU BA-032 Umatilla River). Near the southern end of Segment 1, Variation S1-B2 is collocated with an existing 230-kV transmission line.

Impacts on viewers would be higher for the alternatives that follow the I-84 corridor because I-84 is a major travel corridor, and because there are a higher number of residential viewers that would be affected in that area. Effects on viewers would be lowest for both the Applicant's Proposed Action – Southern Route and West of Bombing Range Road to Southern Route alternatives. Although the Applicant's Proposed Action – Southern Route Alternative would affect a greater number of views from

residents, the West of Bombing Range Road to Southern Route Alternative would affect views from an additional travel route.

Segment 1 also includes alternative routes and variations that would result in non-conformance with VQOs on lands managed by the USFS. The only differences in amount of non-conforming acres would occur between Variations S1-B1 and S1-B2. Variation S1-B1 would have a slightly greater number of non-conforming acres.

SEGMENT 2—BLUE MOUNTAINS

The impacts associated with each alternative and route variation in Segment 2 are described in this section. Supporting information is presented in Table 3-419, Table 3-420, Table 3-421, and Table 3-422. Table 3-420 presents the scenic quality impacts by VAU for each alternative route and route variation within Segment 2, including the acreage within the foreground and middleground of each VAU with views of the B2H Project. The existing scenic quality rating of each VAU also is included in this table, along with the residual scenic quality rating and score for both the foreground and middleground acreage. These residual scenic quality scores are based on the amount of change in score anticipated based on the criteria presented in Table 3-420. Information on potential impacts on viewers is represented in Table 3-419and Table 3-421. More specifically, Table 3-419 presents an overall comparison of impacts on viewers by alternative route and route variation, as measured in miles of high, moderate, and low impacts. The mileages of impacts are associated with the impacts as they relate back to the alignment of each alternative in Segment 2. This table also includes the total mileage of each alignment. Table 3-421 presents impacts on Sensitive Viewing Platforms, along with information regarding conformance with BLM VRM objectives for BLM-related Sensitive Viewing Platforms within Segment 2 Each assessment of conformance also is accompanied by the length of the alternative that can be viewed crossing the associated BLM VRM Class(es).

Conformance with USFS VQOs is presented in Table 3-422. These determinations are based on the expected degree of impact on the landscape character within VAU BA-011 (Blue Mountains Forest), which is the only VAU with USFS lands crossed by the B2H Project in Segment 2. The determinations of conformance with USFS VQOs are based on the criteria provided in Table 3-422.

At the end of this section is a conclusion of the impacts on Segment 2, which provides an overview of impacts as well as to which alternative routes and/or variations would be preferable. Because there are several facets to consider when analyzing potential impacts on visual resources (e.g. landscape character and scenic quality, viewers, and plan conformance), this overview provides preferences associated with each of those facets.

Table 3-419. Residual Impacts on Viewers for Segment 2—Blue Mountains				
Alternative Route	Total Length (miles)	Residual Impacts (miles)		
		High	Moderate	Low
Applicant's Proposed Action	33.8	17.5	15.5	0.8
Variation S2-A1	*2.8*	*2.5*	*0.3*	*0.0*
Variation S2-A2	*2.9*	*0.8*	*1.9*	*0.2*
Variation S2-B1	*3.7*	*1.1*	*2.3*	*0.3*
Variation S2-B2	*3.8*	*0.8*	*1.8*	*1.2*
Variation S2-C1	*9.3*	*1.9*	*7.4*	*0.0*
Variation S2-C2	*8.8*	*6.1*	*2.7*	*0.0*
Variation S2-D1	*2.3*	*0.0*	*2.3*	*2.0*
Variation S2-D2	*2.6*	*0.0*	*1.5*	*2.6*
Variation S2-E1	*12.1*	*1.7*	*0.6*	*0.0*
Variation S2-E2	*12.2*	*1.8*	*0.8*	*0.0*
Glass Hill	33.7	15.7	12.4	5.6
Variation S2-F1	*4.3*	*7.2*	*4.4*	*0.5*
Variation S2-F2	*4.1*	*1.3*	*6.3*	*4.6*
Mill Creek	34.0	12.4	15.9	5.7

Table 3-420. Scenic Quality Impacts by Visual Analysis Unit for Segment 2—Blue Mountains								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-011 Blue Mountain Forest								
Applicant's Proposed Action	13,025	94,339	B (15.0)	High	Low	B (13.5)	B (15.0)	13,025
Variation S2-A1	*2,122*	*43,786*	*B (15.0)*	*High*	*Low*	*B (13.5)*	*B (15.0)*	*2,122*
Variation S2-A2	*2,194*	*43,919*	*B (15.0)*	*High*	*Low*	*B (13.5)*	*B (15.0)*	*2,194*
Variation S2-B1	*2,471*	*50,980*	*B (15.0)*	*High*	*Low*	*B (13.5)*	*B (15.0)*	*2,471*
Variation S2-B2	*2,562*	*50,820*	*B (15.0)*	*High*	*Low*	*B (13.5)*	*B (15.0)*	*2,562*
Variation S2-C1	*6,423*	*61,842*	*B (15.0)*	*High*	*Moderate*	*B (13.5)*	*B (14.0)*	*68,265*
Variation S2-C2	*6,123*	*58,895*	*B (15.0)*	*High*	*Moderate*	*B (13.5)*	*B (14.0)*	*65,018*
Variation S2-E1	*1,585*	*28,187*	*B (15.0)*	*Moderate*	*Low*	*B (14.0)*	*B (15.0)*	*1,585*
Variation S2-E2	*1,421*	*28,350*	*B (15.0)*	*Moderate*	*Low*	*B (14.0)*	*B (15.0)*	*1,421*
Variation S2-F1	*387*	*21,055*	*B (15.0)*	*Moderate*	*Low*	*B (14.0)*	*B (15.0)*	*387*
Variation S2-F2	*314*	*21,089*	*B (15.0)*	*Moderate*	*Low*	*B (14.0)*	*B (15.0)*	*314*

Table 3-420. Scenic Quality Impacts by Visual Analysis Unit for Segment 2—Blue Mountains

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Glass Hill	13,179	94,213	B (15.0)	High	Low	B (13.5)	B (15.0)	13,179
Variation S2-D1	*3,275*	*53,296*	*B (15.0)*	*Moderate*	*Low*	*B (14.0)*	*B (15.0)*	*3,275*
Variation S2-D2	*3,133*	*53,196*	*B (15.0)*	*Moderate*	*Low*	*B (14.0)*	*B (15.0)*	*3,133*
Mill Creek	10,663	88,303	B (15.0)	High	Low	B (13.5)	B (15.0)	10,663
BA-012 Grand Ronde Valley								
Applicant's Proposed Action	0	12,740	C (8.5)	No change	Low	C (8.5)	C (8.5)	0
Variation S2-A1	*Not applicable*							
Variation S2-A2	*Not applicable*							
Variation S2-B1	*Not applicable*							
Variation S2-B2	*Not applicable*							
Variation S2-C1	*0*	*12,719*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S2-C2	*0*	*17,338*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S2-E1	*0*	*3,765*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S2-E2	*0*	*4,320*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S2-F1	*0*	*590*	*C (8.5)*	*No change*	*No change*	*C (8.5)*	*C (8.5)*	*0*
Variation S2-F2	*0*	*590*	*C (8.5)*	*No change*	*No change*	*C (8.5)*	*C (8.5)*	*0*
Glass Hill	0	9,347	C (8.5)	No change	Low	C (8.5)	C (8.5)	0
Variation S2-D1	*0*	*6,462*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S2-D2	*0*	*4,869*	*C (8.5)*	*No change*	*No change*	*C (8.5)*	*C (8.5)*	*0*
Mill Creek	341	28,178	C (8.5)	Moderate	Low	C (7.5)	C (8.5)	341
BA-013 Wallowa Mountains								
Applicant's Proposed Action	0	2,029	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
Variation S2-A1	*Not applicable*							
Variation S2-A2	*Not applicable*							
Variation S2-B1	*Not applicable*							
Variation S2-B2	*Not applicable*							
Variation S2-C1	*Not applicable*							
Variation S2-C2	*Not applicable*							
Variation S2-E1	*Not applicable*							
Variation S2-E2	*Not applicable*							
Variation S2-F1	*0*	*2,029*	*B (18.0)*	*No change*	*Low*	*B (18.0)*	*B (18.0)*	*0*
Variation S2-F2	*0*	*2,912*	*B (18.0)*	*No change*	*Low*	*B (18.0)*	*B (18.0)*	*0*

Table 3-420. Scenic Quality Impacts by Visual Analysis Unit for Segment 2—Blue Mountains

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Glass Hill	0	2,029	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
Variation S2-D1	*Not applicable*							
Variation S2-D2	*Not applicable*							
Mill Creek	0	2,912	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
BA-014 Blue and Wallowa Foothills								
Applicant's Proposed Action	3,826	45,438	B(12.0)	High	Low	C (10.5)	B (12.0)	3,826
Variation S2-A1	*Not applicable*							
Variation S2-A2	*Not applicable*							
Variation S2-B1	*Not applicable*							
Variation S2-B2	*Not applicable*							
Variation S2-C1	*2*	*8,405*	*B (12.0)*	*No change*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S2-C2	*2*	*8,414*	*B (12.0)*	*No change*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S2-E1	*354*	*15,330*	*B (12.0)*	*Low*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S2-E2	*745*	*14,939*	*B (12.0)*	*Low*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S2-F1	*6,707*	*43,582*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*6,707*
Variation S2-F2	*7,380*	*44,064*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*7,380*
Glass Hill	6,826	45,438	B (12.0)	High	Low	C (11.0)	B (12.0)	6,826
Variation S2-D1	*0*	*3,097*	*B (12.0)*	*Low*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S2-D2	*0*	*3,097*	*B (12.0)*	*No change*	*No change*	*B (12.0)*	*B (12.0)*	*0*
Mill Creek	10,043	43,376	B (12.0)	Moderate	Low	C (11.0)	B (12.0)	10,043
BA-015 Baker Valley								
Applicant's Proposed Action	724	19,209	C (9.5)	High	Low	C (8.0)	C (9.5)	724
Variation S2-A1	*Not applicable*							
Variation S2-A2	*Not applicable*							
Variation S2-B1	*Not applicable*							
Variation S2-B2	*Not applicable*							
Variation S2-C1	*Not applicable*							
Variation S2-C2	*Not applicable*							
Variation S2-E1	*0*	*1,290*	*C (9.5)*	*Low*	*Low*	*C (9.5)*	*C (9.5)*	*0*
Variation S2-E2	*0*	*1,290*	*C (9.5)*	*Low*	*Low*	*C (9.5)*	*C (9.5)*	*0*
Variation S2-F1	*724*	*19,209*	*C (9.5)*	*Moderate*	*Low*	*C (8.5)*	*C (9.5)*	*724*
Variation S2-F2	*187*	*18,649*	*C (9.5)*	*Low*	*Low*	*C (9.5)*	*C (9.5)*	*0*

Table 3-420. Scenic Quality Impacts by Visual Analysis Unit for Segment 2—Blue Mountains								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Glass Hill	724	19,209	C (9.5)	High	Low	C (9.5)	C (9.5)	724
Variation S2-D1	*Not applicable*							
Variation S2-D2	*Not applicable*							
Mill Creek	187	18,649	C (9.5)	Low	Low	C (9.5)	C (9.5)	0
BA-016 Pyles Canyon and Thief Valley								
Applicant's Proposed Action	394	6,292	B (16.5)	High	Low	B (15.0)	B (16.5)	394
Variation S2-A1	*Not applicable*							
Variation S2-A2	*Not applicable*							
Variation S2-B1	*Not applicable*							
Variation S2-B2	*Not applicable*							
Variation S2-C1	*Not applicable*							
Variation S2-C2	*Not applicable*							
Variation S2-E1	*Not applicable*							
Variation S2-E2	*Not applicable*							
Variation S2-F1	*394*	*6,292*	*B (16.5)*	*High*	*Low*	*B (15.0)*	*B (16.5)*	*394*
Variation S2-F2	*415*	*6,315*	*B (16.5)*	*High*	*Low*	*B (15.0)*	*B (16.5)*	*415*
Glass Hill	394	6,292	B (16.5)	High	Low	B (15.0)	B (16.5)	394
Variation S2-D1	*Not applicable*							
Variation S2-D2	*Not applicable*							
Mill Creek	415	6,315	B (16.5)	High	Low	B (15.0)	B (16.5)	415
BA-018 Grand Ronde River								
Applicant's Proposed Action	742	4,133	A (21.5)	High	Low	A (20.0)	A (21.5)	4,133
Variation S2-A1	*200*	*4,390*	*A (21.5)*	*High*	*Low*	*A (20.0)*	*A (21.5)*	*4,390*
Variation S2-A2	*147*	*4,443*	*A (21.5)*	*High*	*Low*	*A (20.0)*	*A (21.5)*	*4,443*
Variation S2-B1	*0*	*4,333*	*A (21.5)*	*High*	*Low*	*A (20.0)*	*A (21.5)*	*4,333*
Variation S2-B2	*0*	*4,336*	*A (21.5)*	*High*	*Low*	*A (20.0)*	*A (21.5)*	*4,336*
Variation S2-C1	*0*	*3,329*	*A (21.5)*	*No change*	*Low*	*A (21.5)*	*A (21.5)*	*3,329*
Variation S2-C2	*0*	*3,329*	*A (21.5)*	*No change*	*Low*	*A (21.5)*	*A (21.5)*	*3,329*
Variation S2-E1	*Not applicable*							
Variation S2-E2	*Not applicable*							
Variation S2-F1	*Not applicable*							
Variation S2-F2	*Not applicable*							

Table 3-420. Scenic Quality Impacts by Visual Analysis Unit for Segment 2—Blue Mountains

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Glass Hill	743	3,994	A (21.5)	High	Low	A (20.0)	A (21.5)	743
Variation S2-D1	*0*	*141*	*A (21.5)*	*No change*	*Low*	*A (21.5)*	*A (21.5)*	*0*
Variation S2-D2	*0*	*141*	*A (21.5)*	*No change*	*Low*	*A (21.5)*	*A (21.5)*	*0*
Mill Creek	509	4,366	A (21.5)	High	Low	A (20.0)	A (21.5)	509

Table 3-421. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 2—Blue Mountains

Alternative Route	Residual Impact Level	Visual Resource Management Classes Crossed and Visible	Conformance with Visual Resource Management Objectives (Yes/No)	Visible Miles not in Conformance with Resource Management Objectives
Stationary Sensitive Viewing Platforms				
4-3 Bird Track Springs U.S. Forest Service Campground				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S2-A1	*None*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-A2	*None*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S2-B2	*None*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Low	IV	Yes	0.0
Mill Creek	Low	Not applicable	Not applicable	Not applicable
4-10 City of North Powder				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S2-F1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-F2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Low	Not applicable	Not applicable	Not applicable
4-17 Grande Tour Oregon Tour Route–Thief Valley Reservoir				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S2-F2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Mill Creek	Low	Not applicable	Not applicable	Not applicable
4-19 Hilgard Junction State Park				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S2-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*

Table 3-421. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 2—Blue Mountains				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Glass Hill	Low	Not applicable	Not applicable	Not applicable
Mill Creek	Moderate	Not applicable	Not applicable	Not applicable
4-26 Ladd Marsh Wildlife Area–Foothill Road				
Mill Creek	High	Not applicable	Not applicable	Not applicable
4-28 Morgan Lake Park				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S2-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S2-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	None	IV	Yes	Not applicable
Mill Creek	None	Not applicable	Not applicable	Not applicable
4-32 Oregon Trail Interpretive Park Picnic Area				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S2-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Low	Not applicable	Not applicable	Not applicable
Mill Creek	Low	Not applicable	Not applicable	Not applicable
4-33 Blue Mountain Forest Double Parking Lot				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S2-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Low	Not applicable	Not applicable	Not applicable
Mill Creek	Low	Not applicable	Not applicable	Not applicable
4-40 Spring Creek U.S. Forest Service Campground				
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S2-A1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-A2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Moderate	Not applicable	Not applicable	Not applicable
Mill Creek	Moderate	Not applicable	Not applicable	Not applicable
4-51 City of La Grande				
Variation S2-C2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Mill Creek	High	Not applicable	Not applicable	Not applicable

Table 3-421. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 2—Blue Mountains				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
4-55 Elk Song Ranch				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S2-C1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Mill Creek	Low	Not applicable	Not applicable	Not applicable
5-36 Powder River Wild and Scenic River Corridor–Thief Valley Reservoir Road				
Variation S2-F2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Mill Creek	Low	Not applicable	Not applicable	Not applicable
Linear Sensitive Viewing Platforms				
Hells Canyon				
Variation S2-C2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Mill Creek	Low	Not applicable	Not applicable	Not applicable
Grande Tour Route				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Variation S2-C1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-F1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-F2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Moderate	IV	Yes	0.0
Mill Creek	Low	Not applicable	Not applicable	Not applicable
Grand Tour Scenic Bikeway				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Variation S2-C1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-F1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-F2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Moderate	IV	Yes	0.0
Mill Creek	Low	Not applicable	Not applicable	Not applicable
Powder River Wild and Scenic River/Thief Valley Road				
Variation S2-F2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Interstate 84				
Applicant's Proposed Action	High	IV	Yes	0.0
Variation S2-A1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-B1	*Moderate*	*IV*	*Yes*	*0.0*
Variation S2-B2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*

Table 3-421. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 2—Blue Mountains				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Variation S2-E1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-E2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-F1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-F2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	High	IV	Yes	0.0
Mill Creek	High	Not applicable	Not applicable	Not applicable
State Highway 203				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S2-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Low	IV	Yes	0.0
Mill Creek	Moderate	Not applicable	Not applicable	Not applicable
State Highway 244				
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S2-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-B1	*Moderate*	*IV*	*Yes*	*0.0*
Variation S2-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Moderate	IV	Yes	0.0
Mill Creek	Moderate	Not applicable	Not applicable	Not applicable
U.S. Forest Service Road 21				
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S2-A1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-A2	*Moderate*	*Not applicable*	*Not applicable*	*0.0*
Variation S2-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S2-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Moderate	Not applicable	Not applicable	Not applicable
Mill Creek	Moderate	Not applicable	Not applicable	Not applicable
U.S. Forest Service Road 43 – Ladd Canyon Road				
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S2-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-C2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-E1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S2-E2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Glass Hill	Moderate	Not applicable	Not applicable	Not applicable
Mill Creek	High	Not applicable	Not applicable	Not applicable

Table 3-422. Conformance with U.S. Forest Service Visual Quality Objectives for Visual Analysis Unit BA-011 Blue Mountain Forest in Segment 2—Blue Mountains

Alternative Route	Visual Quality Objective	Conformance	Visual Quality Objectives met by the B2H Project	Acres of Disturbance	Percent of Total Visual Quality Objective within Study corridor
Applicant's Proposed Action	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	21	0.4
	Partial Retention	No	Maximum Modification	18	0.2
	Modification	Not applicable	Not applicable	0	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0
Variation S2-A1	*Preservation*	*Not applicable*	*Not applicable*	*0*	*0.0*
	Retention	*No*	*Maximum Modification*	*21*	*0.4*
	Partial Retention	*No*	*Maximum Modification*	*18*	*0.2*
	Modification	*Not applicable*	*Not applicable*	*0*	*0.0*
	Maximum Modification	*Not applicable*	*Not applicable*	*0*	*0.0*
Variation S2-A2	*Preservation*	*Not applicable*	*Not applicable*	*0*	*0.0*
	Retention	*Not applicable*	*Not applicable*	*0*	*0.0*
	Partial Retention	*No*	*Maximum Modification*	*69*	*0.8*
	Modification	*No*	*Maximum Modification*	*8*	*0.0*
	Maximum Modification	*Not applicable*	*Not applicable*	*0*	*0.0*
Variation S2-B1	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Variation S2-B2	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Variation S2-C1	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				

Table 3-422. Conformance with U.S. Forest Service Visual Quality Objectives for Visual Analysis Unit BA-011 Blue Mountain Forest in Segment 2—Blue Mountains

Alternative Route	Visual Quality Objective	Conformance	Visual Quality Objectives met by the B2H Project	Acres of Disturbance	Percent of Total Visual Quality Objective within Study corridor
Variation S2-C2	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Variation S2-E1	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Variation S2-E2	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Variation S2-F1	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Variation S2-F2	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Glass Hill	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	21	0.4
	Partial Retention	No	Maximum Modification	8	0.2
	Modification	Not applicable	Not applicable	0	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0
Variation S2-D1	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				

Table 3-422. Conformance with U.S. Forest Service Visual Quality Objectives for Visual Analysis Unit BA-011 Blue Mountain Forest in Segment 2—Blue Mountains					
Alternative Route	**Visual Quality Objective**	**Conformance**	**Visual Quality Objectives met by the B2H Project**	**Acres of Disturbance**	**Percent of Total Visual Quality Objective within Study corridor**
Variation S2-D2	*Preservation*	*Does not cross USFS Land*			
	Retention				
	Partial Retention				
	Modification				
	Maximum Modification				
Mill Creek	Preservation	Not applicable	Not applicable	0	0.0
	Retention	Not applicable	Not applicable	0	0.0
	Partial Retention	No	Maximum Modification	69	1.0
	Modification	No	Maximum Modification	8	0.0
	Maximum Modification	Not applicable	Not applicable	0	0.0

Applicant's Proposed Action Alternative

Effects on Landscape Character and Scenic Quality

Extending generally northwest to southeast, this alternative crosses steeply rolling, forested mountains, and rolling sage steppe hills. Of the 7 VAUs visible within 5 miles of this alternative, one has an A scenic quality rating, 4 have a B scenic quality rating, and 2 have a C scenic quality rating (Table 3-420). The B2H Project components would be visible within both the foreground and middleground of the VAU with A scenic quality (BA-018 Grande Ronde River). This VAU would experience a high degree of impact within the foreground where the B2H Project would cross the river and introduce geometric forms on either side of the river through right-of-way vegetation clearing, but this impact would not change the overall rating of A scenic quality. One of the VAUs with B scenic quality would experience a high impact from the visible foreground areas, which would lower that unit's overall rating to C scenic quality.

Variation S2-A1

This route variation (Link 2-5), follows the same alignment as the Applicant's Proposed Action Alternative, through forested lands with Class B scenic quality. The project contrast associated with this variation would be predominately strong, as the B2H Project would cross lands that are forested and mostly undeveloped resulting in a geometrically cleared right-of-way and transmission line structures incongruent with the existing setting.

Variation S2-A2

This route variation (Link 2-7) is located less than 0.5 mile to the southwest of Variation S2-A1 and is located within forested lands with Class B scenic quality. The B2H Project contrast associated with this variation also would be predominately strong, as the alignment crosses lands that are forested and mostly undeveloped. Since Variation S2-A2 is colocated with an existing 230-kV transmission line,

which has already modified the area's setting, impacts on scenic quality from Variation S2-A2 would be slightly less than those described for Variation S2-A1.

Variation S2-B1

This route variation (Link 2-35), follows the same alignment as the Applicant's Proposed Action Alternative, through forested lands with a Class B scenic quality, just southeast of Hilgard Junction State Park. The B2H Project contrast associated with this variation would be predominately high, as the B2H Project components would cross lands that are forested and mostly undeveloped resulting in a geometrically cleared right-of-way and transmission line structures incongruent with the existing setting.

Variation S2-B2

This route variation (Link 2-25) is located approximately 0.5 mile to the north of the Variation S2-B1, through forested lands with Class B scenic quality. The B2H Project contrast associated with this variation would be predominately strong, as the B2H Project would cross lands that are forested and mostly undeveloped. Since Variation S2-B2 is colocated with an existing 230-kV transmission line that has already modified the area's setting, impacts on scenic quality from Variation S2-B2 would be slightly less than those described for Variation S2-B1. For simulation of variation refer to Appendix H3.

Variation S2-C1

This route variation follows the same alignment as the Applicant's Proposed Action Alternative (Links 2-45, 2-47, 2-50), through forested lands near Morgan Lake with a Class B scenic quality. The project contrast associated with this variation would vary from strong to moderate as the alignment crosses lands that are mostly undeveloped and vary from dense forest to open grasslands resulting in a geometrically cleared right-of-way in forested lands and transmission line structures incongruent with the existing setting.

Variation S2-C2

This route variation (Link 2-48) is located approximately 1.5 miles northeast of the Applicant's Proposed Action Alternative. The project contrast and overall degree of impact on scenic quality associated with this variation would be similar to that of Variation S2-C1; however, it is approximately 0.5 mile shorter in length than S2-C1.

Variation S2-E1

This route variation follows the same alignment through Link 2-60 as the Applicant's Proposed Action Alternative, through forested lands paralleling I-84 with a Class B scenic quality. The B2H Project contrast associated with this variation would vary from strong to moderate, as it would cross through alternating patches of dense forest and open grasslands resulting in a geometrically cleared right-of-way in forested lands and transmission line structures incongruent with the existing setting.

Variation S2-E2

This route variation (Link 2-55 and 2-56) would extend east closer to I-84 than Variation S2-E1, through forested lands associated with a Class B scenic quality landscape. The B2H Project contrast associated with this variation would be less than that of Variation S2-E1 because Variation S2-E2

crosses through less forested lands, resulting in less apparent geometric vegetative forms through right-of-way clearing in grasslands, and is generally located within 0.25 mile of an existing 230-kV transmission line that has modified the existing setting.

Variation S2-F1

Because this route variation follows the same alignment from Link 2-75 to Link 2-95, as the Applicant's Proposed Action Alternative, through rolling sage steppe-covered hills and crossing the I-84 corridor north of the City of North Powder, Oregon. The lands that would be crossed include both Class B and Class C landscapes. The project contrast associated with this variation would range from moderate to strong.

Variation S2-F2

This route variation parallels Variation S2-F1 from Link 2-70 to Link 2-90, and is generally within 0.3 mile of that variation. Variation S2-F2 crosses through the same landscape and scenic quality classes as Variation S2-F1 but would result in a lesser degree of B2H Project contrast since Variation S2-F2 is colocated with an existing 230-kV transmission line that has modified the existing setting.

Effects on Views

Approximately 17.5 miles of high impacts and 15.5 miles of moderate impacts on views associated with residents, recreation, and travel routes would be associated with the Applicant's Proposed Action Alternative.

Effects on Residential Views

In general, the highest impacts on residential viewers would be concentrated in four different locations where residences are located from 0.25 mile to 0.5 mile of the route alignment. Residences near Morgan Lake (including residential Sensitive Viewing Platform Sensitive Viewing Platform 4-55, Elk Song Ranch) would experience unobstructed and skylined views of the B2H Project components within flat to rolling landscapes. Along Glass Hill Road, several scattered residences would have intermittent views of the alternative components that would be partially screened by topography and tall evergreen forest vegetation. A residence near I-84 and Heber Road, and another residence on Jimmy Creek Road also would be within 0.5 mile of the Applicant's Proposed Action Alternative. These residences both currently have views of an existing 230-kV transmission line to the northeast. The Applicant's Proposed Action Alternative would, however, pass to the southwest of the residence near I-84 and Heber Road – effectively surrounding the residence with transmission lines within 0.25 to 0.5 mile.

Variation S2-A1

This route variation follows the same alignment of the Applicant's Proposed Action Alternative through the forested landscape of the rolling Blue Mountains. There would be no residences within 0.5 mile of this route variation.

Variation S2-A2

This route variation is located less than 0.5 mile to the southwest of Variation S2-A1. There would be no residences within 0.5 mile of this alternative route, and associated impacts on residential views would be similar to those associated with Variation S2-A1.

Variation S2-B1

This route variation follows the same alignment of the Applicant's Proposed Action Alternative through the forested landscape of the rolling Blue Mountains. There would be no residences with 0.5 mile of this alternative route.

Variation S2-B2

This route variation is located approximately 0.5 mile to the north of the Variation S2-B1. Only one residence would be within 0.5 mile of this route variation. Views from this residence could have skylined views of the B2H Project components; however, these views would likely be screened by tall evergreen forest vegetation that generally surrounds the residence. Impacts on views from residences would be higher than that of Variation S2-B1.

Variation S2-C1

This route variation follows the same alignment as the Applicant's Proposed Action Alternative through the forested landscape of the steeply rolling Blue Mountains, with two residences within 0.5 mile of the route. The northern residence would have inferior, skylined views of the B2H Project components dominating the residence's viewshed. The southernmost residence would have obstructed views of the B2H Project components due to vegetation and topographic screening.

Variation S2-C2

This route variation is located approximately 1.5 miles northeast of the Applicant's Proposed Action Alternative where would be seven residences within 0.5 mile of this route, including Sensitive Viewing Platform 4-55 (Elk Song Ranch). The Elk Song Ranch Sensitive Viewing Platform and nearby residence would have inferior, skylined views of this variation alignment dominating views from this area, while the remaining residences would have their views of the alignment partially to fully obstructed by tall evergreen vegetation.

Variation S2-E1

This route variation follows the same alignment as the Applicant's Proposed Action Alternative through Link 2-60 traversing forested landscape of the rolling Blue Mountains. There would be no residences within 0.5 mile of this route.

Variation S2-E2

This route variation extends east closer to I-84 than S2-E1 Alternative. There would be one residence within 0.5 mile of this route. This residence would have partially skylined views of the B2H Project components

Variation S2-F1

This route variation follows the same alignment as the Applicant's Proposed Action Alternative and crosses landscapes transitioning from steeper rolling mountains to more gentle rolling hills, directly adjacent to agricultural lands. Impacts associated with residences for this variation alignment would include a residence near I-84 and Heber Road and the residence along Jimmy Creek Road. Impacts on these residences would be the same as those discussed for the Applicant's Proposed Action Alternative throughout the shared alignment.

Variation S2-F2

This route variation parallels Variation S2-F1, and is generally within 0.3 mile of that variation. The Variation S2-F2 alignment would result in a lesser degree of impact in comparison to the Variation S2-F1 alignment because the Variation S2-F2 alignment would pass to the northeast of the residence near I-84 and Heber Road, in close co-location with an existing 230-kV transmission line that has modified the existing setting. Impacts on views from the residence along Jimmy Creek Road also would be slightly less than those associated with Variation S2-F1 because the alignment would be slightly farther away from the residence and more closely colocated with the existing 230-kV transmission line.

Effects on Recreational Views

Impacts on views from stationary viewing platforms associated with recreation would include views from Sensitive Viewing Platform 4-19 (Hilgard Junction State Park) and Sensitive Viewing Platform 4-28 (Morgan Lake Park) Views of the B2H Project components from these Sensitive Viewing Platforms would be mostly screened by existing landforms and tall evergreen vegetation, resulting in low degree of impact. Impacts on views from Sensitive Viewing Platform 4-40 (Spring Creek USFS Campground) would be partially screened by tall evergreen forest vegetation. Where visible from this location, impacts would be moderate because the B2H Project components would be skylined from a distance of approximately 0.25 mile.

The Grande Tour Route and the Grande Tour Scenic Bikeway would both be crossed within a rolling sage steppe landscape that includes views of an existing 230-kV transmission line 0.4 mile away and an existing wind farm 2.3 miles away. Impacts on views from these linear Sensitive Viewing Platforms would be moderate due to the existing modifications present in these viewsheds. There would be no identifiable impacts on SMAs that are associated with recreation.

Variation S2-A1

Impacts on views from stationary, linear, and SMAs for this route variation are associated with Sensitive Viewing Platforms 4-40 and 4-19, which would be the same as those described for the Applicant's Proposed Action Alternative.

Variation S2-A2

Impacts on views from stationary, linear, and SMAs for this route variation are associated with Sensitive Viewing Platforms 4-40 and 4-19, which would be similar to those described for the Applicant's Proposed Action Alternative although this variation would be slightly farther away, less than a quarter mile distance, from the foreground of the Sensitive Viewing Platform 4-19.

Variation S2-B1

There would be no high or moderate impacts on stationary or linear Sensitive Viewing Platforms, or SMAs associated with recreation.

Variation S2-B2

There would be no high or moderate impacts on stationary or linear Sensitive Viewing Platforms, or SMAs associated with recreation.

Variation S2-C1

There would be no high or moderate impacts on stationary or linear Sensitive Viewing Platforms, or SMAs associated with recreation.

Variation S2-C2

There would be high impacts on views from Sensitive Viewing Platform 4-28 (Morgan Lake Park)because there would be continuous, skylined views of the B2H Project components from a distance of less than 0.3 mile dominating the viewshed. There would be no high or moderate impacts on linear Sensitive Viewing Platforms or SMAs that are associated with recreation.

Variation S2-E1

There would be no identifiable impacts on views associated with recreation.

Variation S2-E2

There would be no identifiable impacts on views associated with recreation.

Variation S2-F1

There would be no identifiable impacts on stationary Sensitive Viewing Platforms associated with recreation within 0.5 mile of route. Impacts on linear Sensitive Viewing Platforms for this variation alignment would be the same as those described for Applicant's Proposed Action Alternative regarding the Grande Tour Route and Grande Tour Scenic Bikeway. There would be no identifiable impacts on SMAs that are associated with recreation.

Variation S2-F2

There would be no identifiable impacts on stationary Sensitive Viewing Platforms associated with recreation within 0.5 mile of route. Impacts on linear Sensitive Viewing Platforms for this variation alignment would be associated with the Grande Tour Route and Grande Tour Scenic Bikeway, which share the same alignment in this location. Viewers traveling this route would experience head-on views of Variation S2-F2 in a rolling sage steppe landscape. The variation is colocated with an existing 230-kV transmission line within this area. Views from this route also include wind turbines within approximately 2 miles of the variation alignment, and impacts on the Grande Tour Route and Grande Tour Scenic Bikeway would be low due the extent of existing development that has modified these viewers' viewshed. There would be no identifiable impacts on SMAs that are associated with recreation.

Effects on Views from Travel Routes

Views from I-84 would be highly affected, as the alternative alignment crosses the viewing platform at an angle within a rolling sage steppe valley. Viewers would have head-on, skylined views of the B2H Project components dominating the interstate's viewshed. Viewers also would experience parallel views of the B2H Project components at distance of approximately 0.5 mile, though these views would be partially obstructed by tall evergreen trees within a wooded landscape.

Impacts on views from travel routes would be moderate for three travel routes crossed by the Applicant's Proposed Action Alternative. B2H Project components would be located within 0.2 mile of USFS Road 21, but views from this platform would be partially obstructed by tall evergreen trees within this forested landscape. Views of the B2H Project components from State Highway 244 would be from within a narrow, partially wooded valley. The Applicant's Proposed Action Alternative is expected to span the valley and highway perpendicularly, and would be viewed in addition to an existing 230-kV transmission line that currently spans the valley and has modified the highway's viewshed. Travelers on USFS Road 43-Ladd Canyon Road would experience moderate impacts from within a narrow, wooded canyon. The Applicant's Proposed Action Alternative is expected to span this valley with views of the B2H Project components mostly obstructed by topography and tall evergreen trees.

Variation S2-A1

Impacts associated with views from USFS Service Road 21 would be the same as those described for the Applicant's Proposed Action Alternative. Parallel views from I-84 would be moderately affected because the B2H Project components would be visible at a distance of approximately 0.4 mile partially screened by topography and tall evergreen trees.

Variation S2-A2

Impacts associated with USFS Service Road 21 would be the same as those described for the Applicant's Proposed Action Alternative. Parallel views from I-84 would be less affected than views of Variation S2-A1 because the B2H Project components would be located further from the viewing platform, and views would be mostly obstructed and backdropped by tall evergreen trees in this forested landscape.

Variation S2-B1

Views of the B2H Project components from State Highway 244 would be inferior, and would include skylined views that would be partially screened by tall evergreen trees.

Variation S2-B2

Impacts associated with this variation would be similar to those described for Variation S2-B1 although it is approximately 0.5 mile closer to Sensitive Viewing Platform I-84.

Variation S2-C1

Views from travel routes would not be highly or moderately affected by the B2H Project along this variation.

Variation S2-C2

Although the variation runs approximately 1.5 miles closer to Sensitive Viewing Platform I-84, views from travel routes would not be highly or moderately affected by the B2H Project along this variation.

Variation S2-E1

Travelers on Interstate 84 would have views of the B2H Project from a distance as close as 0.3 mile. Views of the B2H Project components within this rolling, partially wooded valley also would include an existing 230-kV transmission line within 0.2 mile of the Variation S2-E1 alignment. Views from this travel route would experience moderate impacts since the existing transmission line has modified existing views from the interstate.

Variation S2-E2

Impacts on views from I-84 would be less than those described for Variation S2-E1 because Variation S2-E2 is located farther away from I-84 and would be partially screened by clusters of tall evergreen trees.

Variation S2-F1

Views from I-84 would experience high impacts, as the alternative alignment crosses the viewing platform at an angle within a rolling sage steppe valley. Viewers would have head-on, skylined views of the B2H Project components dominating the viewshed.

Variation S2-F2

Impacts on views from I-84 would be less than that of Variation S2-F1 because Variation S2-F2 is colocated with an existing 230-kV transmission line where it crosses I-84 reducing the level of contrast introduced by the B2H Project.

Conformance with Management Objectives

If the Applicant's Proposed Action Alternative were selected, the B2H Project would conform to management objectives for BLM-administered lands. However, there would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU. The areas of non-conformance with VQOs established in Table 3-422 would include 21 acres of non-conformance with the Retention VQO and 18 acres of noncompliance with the Partial Retention VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Variation S2-A1

Conformance with USFS management objectives associated with this route variation would be the same as described for of the Applicant's Proposed Action Alternative. This variation does not cross BLM-administered land.

Variation S2-A2

There would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU, and the acres of non-conformance with USFS management objectives would be greater than that of Variation S2-A2. This occurrence would include 69 acres of non-conformance in the Partial Retention VQO and 8 acres of non-conformance in the Modification VQO. Areas of non-conformance

with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4. This variation does not cross BLM-administered land.

Variations S2-B1, S2-B2

These variations do not cross USFS-administered land and would conform to BLM management objectives.

Variations S2-C1, S2-C2,

These variations do not cross BLM- or USFS-administered land.

Variations S2-E1, S2-E2, S2-F1, and S2-F2

These variations do not cross USFS land and would conform to BLM management objectives.

Glass Hill Alternative

Effects on Landscape Character and Scenic Quality

Similar to the Applicant's Proposed Action Alternative, this route extends generally northwest to southeast, through steeply rolling, forested mountains, and rolling sage steppe hills and is approximately the same length. The Glass Hill Alternative crosses the same 7 VAUs that the Applicant's Proposed Action Alternative crosses, with a similar degree of impact on each VAU.

Variation S2-D1

This route variation follows the same alignment through Links 2-42 and 2-47 as the Glass Hill Alternative, through forested lands that are associated with B scenic quality. The B2H Project contrast associated with this variation would be predominately strong, as the B2H Project crosses lands that are forested and mostly undeveloped resulting in a geometrically cleared right-of-way and transmission line structures incongruent with the existing setting.

Variation S2-D2

This route variation is located up to 0.9 mile to the south of Variation S2-D1, with similar impacts on scenic quality.

Effects on Views

The Glass Hill Alternative would have 1.8 miles less of high impacts and 3.1 miles less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

Impacts on residential views associated with the Glass Hill Alternative would be similar to those described for the Applicant's Proposed Action Alternative, except that the Glass Hill Alternative would not impact the Elk Song Ranch Sensitive Viewing Platform (4-55) or nearby residence.

Variation S2-D1

This route variation follows the same alignment as the Glass Hill Alternative, and would not have any residences within 0.5 mile of the route but would be closer to the residences on Glass Hill Road than variation S2-D2.

Variation S2-D2

Similar to Variation S2-D1, this variation would not have any residences within 0.5 mile of the route.

Effects on Recreational Views

The impacts from this route would be similar to those of the Applicant's Proposed Action Alternative, except that the Glass Hill Alternative would not impact views from Sensitive Viewing Platform 4-28 (Morgan Lake Park).

Variation S2-D1

This route would not have any impacts on views associated with Sensitive Viewing Platforms related to recreation.

Variation S2-D2

This route would not have any impacts on views associated with Sensitive Viewing Platforms related to recreation.

Effects on Views from Travel Routes

Impacts on travel routes are the same as the Applicant's Proposed Action Alternative since the alternatives share the same alignment in proximity to Interstate 84, State Highway 244, USFS Road 21, and USFS Road 43 – Ladd Canyon Road.

Variations S2-D1 and S2-D2

These variations would not impact views from travel routes.

Conformance with Management Objectives

If the Glass Hill Alternative is selected, the B2H Project would conform to management objectives for BLM-administered lands. However, there would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU. The areas of non-conformance with VQOs established in Table 3-422 would include 21 acres of non-conformance with the Retention VQO and 8 acres of noncompliance with the Partial Retention VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Variations S2-D1 and S2-D2

These variations do not cross BLM- or USFS-administered lands.

Mill Creek Alternative

Effects on Landscape Character and Scenic Quality

Similar to the Applicant's Proposed Action Alternative, this route extends generally northwest to southeast, crossing steeply rolling, forested mountains and rolling sage steppe hills and is approximately the same length. The Mill Creek Alternative crosses the same 7 VAUs as the Applicant's Proposed Action Alternative, but would have lesser impacts because it is colocated with an existing 230-kV transmission line (Table 3-420). The single VAU with A scenic quality, BA-018 Grande Ronde River, would experience high impacts from the Mill Creek Alternative due to right-of-way vegetation clearing on either side of the river generating geometric forms that would change the scenic quality

score, but not change the overall classification of Class A scenery. One of the four VAUs with B scenic quality would experience moderate impacts on scenic quality, which would lower the scenic quality rating score, and lower the overall classification to Class C, where visible.

Effects on Views

The Mill Creek Alternative would have 5.1 miles less of high impacts and 0.4 mile more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

The Mill Creek Alternative would have higher impacts on residences than either the Applicant's Proposed Action Alternative or the Glass Hill Alternative because the Mill Creek Alternative would extend closer to the City of La Grande, Oregon and affect a higher number of residences. The highest impacts on residences would generally occur in six different locations, including the Rock Creek Canyon area, the La Grande area, the Foothill Road area, the Ladd Canyon area, the residence near I-84 and Heber Road, and the residence along Jimmy Creek Road – where residences would be within 0.5 mile of the Mill Creek Alternative alignment. Views from the residences in the Rock Creek Canyon area and La Grande area (including the City of La Grande Sensitive Viewing Platform – 4-51) would generally include skylined views that would be partially to fully screened by tall evergreen vegetation but where visible, the B2H Project would dominate these views. The residences in the Foothill Road and Ladd Canyon areas would experience continuous, skylined views of the B2H Project components from inferior viewing positions. Impacts on the residence near I-84 and Heber Road, and the residence along Jimmy Creek Road would be the same as those described for Variation S2-F2.

Effects on Recreational Views

Impacts on views from stationary Sensitive Viewing Platforms would be associated with Sensitive Viewing Platform 4-19 (Hilgard Junction State Park), Sensitive Viewing Platform 4-40 (Spring Creek USFS Campground) and Sensitive Viewing Platform 4-26 (Ladd Marsh Wildlife Area-Foothill Road). Impacts on the views from Sensitive Viewing Platform 4-19 and Sensitive Viewing Platform 4-40 would both be moderate, including skylined views that would be partially obstructed by tall evergreen trees, and where the alternative route is colocated with an existing 230-kV transmission line that has modified the existing setting. Views from Sensitive Viewing Platform 2-26 would include skylined views from an inferior viewing location at a distance of less than 0.4 mile. Although the Mill Creek Alternative is colocated with an existing 230-kV transmission line in this area, the relative scale of the B2H Project components would result in a high impact from Sensitive Viewing Platform 2-26. Impacts on views from linear Sensitive Viewing Platforms would be related to the Grande Tour Route and Grande Tour Scenic Bikeway. These impacts would be the same as those discussed for Variation S2-F2. This alternative would not have an impact on views from SMAs associated with recreation.

Effects on Views from Travel Routes

Impacts associated with this alternative would be similar to the Applicant's Proposed Alternative except for views from I-84 and State Highway 203. The Mill Creek Alternative crosses Interstate 84 three

times, including two crossings in Ladd Canyon resulting in high impacts. Views from State Highway 203 would be moderately affected since this alternative, and associated vegetation clearing in the right-of-way, would attract attention of motorists on the highway.

Conformance with Management Objectives

If the Mill Creek Alternative is selected, the B2H Project would conform to management objectives for BLM-administered lands. However, there would be areas of non-conformance on USFS-administered lands in the BA-011 Blue Mountains Forest VAU. The areas of non-conformance with VQOs established in the Wallowa-Whitman National Forest LRMP would include 8 acres of non-conformance with the Modification VQO and 69 acres of noncompliance with the Partial Retention VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Conclusions

Impacts associated with the alternatives and variations within Segment 2 vary based on the types of effects being considered (e.g. landscape character and scenic quality, types of viewers, and conformance with management objectives). While both the Applicant's Proposed Action Alternative and Glass Hill alternatives cross partially forested lands that are mostly undeveloped, the Mill Creek Alternative is mostly colocated with right-of-way clearings for an existing 230-kV transmission line, or an existing pipeline. The Mill Creek Alternative would result in lesser impact on landscape character and scenic quality because the proposed transmission features and right-of-way clearings would be similar to those of the existing right-of-way clearings and transmission lines and structures within the right-of-way for the 230-kV transmission line. However, the Mill Creek Alternative would have the highest impact on viewers based on its closer proximity and visibility from travel routes and residential viewers, including a high number of viewers in and around the City of La Grande, Oregon. The Applicant's Proposed and Glass Hill alternatives would primarily follow the same alignment, but the Applicant's Proposed Alternative would pass closer, and be visible, to the recreational viewers at Morgan Lake (Sensitive Viewing Platform 4-28). There would be no significant differences in impacts on viewers when comparing the two variations associated with the Glass Hill Alternative (variations S2-D1 and S2-D2).

All three of the alternatives in Segment 2 would include non-conformance with USFS VQOs. The Glass Hill Alternative however, would have fewer acres of non-conformance.

SEGMENT 3—BAKER VALLEY

The following narrative discussions describe the impacts associated with each alternative in Segment 3. Additional details regarding these analyses can be found in Table 3-423, Table 3-424, Table 3-425, and Table 3-426. Table 3-424 presents the scenic quality impacts by VAU for each alternative route and route variation within Segment 3. This table includes the acreage within the foreground and middleground of each VAU that would have views of each alternative alignment. The existing scenic quality rating of each VAU also is included in this table, along with the residual scenic quality rating and

score for both the foreground and middleground acreage. These residual scenic quality scores are based on the amount of change in score anticipated based on the criteria presented in Table 3-424.

Potential impacts on viewers are represented in Table 3-423 and Table 3-425. Table 3-423 presents an overall comparison of impacts on viewers, as measured in miles of high, moderate, and low impacts. The mileages of impacts are associated with the impacts as they relate back to the alignment of each alternative in Segment 3. This table also includes the total mileage of each alignment. Table 3-425 presents specific impacts anticipated from Sensitive Viewing Platforms, along with the status of conformance with BLM VRM objectives for BLM-related Sensitive Viewing Platforms within Segment 3. Each assessment of conformance also is accompanied by the length of the alternative that can be viewed crossing the associated BLM VRM Class(es).

Conformance with USFS VQOs are presented in Table 3-426. These determinations are based on the expected degree of impact on the landscape character within VAU BA-013 (Wallowa Mountains) and VAU BA-014 (Blue and Wallowa Foothills) which are the only VAUs with USFS lands that are crossed by the B2H Project in Segment 3. The determinations of conformance with USFS VQOs are based on the criteria provided in Table 3-426.

At the end of this section is a conclusion of the impacts on Segment 3, which provides an overview of impacts as well as to which alternative routes and/or variations would be preferable. Because there are several facets to consider when analyzing potential impacts on visual resources (e.g. landscape character and scenic quality, viewers, and plan conformance), this overview provides preferences associated with each of those facets.

Table 3-423. Residual Impacts on Viewers for Segment 3—Baker Valley

Alternative Route	Total Length (miles)	Residual Impacts (miles)		
		High	Moderate	Low
Applicant's Proposed Action	55.2	28.9	17.6	8.7
Variation S3-A1	*12.4*	*0.0*	*5.7*	*6.7*
Variation S3-A2	*12.2*	*0.0*	*1.3*	*10.9*
Variation S3-B1	*13.9*	*4.2*	*8.4*	*1.3*
Variation S3-B2	*14.4*	*6.6*	*7.5*	*0.3*
Variation S3-B3	*14.7*	*6.4*	*6.7*	*1.6*
Variation S3-B4	*14.3*	*5.2*	*6.9*	*2.2*
Variation S3-B5	*14.0*	*6.3*	*7.5*	*0.2*
Variation S3-C1	*21.1*	*17.4*	*3.0*	*0.7*
Variation S3-C2	*21.7*	*19.3*	*1.7*	*0.7*
Variation S3-C3	*21.1*	*16.2*	*4.9*	*0.0*
Variation S3-C4	*21.4*	*15.7*	*5.7*	*0.0*
Variation S3-C5	*21.0*	*8.1*	*8.7*	*4.2*
Variation S3-C6	*24.7*	*13.8*	*6.1*	*4.8*
Flagstaff A	55.3	31.0	16.7	7.6
Timber Canyon	70.3	56.3	10.2	3.8

Table 3-423. Residual Impacts on Viewers for Segment 3—Baker Valley				
Alternative Route	Total Length (miles)	Residual Impacts (miles)		
		High	Moderate	Low
Flagstaff A – Burnt River Mountain	55.3	29.8	18.6	6.9
Flagstaff B	56.0	31.1	15.9	9.0
Flagstaff B – Burnt River West	55.7	21.8	17.2	16.7
Flagstaff B – Durkee	59.6	27.5	19.0	13.1

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-010 Eagle Creek								
Applicant's Proposed Action	Not applicable							
Variation S3-A1	*Not applicable*							
Variation S3-A2	*Not applicable*							
Variation S3-B1	*Not applicable*							
Variation S3-B2	*Not applicable*							
Variation S3-B3	*Not applicable*							
Variation S3-B4	*Not applicable*							
Variation S3-B5	*Not applicable*							
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	*Not applicable*							
Timber Canyon	1,897	6,108	A (22.0)	High	Low	A (20.5)	A (22.0)	1,897
Flagstaff A – Burnt River Mountain	Not applicable							
Flagstaff B	Not applicable							
Flagstaff B – Burnt River West	Not applicable							
Flagstaff B – Durkee	Not applicable							

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-013 Wallowa Mountains								
Applicant's Proposed Action	0	523	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
Variation S3-A1	*0*	*523*	*B (18.0)*	*No change*	*Low*	*B (18.0)*	*B (18.0)*	*0*
Variation S3-A2	*0*	*898*	*B (18.0)*	*No change*	*Low*	*B (18.0)*	*B (18.0)*	*0*
Variation S3-B1	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-B2	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-B3	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-B4	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-B5	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-C1	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-C2	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-C3	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-C4	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-C5	*Not applicable*		*B (18.0)*	*Not applicable*				
Variation S3-C6	*Not applicable*		*B (18.0)*	*Not applicable*				
Flagstaff A	0	523	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
Timber Canyon	15,712	56,574	B (18.0)	High	Low	B (16.5)	B (18.0)	0
Flagstaff A – Burnt River Mountain	0	523	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
Flagstaff B	0	523	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
Flagstaff B – Burnt River West	0	898	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
Flagstaff B – Durkee	0	523	B (18.0)	No change	Low	B (18.0)	B (18.0)	0
BA-014 Blue and Wallowa Foothills								
Applicant's Proposed Action	24,997	117,304	B (12.0)	Moderate	Low	C (11.0)	B (12.0)	24,997
Variation S3-A1	*7,481*	*55,260*	*B (12.0)*	*Moderate*	*Low*	*C (10.5)*	*B (12.0)*	*7,481*
Variation S3-A2	*7,691*	*55,453*	*B (12.0)*	*Moderate*	*Low*	*C (10.5)*	*B (12.0)*	*7,691*
Variation S3-B1	*8,363*	*61,273*	*B (12.0)*	*High*	*Moderate*	*C (10.5)*	*C (11.0)*	*69,636*
Variation S3-B2	*6,407*	*64,770*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*71,177*
Variation S3-B3	*6,376*	*65,443*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*71,819*
Variation S3-B4	*5,603*	*65,601*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*71,204*
Variation S3-B5	*5,686*	*64,799*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*70,485*
Variation S3-C1	*5,000*	*33,144*	*B (12.0)*	*High*	*Low*	*C (10.5)*	*B (12.0)*	*5,000*
Variation S3-C2	*4,999*	*33,145*	*B (12.0)*	*High*	*Low*	*C (10.5)*	*B (12.0)*	*4,999*

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Variation S3-C3	*5,345*	*32,799*	*B (12.0)*	*High*	*Low*	*C (10.5)*	*B (12.0)*	*5,345*
Variation S3-C4	*5,089*	*33,054*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*5,089*
Variation S3-C5	*3,3233*	*36,488*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*3,3233*
Variation S3-C6	*2,109*	*39,692*	*B (12.0)*	*Moderate*	*Low*	*C (11.0)*	*B (12.0)*	*2,109*
Flagstaff A	22,318	121,074	B (12.0)	High	Moderate	C (10.5)	C (11.0)	143,392
Timber Canyon	5,449	71,479	B (12.0)	High	Low	C (10.5)	B (12.0)	5,449
Flagstaff A – Burnt River Mountain	22,663	120,729	B (12.0)	Low	Low	B (12.0)	B (12.0)	0
Flagstaff B	23,007	121,718	B (12.0)	Low	Low	B (12.0)	B (12.0)	0
Flagstaff B – Burnt River West	21,450	125,255	B (12.0)	Low	Low	B (12.0)	B (12.0)	0
Flagstaff B – Durkee	20,117	128,267	B (12.0)	Low	Low	B (12.0)	B (12.0)	0
BA-015 Baker Valley								
Applicant's Proposed Action	882	42,851	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	882
Variation S3-A1	*845*	*38,558*	*C (9.5)*	*High*	*Low*	*C (7.0)*	*C (9.5)*	*845*
Variation S3-A2	*567*	*36,564*	*C (9.5)*	*High*	*Low*	*C (7.0)*	*C (9.5)*	*567*
Variation S3-B1	*300*	*23,769*	*C (9.5)*	*High*	*Low*	*C (7.0)*	*C (9.5)*	*300*
Variation S3-B2	*1,951*	*64,770*	*C (9.5)*	*High*	*Moderate*	*C (7.0)*	*C (8.5)*	*66,721*
Variation S3-B3	*1,951*	*64,770*	*C (9.5)*	*High*	*Moderate*	*C (7.0)*	*C (8.5)*	*66,721*
Variation S3-B4	*2,394*	*28,295*	*C (9.5)*	*High*	*Moderate*	*C (7.0)*	*C (8.5)*	*30,689*
Variation S3-B5	*2,316*	*27,906*	*C (9.5)*	*High*	*Moderate*	*C (7.0)*	*C (8.5)*	*30,222*
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	2,896	46,825	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	2,896
Timber Canyon	0	12,558	C (9.5)	No change	Low	C (9.5)	C (9.5)	0
Flagstaff A – Burnt River Mountain	2,896	46,825	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	2,896
Flagstaff B	2,552	47,231	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	2,552
Flagstaff B – Burnt River West	2,277	45,392	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	2,277
Flagstaff B – Durkee	2,552	47,231	C (9.5)	Moderate	Low	C (8.5)	C (9.5)	2,552

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-016 Pyles Canyon and Thief Valley								
Applicant's Proposed Action	0	7,563	B (16.5)	No change	Low	B (16.5)	B (16.5)	0
Variation S3-A1	*0*	*7,563*	*B (16.5)*	*No change*	*Low*	*B (16.5)*	*B (16.5)*	*0*
Variation S3-A2	*14*	*7,612*	*B (16.5)*	*Low*	*Low*	*B (16.5)*	*B (16.5)*	*0*
Variation S3-B1	*0*	*18*	*B (16.5)*	*No change*	*Low*	*B (16.5)*	*B (16.5)*	*0*
Variation S3-B2	*0*	*18*	*B (16.5)*	*No change*	*Low*	*B (16.5)*	*B (16.5)*	*0*
Variation S3-B3	*0*	*18*	*B (16.5)*	*No change*	*Low*	*B (16.5)*	*B (16.5)*	*0*
Variation S3-B4	*0*	*18*	*B (16.5)*	*No change*	*Low*	*B (16.5)*	*B (16.5)*	*0*
Variation S3-B5	*0*	*18*	*B (16.5)*	*No change*	*Low*	*B (16.5)*	*B (16.5)*	*0*
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	0	7,563	B (16.5)	No change	Low	B (16.5)	B (16.5)	0
Timber Canyon	763	6,234	B (16.5)	High	Low	B (16.5)	B (16.5)	0
Flagstaff A – Burnt River Mountain	2,896	46,825	B (16.5)	No change	Low	B (16.5)	B (16.5)	0
Flagstaff B	0	7,563	B (16.5)	No change	Low	B (16.5)	B (16.5)	0
Flagstaff B – Burnt River West	14	7,612	B (16.5)	No change	Low	B (16.5)	B (16.5)	0
Flagstaff B – Durkee	0	7,563	B (16.5)	No change	Low	Not applicable		
BA-019 Lower Powder Valley								
Applicant's Proposed Action	0	5,423	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Variation S3-A1	*0*	*860*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-A2	*0*	*875*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B1	*0*	*5,423*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B2	*0*	*1,278*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B3	*0*	*1,278*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B4	*0*	*1,273*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B5	*0*	*1,225*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	0	1,225	C (10.5)	No change	Low	Not applicable		
Timber Canyon	Not applicable		C (10.5)	Not applicable				
Flagstaff A – Burnt River Mountain	0	7,563	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Flagstaff B	0	1,278	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Flagstaff B – Burnt River West	0	1,293	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Flagstaff B – Durkee	0	1,278	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
BA-020 Bowen Valley								
Applicant's Proposed Action	Not applicable							
Variation S3-A1	*Not applicable*							
Variation S3-A2	*Not applicable*							
Variation S3-B1	*Not applicable*							
Variation S3-B2	*0*	*1,112*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*Not applicable*
Variation S3-B3	*0*	*1,112*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*Not applicable*
Variation S3-B4	*0*	*1,112*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*Not applicable*
Variation S3-B5	*0*	*1,112*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*Not applicable*
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	0	1,112	C (10.5)	No change	*Low*	C (10.5)	C (10.5)	Not applicable
Timber Canyon	Not applicable							
Flagstaff A – Burnt River Mountain	0	1,225	C (10.5)	No change	*Low*	C (10.5)	C (10.5)	Not applicable
Flagstaff B	0	1,112	C (10.5)	No change	*Low*	C (10.5)	C (10.5)	Not applicable
Flagstaff B – Burnt River West	0	1,112	C (10.5)	No change	*Low*	C (10.5)	C (10.5)	Not applicable
Flagstaff B – Durkee	0	1,112	C (10.5)	No change	*Low*	C (10.5)	C (10.5)	Not applicable

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-021 Virtue Flat								
Applicant's Proposed Action	593	7,778	C (10.5)	Moderate	Low	C (10.5)	C (10.5)	0
Variation S3-A1	*0*	*317*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-A2	*0*	*317*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B1	*593*	*7,778*	*C (10.5)*	*Moderate*	*Low*	*C (9.5)*	*C (10.5)*	*593*
Variation S3-B2	*0*	*5,603*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B3	*0*	*5,603*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B4	*0*	*5,093*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-B5	*0*	*5,148*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	0	5,547	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Timber Canyon	Not applicable							
Flagstaff A – Burnt River Mountain	0	5,547	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Flagstaff B	0	6,002	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Flagstaff B – Burnt River West	0	6,002	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Flagstaff B – Durkee	0	6,002	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
BA-022 Eagle Valley								
Applicant's Proposed Action	Not applicable							
Variation S3-A1	*Not applicable*							
Variation S3-A2	*Not applicable*							
Variation S3-B1	*Not applicable*							
Variation S3-B2	*Not applicable*							
Variation S3-B3	*Not applicable*							
Variation S3-B4	*Not applicable*							
Variation S3-B5	*Not applicable*							
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	Not applicable							
Timber Canyon	1,484	8,311	B (13.0)	High	Low	C (11.5)	B (13.0)	1,484
Flagstaff A – Burnt River Mountain	Not applicable							
Flagstaff B	Not applicable							
Flagstaff B – Burnt River West	Not applicable							
Flagstaff B – Durkee	Not applicable							
BA-023 Eagle Valley Foothills								
Applicant's Proposed Action	Not applicable							
Variation S3-A1	*Not applicable*							
Variation S3-A2	*Not applicable*							
Variation S3-B1	*Not applicable*							
Variation S3-B2	*Not applicable*							
Variation S3-B3	*Not applicable*							
Variation S3-B4	*Not applicable*							
Variation S3-B5	*Not applicable*							
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	Not applicable							
Timber Canyon	5,798	35,121	B (13.5)	High	Moderate	B (12.0)	B (12.5)	5,798
Flagstaff A – Burnt River Mountain	Not applicable							
Flagstaff B	Not applicable							
Flagstaff B – Burnt River West	Not applicable							
Flagstaff B – Durkee	Not applicable							

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-024 Sutton Creek								
Applicant's Proposed Action	0	3,911	C (9.5)	No change	Low	C (9.5)	C (9.5)	0
Variation S3-A1	*Not applicable*							
Variation S3-A2	*Not applicable*							
Variation S3-B1	*0*	*3,911*	*C (9.5)*	*No change*	*Low*	*C (9.5)*	*C (9.5)*	*0*
Variation S3-B2	*1,330*	*2,580*	*C (9.5)*	*High*	*Moderate*	*C (8.0)*	*C (8.5)*	*3,910*
Variation S3-B3	*1,525*	*2,386*	*C (9.5)*	*High*	*Moderate*	*C (8.0)*	*C (8.5)*	*3,911*
Variation S3-B4	*1,535*	*2,386*	*C (9.5)*	*High*	*Moderate*	*C (8.0)*	*C (8.5)*	*3,911*
Variation S3-B5	*1,330*	*2,580*	*C (9.5)*	*High*	*Moderate*	*C (8.0)*	*C (8.5)*	*3,910*
Variation S3-C1	*Not applicable*							
Variation S3-C2	*Not applicable*							
Variation S3-C3	*Not applicable*							
Variation S3-C4	*Not applicable*							
Variation S3-C5	*Not applicable*							
Variation S3-C6	*Not applicable*							
Flagstaff A	1,330	2,580	C (9.5)	High	Low	C (8.0)	C (9.5)	1,330
Timber Canyon	Not applicable							
Flagstaff A – Burnt River Mountain	1,330	2,580	C (9.5)	High	Low	C (8.0)	C (9.5)	1,330
Flagstaff B	1,525	2,386	C (9.5)	High	Low	C (8.0)	C (9.5)	1,525
Flagstaff B – Burnt River West	1,525	2,386	C (9.5)	High	Low	C (8.0)	C (9.5)	1,525
Flagstaff B – Durkee	1,525	2,386	C (9.5)	High	Low	C (8.0)	C (9.5)	1,525
BA-025 Juniper and Sugarloaf Mountains								
Applicant's Proposed Action	4,698	80,581	B (17.5)	High	Moderate	B (16.0)	B (16.5)	4,698
Variation S3-A1	*Not applicable*							
Variation S3-A2	*Not applicable*							
Variation S3-B1	*0*	*4,135*	*B (17.5)*	*No change*	*Low*	*B (17.5)*	*B (17.5)*	*0*
Variation S3-B2	*0*	*4,236*	*B (17.5)*	*No change*	*Low*	*B (17.5)*	*B (17.5)*	*0*
Variation S3-B3	*0*	*4,236*	*B (17.5)*	*No change*	*Low*	*B (17.5)*	*B (17.5)*	*0*
Variation S3-B4	*0*	*4,236*	*B (17.5)*	*No change*	*Low*	*B (17.5)*	*B (17.5)*	*0*
Variation S3-B5	*0*	*4,236*	*B (17.5)*	*No change*	*Low*	*B (17.5)*	*B (17.5)*	*0*
Variation S3-C1	*4,698*	*76,795*	*B (17.5)*	*High*	*Moderate*	*B (16.0)*	*B (16.5)*	*4,698*
Variation S3-C2	*4,509*	*79,566*	*B (17.5)*	*High*	*Moderate*	*B (16.0)*	*B (16.5)*	*4,509*

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Variation S3-C3	*4,797*	*82,439*	*B (17.5)*	*High*	*Moderate*	*B (16.0)*	*B (16.5)*	*4,797*
Variation S3-C4	*5,477*	*82,611*	*B (17.5)*	*High*	*Moderate*	*B (16.0)*	*B (16.5)*	*5,477*
Variation S3-C5	*10,078*	*78,180*	*B (17.5)*	*High*	*Moderate*	*B (16.0)*	*B (16.5)*	*10,078*
Variation S3-C6	*13,585*	*72,323*	*B (17.5)*	*High*	*Moderate*	*B (16.0)*	*B (16.5)*	*13,585*
Flagstaff A	4,968	80,610	B (17.5)	High	Moderate	B (16.0)	B (16.5)	4,968
Timber Canyon	9,810	79,693	B (17.5)	High	Low	B (16.0)	B (17.5)	0
Flagstaff A – Burnt River Mountain	4,797	86,252	B (17.5)	High	Moderate	B (16.0)	B (16.5)	4,797
Flagstaff B	4,698	80,610	B (17.5)	High	Moderate	B (16.0)	B (16.5)	4,698
Flagstaff B – Burnt River West	10,078	81,994	B (17.5)	High	Moderate	B (16.0)	B (16.5)	10,078
Flagstaff B – Durkee	13,585	76,134	B (17.5)	High	Moderate	B (16.0)	B (16.5)	89,719
BA-026 Durkee Creek								
Applicant's Proposed Action	726	6,047	C (10.5)	High	Moderate	C (9.0)	C (9.5)	6,773
Variation S3-A1	*Not applicable*							
Variation S3-A2	*Not applicable*							
Variation S3-B1	*Not applicable*							
Variation S3-B2	*Not applicable*							
Variation S3-B3	*Not applicable*							
Variation S3-B4	*Not applicable*							
Variation S3-B5	*Not applicable*							
Variation S3-C1	*726*	*6,047*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*6,773*
Variation S3-C2	*1,271*	*5,502*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*6,773*
Variation S3-C3	*380*	*6,393*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*6,773*
Variation S3-C4	*141*	*6,632*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*6,773*
Variation S3-C5	*0*	*6,773*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Variation S3-C6	*0*	*5,202*	*C (10.5)*	*No change*	*Low*	*C (10.5)*	*C (10.5)*	*0*
Flagstaff A	726	6,047	C (10.5)	High	Low	C (10.5)	C (10.5)	726
Timber Canyon	0	2,450	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Flagstaff A – Burnt River Mountain	380	6,393	C (10.5)	High	Low	C (9.5)	C (10.5)	380
Flagstaff B	726	6,047	C (10.5)	High	Low	C (9.5)	C (10.5)	726
Flagstaff B – Burnt River West	0	6,773	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Flagstaff B – Durkee	0	5,202	C (10.5)	No change	Low	C (10.5)	C (10.5)	0

Table 3-424. Scenic Quality Impacts by Visual Analysis Unit for Segment 3—Baker Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-027 Caribou Bar								
Applicant's Proposed Action	3,332	5,465	C (11.0)	Moderate	Low	C (10.0)	C (11.0)	3,332
Variation S3-A1	*Not applicable*							
Variation S3-A2	*Not applicable*							
Variation S3-B1	*Not applicable*							
Variation S3-B2	*Not applicable*							
Variation S3-B3	*Not applicable*							
Variation S3-B4	*Not applicable*							
Variation S3-B5	*Not applicable*							
Variation S3-C1	*3,332*	*5,465*	*C (11.0)*	*High*	*Low*	*C (9.5)*	*C (11.0)*	*3,332*
Variation S3-C2	*3,332*	*5,465*	*C (11.0)*	*High*	*Low*	*C (9.5)*	*C (11.0)*	*3,332*
Variation S3-C3	*3,323*	*5,474*	*C (11.0)*	*High*	*Low*	*C (9.5)*	*C (11.0)*	*3,323*
Variation S3-C4	*3,323*	*5,474*	*C (11.0)*	*Moderate*	*Low*	*C (10.0)*	*C (11.0)*	*3,323*
Variation S3-C5	*507*	*8,289*	*C (11.0)*	*Low*	*Low*	*C (11.0)*	*C (11.0)*	*0*
Variation S3-C6	*404*	*7,785*	*C (11.0)*	*Low*	*Low*	*C (11.0)*	*C (11.0)*	*0*
Flagstaff A	3,332	5,465	C (11.0)	High	Low	C (9.5)	C (11.0)	3,332
Timber Canyon	3,332	5,465	C (11.0)	Moderate	Low	C (10.0)	C (11.0)	3,332
Flagstaff A – Burnt River Mountain	3,323	5,474	C (11.0)	High	Low	C (9.5)	C (11.0)	3,323
Flagstaff B	3,332	5,465	C (11.0)	High	Low	C (9.5)	C (11.0)	3,332
Flagstaff B – Burnt River West	507	8,289	C (11.0)	Moderate	Low	C (10.0)	C (11.0)	507
Flagstaff B – Durkee	404	7,785	C (11.0)	Moderate	Low	C (10.0)	C (11.0)	404

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Stationary Sensitive Viewing Platforms				
4-10 City of North Powder				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Timber Canyon	Low	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable
4-17 Grande Tour Oregon Tour Route–Thief Valley Reservoir				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable
5-25a Oregon Trail Area of Critical Environmental Concern – National Historic Oregon Trail Interpretive Center (Flagstaff Hill Trail, South)				
Applicant's Proposed Action	Moderate	III	Yes	0.0
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S3-B1	*Low*	*III*	*Yes*	*0.0*
Variation S3-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S3–B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3–B3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
5-25b Oregon Trail Area of Critical Environmental Concern – National Historic Oregon Trail Interpretive Center (Flagstaff Hill Trail, North)				
Applicant's Proposed Action	Low	III	Yes	0.0
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S3-B1	*Low*	*III*	*Yes*	*0.0*
Variation S3-B1	*Low*	*IV*	*Yes*	*0.0*
5-25c Oregon Trail Area of Critical Environmental Concern – National Historic Oregon Trail Interpretive Center (Panorama Point)				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B3	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	High	Not applicable	Not applicable	Not applicable
5-25d Oregon Trail Area of Critical Environmental Concern – National Historic Oregon Trail Interpretive Center (Main Building)				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Variation S3-B1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B3	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Moderate	Not applicable	Not applicable	Not applicable

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
5-25e Oregon Trail Area of Critical Environmental Concern – National Historic Oregon Trail Interpretive Center (Wagon Encampment)				
Applicant's Proposed Action	High	III	Yes	0.0
Applicant's Proposed Action	High	IV	Yes	0.0
Variation S3-B1	*High*	*III*	*Yes*	*0.0*
Variation S3-B1	*High*	*IV*	*Yes*	*0.0*
Variation S3–B2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3–B3	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Moderate	Not applicable	Not applicable	Not applicable
5-26 Oregon Trail Area of Critical Environmental Concern–Hill Creek Road				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S3-C1	*Low*	*IV*	*Yes*	*0.0*
Variation S3-C2	*Low*	*IV*	*Yes*	*0.0*
Variation S3-C3	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C4	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C5	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C6	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	IV	Yes	0.0
Flagstaff A – Burnt River Mountain	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	IV	Yes	0.0
Flagstaff B – Burnt River West	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Moderate	Not applicable	Not applicable	Not applicable
5-29 Oregon Trail Crossing–Hixon Road				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S3-C1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C3	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C4	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C5	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C6	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	High	Not applicable	Not applicable	Not applicable

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Flagstaff B	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	High	Not applicable	Not applicable	Not applicable
5-30 Oregon Trail Crossing–Plano Road				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S3-C1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C4	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	High	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
5-31 Oregon Trail Crossing–Weatherby				
Applicant's Proposed Action	High	IV	Yes	0.0
Variation S3-C1	*High*	*IV*	*Yes*	*0.0*
Variation S3-C2	*High*	*IV*	*Yes*	*0.0*
Variation S3-C3	*High*	*IV*	*Yes*	*0.0*
Variation S3-C4	*High*	*IV*	*Yes*	*0.0*
Flagstaff A	High	IV	Yes	0.0
Timber Canyon	High	IV	Yes	0.0
Flagstaff A – Burnt River Mountain	High	IV	Yes	0.0
Flagstaff B	High	IV	Yes	0.0
5-32 Oregon Trail Kiwanis Club Memorial				
Applicant's Proposed Action	Low	III	Yes	0.0
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*Low*	*III*	*Yes*	*0.0*
Variation S3-B2	*Low*	*III*	*Yes*	*0.0*
Variation S3-B3	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Moderate	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Moderate	Not applicable	Not applicable	Not applicable

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
5-33 Oregon Trail Ruts Interpretive Site				
Applicant's Proposed Action	Moderate	III	Yes	0.0
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S3-B1	*Moderate*	*III*	*Yes*	*0.0*
Variation S3-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S3-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable
5-34 Powder River Area of Critical Environmental Concern				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff B – Burnt River West	Low	IV	Yes	0.0
5-36 Powder River Wild and Scenic River Corridor–Thief Valley Reservoir Road				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable
5-60 National Historic Oregon Trail Interpretive Center Entrance State Highway 86				
Applicant's Proposed Action	High	III	No	0.7
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S3-B1	*High`*	*III*	*No*	*0.7*
Variation S3-B1	*Moderate*	*IV*	*Yes*	*0.0*

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
5-81 Burnt River				
Flagstaff B – Burnt River West	High	II	No	0.8
Flagstaff B – Durkee	High	II	No	0.2
Variation S3-C5	*High*	*II*	*No*	*0.8*
Variation S3-C6	*High*	*II*	*No*	*0.2*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
5-82 Durkee Community				
Applicant's Proposed Action	Moderate	III	Yes	0.0
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S3-C1	*Moderate*	*III*	*Yes*	*0.0*
Variation S3-C1	*Moderate*	*IV*	*Yes*	*0.0*
Variation S3-C2	*Moderate*	*III*	*Yes*	*0.0*
Variation S3-C2	*Moderate*	*IV*	*Yes*	*0.0*
Variation S3-C3	*Low*	*III*	*Yes*	*0.0*
Variation S3-C3	*Low*	*IV*	*Yes*	*0.0*
Variation S3-C4	*Low*	*II*	*Yes*	*0.0*
Variation S3-C4	*Low*	*IV*	*Yes*	*0.0*
Variation S3-C5	*Low*	*II*	*Yes*	*0.0*
Variation S3-C5	*Low*	*IV*	*Yes*	*0.0*
Variation S3-C6	*Low*	*II*	*Yes*	*0.0*
Variation S3-C6	*Low*	*IV*	*Yes*	*0.0*
Flagstaff A	Low	II	Yes	0.0
Flagstaff A	Low	IV	Yes	0.0
Flagstaff A – Burnt River Mountain	Low	III	Yes	0.0
Flagstaff A – Burnt River Mountain	Low	IV	Yes	0.0
Flagstaff B	Low	III	Yes	0.0
Flagstaff B	Low	IV	Yes	0.0
Flagstaff B – Burnt River West	Low	II	Yes	0.0
Flagstaff B – Burnt River West	Low	IV	Yes	0.0
Flagstaff B – Durkee	Low	IV	Yes	0.0
Flagstaff B – Durkee	Low	II	Yes	0.0
5-84 BLM Virtue Flat Off-Highway Vehicle Recreation Areas				
Applicant's Proposed Action	Low	III	Yes	0.0
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S3-B1	*Low*	*III*	*Yes*	*0.0*
Variation S3-B1	*Low*	*IV*	*Yes*	*0.0*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Linear Sensitive Viewing Platforms				
Alder Creek				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Flagstaff A	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	High	Not applicable	Not applicable	Not applicable
Daly Creek				
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Eagle Creek				
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Elkhorn Drive				
Variation S3–B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3–B3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Grand Tour Route				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S3-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable
Grand Tour Scenic Bikeway				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S3–A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3–B2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3–B3	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Flagstaff A	High	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	High	Not applicable	Not applicable	Not applicable
Flagstaff B	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	High	Not applicable	Not applicable	Not applicable
Hells Canyon				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S3-A1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-A2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B3	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	High	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	High	Not applicable	Not applicable	Not applicable
Flagstaff B	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	High	Not applicable	Not applicable	Not applicable
Interstate 84				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S3-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B3	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C3	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C4	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C5	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C6	*High*	*Not applicable*	*Not applicable*	*Not applicable*

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Timber Canyon	Low	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	High	Not applicable	Not applicable	Not applicable
Journey Though Time Scenic Byway				
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Variation S3–B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3–B3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Manning Creek Road				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Variation S3-C2	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C4	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C5	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C6	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Moderate	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Powder River Wild and Scenic River/Thief Valley Road				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S3-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable
Snake River-Mormon Basin Back Country Byway				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S3–A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Variation S3-B1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B3	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C3	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C4	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C5	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C6	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	High	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	High	Not applicable	Not applicable	Not applicable
Flagstaff B	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	High	Not applicable	Not applicable	Not applicable
Sparta Road				
Timber Canyon	High	Not applicable	Not applicable	Not applicable
State Highway 203				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S3-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B3	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	High	Not applicable	Not applicable	Not applicable
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	High	Not applicable	Not applicable	Not applicable
Flagstaff B	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	High	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	High	Not applicable	Not applicable	Not applicable
U.S. Forest Road 67-Big Creek				
Timber Canyon	High	Not applicable	Not applicable	Not applicable

Table 3-425. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 3—Baker Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
U.S. Forest Road 70				
Timber Canyon	High	Not applicable	Not applicable	Not applicable
U.S. Forest Road 250				
Timber Canyon	High	Not applicable	Not applicable	Not applicable
Special Management Areas				
Powder River Area of Critical Environmental Concern				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S3-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B4	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-B5	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C4	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C5	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S3-C6	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Flagstaff A	Low	Not applicable	Not applicable	Not applicable
Timber Canyon	Low	Not applicable	Not applicable	Not applicable
Flagstaff A – Burnt River Mountain	Low	Not applicable	Not applicable	Not applicable
Flagstaff B	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Burnt River West	Low	Not applicable	Not applicable	Not applicable
Flagstaff B – Durkee	Low	Not applicable	Not applicable	Not applicable

Table 3-426. Conformance with U.S. Forest Service Visual Quality Objectives for Visual Analysis Units in Segment 3—Baker Valley					
Alternative Route	**Visual Quality Objective**	**Conformance**	**Visual Quality Objectives met by the B2H Project**	**Acres of Disturbance**	**Percentage of Total Visual Quality Objective within Study Corridor**
BA-013 Wallowa Mountains					
Timber Canyon	Preservation	Not applicable	Not applicable	0	0.0
	Retention	No	Maximum Modification	12	0.2
	Partial Retention	No	Maximum Modification	105	1.1
	Modification	No	Maximum Modification	427	1.0
	Maximum Modification	Yes	Maximum Modification	124	0.4

Conformance with USFS VQOs for VAUs is not applicable to the other alternatives and variations of Segment 3.

Applicant's Proposed Action Alternative

Effects on Landscape Character and Scenic Quality

Extending generally northwest to southeast, this alternative primarily crosses gently to steeply rolling sage steppe landscapes adjacent to flat or rolling agricultural valleys. Of the 10 VAUS visible within 5 miles of this alternative, 4 would have B scenic quality (Table 3-424). One VAU with B scenic quality (BA-025 Juniper and Sugarloaf Mountains) would experience high impacts on visible areas within the foreground through construction of the B2H Project in steep forested terrain, and one VAU with B scenic quality (BA-014 Blue and Wallowa Foothills) would experience moderate impacts on visible areas within the foreground. The latter would experience a change from B to C scenic quality within the visible foreground due to the introduction of cultural modifications incongruent with the existing setting.

Variation S3-A1

This route variation follows the same alignment through Links 3-4 and 3-22 as the Applicant's Proposed Action Alternative, through rolling hills that are associated with a B scenic quality. The B2H Project contrast associated with this variation would be predominately moderate, as the B2H Project would cross lands that are mostly undeveloped. As described for the Applicant's Proposed Action Alternative, this variation would result in a change from B to C scenic quality within the foreground of VAU BA-014 Blue and Wallowa Foothills.

Variation S3-A2

This route variation parallels Variation S3-A1 at a distance of less than 0.3 mile through Links 3-10, 3-14 and 3-20 and is colocated with an existing 230-kV transmission line. The project contrast associated with this variation would be predominately moderate impacts due to paralleling the existing transmission line that has modified the existing setting. Similar to Variation S3-A1, Variation S3-A2

would result in a change from B to C scenic quality within the foreground of VAU BA-014 Blue and Wallowa Foothills. However, this variation would result in less impact than Variation S3-A1 because it is colocated with an existing transmission line.

Variation S3-B1

This route follows the Applicant's Proposed Action Alternative alignment from Link 3-28 to 3-48, through mostly undeveloped, moderate to steeply rolling sage steppe hills with B and C scenic quality. The project contrast associated with this variation would generally vary from moderate to strong. Impacts on scenic quality associated with this variation would be high within areas of B scenic quality, and would lower the existing rating to C scenic quality within the visible foreground of VAU BA-014 Blue and Wallowa Foothills.

Variation S3-B2

This route variation is located west of Variation S3-B1, and would have a lesser impact on scenic quality because it is primarily colocated with an existing 230-kV transmission line along the east edge of Baker Valley throughout Link 3-37. The project contrast associated with this variation would be predominately moderate. Impacts on scenic quality associated with this variation would be high within areas of B scenic quality, and would lower the existing rating to C scenic quality within the visible foreground areas of VAU BA-014 Blue and Wallowa Foothills.

Variation S3-B3

Impacts associated with this variation would be similar to those discussed for Variation S3-B2, but would be colocated to a higher degree with an existing 230-kV transmission line through Link 3-37 and 3-44. Impacts on scenic quality would be slightly less than that of Variation S3-B2 since the adjacent existing transmission line has modified the existing landscape setting.

Variation S3-B4

Impacts associated with this variation would be similar to those discussed for Variation S3-B2, but would be colocated to a higher degree with an existing 230-kV transmission line through Link 3-31, 3-36, 3-37, 3-39, 3-43, and 3-44. Impacts on scenic quality would be slightly less than that of Variation S3-B2, Variation S3-B3, or Variation S3-B5 since the adjacent existing transmission line has modified the existing landscape setting.

Variation S3-B5

Impacts associated with this variation would be similar to those discussed for Variation S3-B2, but would be colocated to a higher degree with an existing 230-kV transmission line though Links 3-31, 3-34, and 3-39. Impacts on scenic quality would be slightly less than that of Variation S3-B2 or Variation S3-B3 since the adjacent existing transmission line has modified the existing landscape setting.

Variation S3-C1

This route follows the same alignment as the Applicant's Proposed Action Alternative from Link 3-58 to 3-92 through moderately to steeply rolling hills, both wide and narrow valleys, and moderately tall rolling mountains. Variation S3-C1 crosses both B and C scenic quality lands, and would be partially colocated

with existing 138-kV and existing 69-kV transmission lines. Of the 4 VAUS visible within 5 miles of this alternative, 2 would have B scenic quality (Table 3-424). The project contrast associated with this variation would be predominately high. Impacts on scenic quality associated with Variation S3-C1 would decrease the existing B scenic quality rating to C scenic quality within the visible foreground of VAU BA-014 Blue and Wallowa Foothills.

Variation S3-C2

Impacts associated with this variation would be similar to those discussed for Variation S3-C1, but would be colocated to a higher degree with existing 138-kV and 69-kV transmission lines through Link 3-42. Impacts on scenic quality would be slightly less than that of Variation S3-C1 since the adjacent existing transmission lines have modified the existing landscape setting..

Variation S3-C3

This route alignment is located west of the Applicant's Proposed Action Alternative and Variation S3-C1 - extending around the west side of the Durkee Valley. Variation S3-C3 crosses through moderately to steeply rolling hills, narrow valleys, and moderately tall rolling mountains associated with both B and C scenic quality. Of the 4 VAUS visible within 5 miles of this alternative, 2 would have B scenic quality (Table 3-424). The project contrast associated with this variation would be predominately high. Impacts on scenic quality associated with Variation S3-C3 would decrease the existing B scenic quality rating to C scenic quality within the visible foreground of VAU BA-014 Blue and Wallowa Foothills.

Variation S3-C4

Impacts on scenic quality associated with this variation would be similar to those described for Variation S3-C3, except that Variation S3-C4 through Link 3-70 would have more impacts on areas with B scenic quality as the B2H Project traverses steeper slopes increasing contrast introduced by construction of access roads.

Variation S3-C5

This route alignment would generally be located west of Variation S3-C4 - extending farther around the west side of the Durkee Valley through Links 3-71 and 3-73. Variation S3-C5 crosses through mostly undeveloped moderately to steeply rolling hills, narrow valleys, and moderately tall rolling mountains associated with both B and C scenic quality. Of the 4 VAUS visible within 5 miles of this alternative, 2 would have B scenic quality (Table 3-424). The project contrast associated with this variation would be predominately strong. Impacts on scenic quality associated with Variation S3-C5 would decrease the existing B scenic quality rating to C scenic quality within the visible foreground of VAU BA-014 Blue and Wallowa Foothills. Because Variation S3-C5 crosses through a higher amount of and steeper undeveloped land, the variation's impacts on scenery would be higher than that of Variation S3-C3 or S3-C4.

Variation S3-C6

This route alignment would generally be located further west and south of Variation S3-C5 - extending due south to Pedro Mountain before turning eastward and is the longest variation at 24.7 miles long. Variation S3-C6 crosses through mostly undeveloped moderately to steeply rolling hills, narrow valleys,

and moderately tall rolling mountains primarily associated with B scenic quality. Of the 4 VAUS visible within 5 miles of this alternative, 2 would have B scenic quality (Table 3-424). The project contrast associated with this variation would be predominately high, and in a greater amount than the Applicant's Proposed Action Alternative and all other associated variations. Impacts on scenic quality associated with Variation S3-C6 would decrease the existing B scenic quality rating to C scenic quality within the visible foreground of VAU BA-014 Blue and Wallowa Foothills. Because Variation S3-C6 crosses through a higher amount of undeveloped land with steeper forested slopes, the variation's impacts on scenery would be higher than that of Variation S3-C3, S3-C4, or S3-C5.

Effects on Views

Approximately 28.9 miles of high impacts and 17.6 miles of moderate impacts on views associated with residences, recreation, and travel routes would be correlated with the Applicant's Proposed Action Alternative.

Effects on Residential Views

The highest impacts on residential viewers would be concentrated in several different locations; the communities of Durkee, Weatherby, and Dixie, along with scattered residences along the I-84 corridor. Each of these areas would include residences within 0.5 mile of the Applicant's Proposed Action Alternative, resulting in continuous and occasionally skylined views of the B2H Project components within a setting of rolling sage steppe hills and mountains. Views from these residences would generally experience a high degree of impact. Impacts would be slightly less in areas where the Applicant's Proposed Action Alternative is colocated with existing 138-kV and 69-kV transmission lines that have modified the existing viewshed.

Variation S3-A1

This route variation follows the same alignment as the Applicant's Proposed Action Alternative through rolling hills north of State Route 203. There are no residences within 0.5 mile of this route.

Variation S3-A2

This route would parallel the alignment of the Applicant's Proposed Action Alternative at a distance of less than 0.3 mile to the east. There are no residences within 0.5 mile of this route, and the highest impacts would be a moderate degree of impact on views from several residences from a distance over the 0.5 mile influence zone. This variation would result in a lesser degree of impact on views that Variation S3-A1 from residences because the variation alignment would closely parallel an existing 230-kV transmission line that has modified the existing viewshed.

Variation S3-B1

This route variation follows the same alignment of the Applicant's Proposed Action Alternative through rolling foothills, valleys, and drainages. There are no residences located less than 0.5 mile away from the route.

Variation S3-B2

This alternative is found west of the Applicant's Proposed Action Alternative through rolling foothills, valleys, and drainages, is within 0.5 mile of nine residences; however, the highest impacts on views would be from the 4 residences found near the northern section of the Variation S3-B2. The northernmost residences would have their views highly affected due unobstructed views of the B2H Project. For two residences located south of the residences mentioned above, located less 0.5 mile from the route, also would have high impacts on their views due to unobstructed views of the B2H Project partially skylined above ridgelines.

Variation S3-B3

This route variation is located west of the Applicant's Proposed Action Alternative through rolling foothills, valleys, and drainages and shares similar alignment to Variation S3-B2. The highest impacts associated with views from residences would occur on the same 4 residences found near the northern section of the variation S3-B2. This route variation is located closer to the southernmost residences and would moderately impact the views associated with these residences due to the proximity of the turning structures and the B2H Project being partially skylined.

Variation S3-B4

This route variation is located west of the Applicant's Proposed Action Alternative and the highest impacts associated with views from residences occur on the same four northern most residences as S3-B2 located less than 0.5 mile away from the B2H Project with similar moderate impacts on views associated with the southernmost residences as those from Variation S3-B3.

Variation S3-B5

This route variation would have similar high impacts on views associated with the same 4 northernmost residences as described for Variation S3-B2. This route variation also would have similar moderate impacts on views associated with the southernmost residences located less than 0.5 mile away from the route as those described for Variation S3-B2.

Variation S3-C1

This route variation follows the same alignment of the Applicant's Proposed Action Alternative through rolling foothills, valleys, and drainages. Although there are many residences that are located less than 0.5 mile away from the route, there are four major areas where these residences would have partially skylined and backdropped views due to the topography in this area. These areas include the communities of Durkee, Weatherby, and Dixie and areas along I-84.

Variation S3-C2

North of Durkee, this route variation begins to follow the same alignment of the Applicant's Proposed Action Alternative through rolling foothills, valleys, and drainages and turns slightly south just north of Durkee approximately mile away from Sensitive Viewing Platform 5-82 (Durkee Community) and turns east to meet the Applicant's Proposed Alignment Although there are many residences that are located less than 0.5 mile away from the route, there are four major areas where these residences would have partially skylined and backdropped views due to the topography in this area. Adjacent to the community

of Durkee, the B2H Project would be in closer to residences than Variation S3-C1 resulting in more intense impacts on their views.

Variation S3-C3

This route variation would have similar impacts as Variation S3-C1. This route would be less visible from residences as it would not be located within 0.5 mile of the residences described for Variations S3-C1 and S3-C2.

Variation S3-C4

Similar to Variation S3-C3, this route variation is located west of the community of Durkee but extends further to the west away from identified residences. This route follows the same alignment as the Applicant's Proposed Action Alternative on the east side of Weatherby.

Variation S3-C5

This route variation would affect views associated with three residences located less than 0.5 mile away from the B2H Project near the southern end of Segment 3 resulting in high impacts on these views

Variation S3-C6

Since this route variation is located west of most identified residences, impacts on views from three residences found at the southern end of Segment 3 would be high in magnitude as with views of the B2H Project mostly back dropped from an inferior viewing angle.

Effects on Recreational Views

There would be no identifiable impacts on stationary Sensitive Viewing Platforms associated with recreational views. The Applicant's Proposed Action Alternative would affect views from several linear viewing platforms that are either crossed or located less than 0.5 mile away from the B2H Project. This alternative crosses Hells Canyon All American Road and highly affect views due to the B2H Project crossing directly overhead through a mostly flat area surrounded by gentle rolling hills. The Grand Tour Scenic Bikeway, following State Highway 203, also would be affected by the B2H Project and would have a high impact on views due to unobstructed views of the B2H Project through a mostly flat landscape. Views from the Snake River-Mormon Basin Back Country Byway also would be affected by the B2H Project and would have similar impacts as Hells Canyon All American Road. There would be no identifiable impacts on SMAs that are associated with recreation. Note, impacts on the Oregon NHT and NHOTIC are described in Section 3.2.15.

Variation S3-A1

This route variation would have no identifiable impacts on views associated with recreation from stationary Sensitive Viewing Platforms, linear viewing platforms, or SMAs.

Variation S3-A2

This route variation would have no identifiable impacts on views associated with recreation from stationary Sensitive Viewing Platforms, linear viewing platforms, or SMAs.

Variations S3-B1 through S3-B5

These route variations would have the same impact levels on the three linear viewing platforms described for the Applicant's Proposed Action Alternative; however, S3-B1, crosses these routes through less developed land.

Variation S3-C1

This route would have no identifiable impacts on views associated with recreation for stationary Sensitive Viewing Platforms or SMAs. High impacts on views from the Snake River-Mormon Basin Back Country Byway would occur as this route crosses directly over the byway with unobstructed views of the B2H Project skylined in steep terrain.

Variations S3-C2 and S3-C3

Impacts on views from recreation viewers would be similar to Variation S3-C1.

Variation S3-C4

This route variation would moderately impact views from stationary Sensitive Viewing Platform 5-81 Burnt River as the B2H Project would be located less than 0.5 mile away. These views would be partially screened by vegetation and topography but where visible, the B2H Project would be partially skylined from an inferior viewing angle. This route variation would have similar impacts on views from the Snake River-Mormon Basin Back Country Byway as Variation S3-C1. This route would have no identifiable impacts on recreation views associated with SMAs.

Variation S3-C5

This route variation is located 0.2 mile from stationary Sensitive Viewing Platform 5-81 Burnt River generating high impacts on views due to the proximity to the site and the B2H Project being mostly skylined from an inferior viewing angle. This route would have similar impacts on views from the Snake River-Mormon Basin Back Country Byway linear viewing platform as Variation S3-C1.

Variation S3-C6

This route variation is located 0.7 mile from stationary Sensitive Viewing Platform 5-81 Burnt River generating high impacts on views due to the proximity to the site and the B2H Project being mostly skylined from an inferior viewing angle. This route variation would have similar impacts on the views from the Snake River-Mormon Basin Back Country Byway linear viewing platform as the Variation S3-C5. This route would have no identifiable impacts on recreation views associated with other stationary Sensitive Viewing Platforms or SMAs.

Effects on Views from Travel Routes

The highest impacts on travel routes would be associated with views from I-84 and Highway 203. Views from I-84 would be highly affected by the B2H Project, due to the overhead views of the crossing over I-84 as well as being located less than 0.25 mile away, since transmission line structures would be partially backdropped adjacent to existing cultural modifications. Views from Highway 203, as described for the Grand Tour Scenic Bikeway, would be highly affected by the B2H Project due to unobstructed views of the B2H Project through a mostly flat landscape.

Variations S3-A1 and S3-A2

The B2H Project would not be located less than 0.5 mile away from any identified travel routes.

Variation S3-B1

This route variation approaches I-84 at the southernmost end of the route variation where views would be moderately affected since the B2H Project would be seen in context with existing transmission lines which have modified the existing setting. This route variation would be the only route that would not parallel the travel route I-84. Views from Highway 203, as described for the Grand Tour Scenic Bikeway, would be highly affected by the B2H Project due to unobstructed views of the B2H Project through a mostly flat landscape.

Variation S3-B2

Views from I-84 would be moderately affected as the B2H Project would parallel the interstate adjacent to existing cultural modifications. High impacts on views from Highway 203 would occur due to head-on views of the B2H Project approximately 0.5 mile east of the existing 230-kV transmission line.

Variations S3-B3 and S3-B4

This route variation would have similar impacts on views from travel routes as Variation S3-B2 and shares the same alignment through Link 3-44.

Variation S3-B5

This route variation would have similar impacts on S3-B2 as it shares the same alignment through Link 3-47.

Variation S3-C1

Views from I-84 would be highly affected by the B2H Project, due to the overhead views of the crossing over I-84 as well as being located less than 0.25 mile away near the northern portion of the variation, since transmission line structures would be partially backdropped adjacent to existing cultural modifications.

Variation S3-C2

The route variation would highly impact views from I-84 due to a head-on view of the B2H Project directly adjacent to the highway where the proposed transmission line structures would be visually stacked in the viewshed increasing their dominance.

Variation S3-C3

This route variation would highly impact views from I-84 due to crossing I-84 three times with head-on views of the B2H Project where the proposed transmission line structures would be visually stacked in the viewshed increasing their dominance.

Variation S3-C4

Similar to Variation S3-C3, this route variation would introduce high impacts on views from I-84 due to crossing I-84 three times with head-on views of the B2H Project.

Variation S3-C5

Similar to Variation S3-C3, this route would introduce high impacts on views from I-84 due to crossing I-84 once near the northern end of the variation with head-on views of the B2H Project.

Variation S3-C6

This route variation would have similar impacts on views from I-84 as Variation S3-C5.

Conformance with Management Objectives

If the Applicant's Proposed Action Alternative is selected, the B2H Project would not be in conformance with BLM VRM Class Objectives adjacent to NHT-related Sensitive Viewing Platform 5-60 (National Historic Oregon Trail Interpretive Center Entrance State Highway 86) for 0.7 mile in VRM Class III. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Note: Variations not mentioned would be in conformance with BLM VRM Objectives and route does not cross USFS-administered land.

Variation S3-B1

Areas of non-conformance are the same as described for the Applicant's Proposed Action Alternative as they share the same alignment east of Sensitive Viewing Platform 5-60.

Variation S3-C5

This route variation would not be in conformance with VRM Class II for 0.8 mile as viewed from Sensitive Viewing Platform 5-81 (Burnt River Canyon). Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Variation S3-C6

This route variation would not be in conformance with VRM Class II for 0.2 mile as viewed from Sensitive Viewing Platform 5-81 (Burnt River Canyon). Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Flagstaff A Alternative

Effects on Landscape Character and Scenic Quality

Impacts associated with this alternative would be similar to that of the Applicant's Proposed Action Alternative, except the Flagstaff A Alternative follows the same alignment as Variation S3-B5 to the west of the NHOTIC facility, while the Applicant's Proposed Action Alternative follows the alignment of Variation S3-B1 to the east of the NHOTIC facility. Therefore, the Flagstaff A Alternative would have a lesser impact on scenic quality than the Applicant's Proposed Action Alternative because it would be primarily colocated with an existing 230-kV transmission line along the east edge of Baker Valley that has modified the adjacent areas through the presence of H-frame transmission line structures.

Effects on Views

The Flagstaff A Alternative would have 2.1 miles more of high impacts and 0.9 mile less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

Similar to the Applicant's Proposed Action Alternative, the highest impacts on residences would occur adjacent to communities as well as areas adjacent to I-84. Impacts on views from residences also would be similar to the Applicant's Proposed Action Alternative for most of the areas except Flagstaff A Alternative would have higher impacts in the proximity of residences east of Baker City.

Effects Recreational Views

Similar to the Applicant's Proposed Action Alternative, there would be no identifiable impacts on stationary Sensitive Viewing Platforms associated with recreational views. The Flagstaff A Alternative would affect views from several linear viewing platforms that are either crossed or located less than 0.5 mile away from the B2H Project. This alternative crosses Hells Canyon All American Road (State Highway 86) and highly impact views due to the crossing directly overhead through a mostly flat area surrounded by gentle rolling hills. Views from the Grande Tour Scenic Bikeway, following State Highway 203, also would be highly affected by the B2H Project due to unobstructed views of proposed transmission line structures in a mostly flat landscape. Views from the Snake River-Mormon Basin Back Country Byway would be similar to those impacts described for the Hells Canyon All American Road. There would be no identifiable impacts on views from SMAs that are associated with recreation. Note, impacts on the Oregon NHT and NHOTIC are described in Section 3.2.15.

Effects on Views Associated with Travel Routes

Impacts on views from travel routes would be similar to those described for the Applicant's Proposed Action Alternative.

Conformance with Management Objectives

The Flagstaff A Alternative does not cross USFS land. This alternative would be in conformance with objectives associated with BLM VRM Class lands crossed.

Timber Canyon Alternative

Effects on Landscape Character and Scenic Quality

The Timber Canyon Alternative would extend eastward, passing over rolling sage steppe hills to the north of Thief Valley Reservoir, and extending east and south into the forested, steeply rolling mountains of the Wallowa-Whitman National Forest. The alternative alignment would continue southward, passing through steeply rolling sage steppe hills to the east of Eagle Valley, before turning southwest and passing to the north of Big Lookout Mountain. Because this alternative traverses large expanses of undeveloped, steeply rolling hills of sage steppe and juniper, most of the 10 VAUs visible within 5 miles of this alternative are rated as B scenic quality (Table 3-424). Of these VAUs, one VAU has an A scenic quality rating, and 6 have B scenic quality ratings. The VAU with A scenic quality

includes densely forested steeply rolling mountains, and would be subjected to high impacts on scenery within the visible foreground due to geometrical forms generated through right-of-way vegetation clearing and the construction of access roads in steep terrain. The VAUs with B scenic quality would each be subjected to high levels of project contrast, resulting in high impacts in the visible foreground and moderate impacts in the visible middleground. From areas in which the B2H Project would be visible, each of the A and B scenic quality VAUs would experience decreases to the scenic quality rating scores. The decreases in scores would result in changes to the overall rating of B scenic quality for VAUs BA-022 Eagle Valley and BA-014 Blue and Wallowa Foothills.

Effects on Views

The Timber Canyon Alternative would have 27.4 miles more of high impacts and 7.4 miles less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

Impacts on views associated with residences occur in two major residential areas. At the south end of the alternative, west of Richland, views from residences would be highly affected due unobstructed views across the flat agricultural land crossed by the B2H Project. Approximately 1 mile north of New Bridge, impacts associated with views from residences in the valley would experience moderate impacts due to the inferior point of view with the transmission line structures being partially backdropped.

Effects on Recreational Views

There would be no identifiable impacts on views from stationary Sensitive Viewing Platforms or SMAs associated with recreation. There would be high impacts on views from linear viewing platforms associated with recreation, including head-on views from crossing the Grande Tour Scenic Bikeway, Grande Tour Route, the Snake River-Mormon Basin Back Country Byway, Powder River Wild and Scenic/Thief Valley Road, and Hells Canyon All American Road.

Effects on Views from Travel Routes

Views from Daly Creek, Eagle Creek, Manning Creek Road, Sparta Road, State Highway 203, USFS Road 67-Big Creek, USFS Road 70, and USFS Road 250 would all be highly affected by the B2H Project. Direct overhead crossing would occur to all three USFS roads through densely forested areas introducing a head-on views where the proposed transmission lines structures would be visually stacked against each other. The B2H Project would parallel Eagle Creek Road for approximately 3 miles at a distance of approximately 0.5 mile with views of partially skylined transmission line structures from an inferior viewing angle. Sparta Road would be paralleled by the B2H Project at a similar distances but also would be crossed at the southernmost end of the travel route. Both Manning Creek Road and Daly Creek Road also would both be crossed and would have similar views of the B2H Project, including partially skylined views of transmission line structures.

Conformance with Management Objectives

If the Timber Canyon Alternative is selected, the B2H Project would conform to all VRM Class objectives for BLM-administered lands. There would be areas of non-conformance on USFS-administered lands in the BA-013 Wallowa Mountains VAU and BA-014 Blue and Wallowa Foothills VAU. The areas of non-conformance with VQOs in the BA-013 Wallowa Mountains VAU established in Table 3-426 would include 21 acres of non-conformance with the Retention VQO and 18 acres of non-conformance with the Partial Retention VQO. Areas of non-conformance with the USFS Wallowa-Whitman National Forest LRMP are discussed in Section 3.4.

Flagstaff A – Burnt River Mountain Alternative

Effects on Landscape Character and Scenic Quality

Impacts associated with this alternative would be similar to that of the Flagstaff A Alternative, except the Flagstaff A – Burnt River Mountain Alternative follows the same alignment as Variation S3-C3, while the Flagstaff A Alternative follows the alignment of Variation S3-C1. Following the same alignment as Variation S3-C3, the Flagstaff A – Burnt River Mountain Alternative is located west of the Applicant's Proposed Action Alternative - extending around the west side of the Durkee Valley. In this area, the Flagstaff A – Burnt River Mountain Alternative is colocated with existing 138-kV and 69-kV transmission lines for fewer miles than the Applicant's Proposed Action Alternative – resulting in a higher degree of impacts on scenic quality as this alternative traverses more intact settings.

Effects on Views

The Flagstaff A – Burnt River Mountain Alternative would have 0.9 mile more of high impacts and 1.0 mile more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

Similar to the Applicant's Proposed Action Alternative, the highest impacts on residences would occur near Weatherby and Dixie as well as northeast of Baker City and areas adjacent to I-84. Impacts on these views also would be similar to the Applicant's Proposed Action Alternative except this alternative would not affect the residences near Durkee adjacent to I-84 but crosses three residences within 0.5 mile away west of Durkee.

Effects on Recreational Views

Similar to the Applicant's Proposed Action Alternative, there would be no identifiable impacts on stationary Sensitive Viewing Platforms associated with recreational views located less than 0.5 mile from the B2H Project. This alternative crosses the Hells Canyon All American Road and introduce high impacts on views due to the route crossing overhead through a mostly flat area surrounded by gentle rolling hills dominating the viewshed. Views from the Grande Tour Scenic Bikeway, following State Highway 203, also would be highly affected by the B2H Project due to unobstructed views of the B2H Project through a mostly flat landscape. Views from the Snake River-Mormon Basin Back Country Byway also would be affected by the B2H Project and would have similar impacts as described for the Hells Canyon All American Road. There would be no identifiable impacts on views from SMAs that are

associated with recreation. Note, impacts on the Oregon NHT and NHOTIC are described in Section 3.2.15.

Effects on Views from Travel Routes

Similar to the Applicant's Proposed Action Alternative, the highest impacts on travel routes would be associated with views from I-84 and State Highway 203. This route also would highly affect views from Alder Creek Road with head-on skylined views of the B2H Project. Views from I-84 would be highly affected by the B2H Project, due to the overhead views of the crossing over I-84 as well as being located less than 0.25 mile away, since transmission line structures would be partially backdropped adjacent to existing cultural modifications. Views from Highway 203, as described for the Grand Tour Scenic Bikeway, would be highly affected by the B2H Project due to unobstructed views of the B2H Project through a mostly flat landscape.

Conformance with Management Objectives

The Flagstaff A–Burnt River Mountain Alternative does not cross USFS land. This alternative would be in conformance with all objectives associated with BLM VRM Classes lands crossed.

Flagstaff B Alternative

Effects on Landscape Character and Scenic Quality

Impacts associated with this alternative would be similar to that of the Applicant's Proposed Action Alternative, except the Flagstaff B Alternative follows the same alignment as Variation S3-B3 to the west of the NHOTIC facility, while the Applicant's Proposed Action Alternative follows the alignment of Variation S3-B1 to the east of the NHOTIC facility. Since the Flagstaff B Alternative would be predominately colocated with an existing 230-kV transmission line along the east edge of Baker Valley, this alternative would have a less impacts on scenic quality than the Applicant's Proposed Action Alternative.

Effects on Views

The Flagstaff B Alternative would have 2.2 miles more of high impacts and 1.7 miles less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

Similar to the Applicant's Proposed Action Alternative, the highest impacts on residences would occur near Weatherby and Dixie as well as northeast of Baker City and areas adjacent to I-84. However, the Flagstaff B Alternative would be closer to Baker City, on the east side of the city, than the Applicant's Proposed Action Alternative. This route would increase the magnitude of impacts to views on residences of Baker City as well as the residences northeast of Baker City. The Flagstaff B Alternative would be within 0.5 mile from 3 residences in the area, and due to this. impacts on views from residences would be more than those of the Applicant's Proposed Action Alternative.

Effects on Recreational Views

There would be no identifiable impacts on views from stationary Sensitive Viewing Platforms associated with recreational views. This alternative would have impacts on views from several linear viewing platforms that are either crossed or located less than 0.5 mile away from the B2H Project. This alternative crosses the Hells Canyon All American Road and highly affect views due to crossing directly overhead through a mostly flat area surrounded by gentle rolling hills dominating the viewshed. Views from the Grand Tour Scenic Bikeway, following State Highway 203, also would be highly affected by the B2H Project due to unobstructed direct overhead views of the B2H Project through a mostly flat landscape. Views from the Snake River-Mormon Basin Back Country Byway also would be highly affected by the B2H Project, similar to the effects described for the Hells Canyon All American Road. There would be no identifiable impacts on views from SMAs that are associated with recreation. Note, impacts on the Oregon NHT and NHOTIC are described in Section 3.2.15.

Effects on Views from Travel Routes

The highest impacts on travel routes would be associated with views associated with I-84 and Highway 203.

Views from I-84 would be highly affected by the B2H Project, due to the overhead views of the crossing over I-84 as well as being located less than 0.25 mile away, since transmission line structures would be partially backdropped adjacent to existing cultural modifications. Views from Highway 203, as described for the Grand Tour Scenic Bikeway, would be highly affected by the B2H Project due to unobstructed views of the B2H Project through a mostly flat landscape.

Conformance with Management Objectives

The Flagstaff B Alternative does not cross USFS land. This alternative would be in conformance with all objectives associated with BLM VRM Classes lands crossed.

Flagstaff B – Burnt River West Alternative

Effects on Landscape Character and Scenic Quality

Impacts associated with this alternative would be similar to that of the Flagstaff B Alternative, except the Flagstaff B – Burnt River West Alternative follows the same alignment as Variation S3-C5, while the Flagstaff B Alternative follows the alignment of Variation S3-C1. Therefore, the Flagstaff B – Burnt River West Alternative is located west of the Applicant's Proposed Action Alternative - extending around the west side of the Durkee Valley. In this area, the Flagstaff B – Burnt River West Alternative traverses mostly undeveloped, steeply rolling hills and, on the southern end, is colocated with existing 138-kV and 69-kV transmission lines for fewer miles than the Flagstaff B Alternative, resulting in a higher degree of impacts on scenic quality.

Effects on Views

The Flagstaff B – Burnt River West Alternative would have 7.1 miles less of high impacts and 0.4 miles less of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

The highest impacts on residences would occur near Old U.S. Highway 30, west of I-84, Dixie, and northeast of Baker City. Impacts on views from residences would be similar to those described for the Applicant's Proposed Action Alternative. This alternative would not impact views from residences in Durkee as this alternative is sited west of the community.

Effects on Recreational Views

This alternative is located approximately 0.25 mile from Sensitive Viewing Platform 5-81 (Burnt River) and would highly impact these views due to the mostly unobstructed and skylined views of the B2H Project. This alternative would affect views from several linear viewing platforms that are either crossed or are located less than 0.5 mile from the B2H Project. This alternative crosses Hells Canyon All American Road and highly impact views due to the route crossing directly overhead through a mostly flat area surrounded by gentle rolling hills dominating the viewshed. Views from the Grand Tour Scenic Bikeway, following State Highway 203, also would be highly affected due to unobstructed direct overhead views of the B2H Project through a mostly flat landscape. Views from the Snake River-Mormon Basin Back Country Byway would also be highly affected by the B2H Project similar to those described for the Hells Canyon All American Road. There would be no identifiable impacts on views SMAs that are associated with recreation. Note, impacts on the Oregon NHT and NHOTIC are described in Section 3.2.15.

Effects on Views from Travel Routes

The highest impacts on travel routes would be associated with views from I-84 and State Highway 203. Views from I-84 would be highly affected by the B2H Project, due to the overhead views of the crossing over I-84 as well as being located less than 0.25 mile away, since transmission line structures would be partially backdropped adjacent to existing cultural modifications. Views from Highway 203, as described for the Grand Tour Scenic Bikeway, would be highly affected by the B2H Project due to unobstructed views of the B2H Project through a mostly flat landscape.

Conformance with Management Objectives

The Flagstaff B – Burnt River West Alternative does not cross USFS land. This alternative would not be in conformance with BLM VRM Class II Objectives for 0.8 mile as viewed from Sensitive Viewing Platform 5-81 Burnt River. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Flagstaff B – Durkee Alternative

Effects on Landscape Character and Scenic Quality

Impacts associated with this alternative would be similar to that of the Flagstaff B – Burnt River West Alternative, except the Flagstaff B – Durkee Alternative follows the same alignment as Variation S3-C6, while the Flagstaff B – Burnt River West Alternative follows the alignment of Variation S3-C5. Therefore, the Flagstaff B – Durkee Alternative is generally located farther west and south of the Flagstaff B – Burnt River West Alternative - extending due south to Pedro Mountain before turning eastward. In this area, the Flagstaff B – Durkee Alternative crosses through a higher amount of

undeveloped land with steeper forested slopes; therefore this alternative's impact on scenery would be higher than the Flagstaff B – Burnt River West Alternative.

Effects on Views

The Flagstaff B - Durkee Alternative would have 1.4 miles less of high impacts and 1.4 miles more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

The highest impacts on residences would occur near Old U.S. Highway 30, west of I-84, Dixie, and northeast of Baker City. Impacts on views from residences would be similar to those described for the Applicant's Proposed Action Alternative. This alternative would not impact views from residences in Durkee as this alternative is sited west of the community.

Effects on Recreational Views

The Flagstaff B – Durkee Alternative would not affect views from any stationary Sensitive Viewing Platforms with views located within 0.5 mile of the B2H Project. This alternative is located 0.7 mile from Sensitive Viewing Platform 5-81 (Burnt River) and would highly impact these views due to the mostly unobstructed and skylined views of the B2H Project. This alternative would affect views from several linear viewing platforms that are either crossed or are less than 0.5 mile away from the B2H Project. This alternative crosses Hells Canyon All American Road and highly impact views due to the route crossing directly overhead through a mostly flat area surrounded by gentle rolling hills dominating the viewshed. Views from the Grand Tour Scenic Bikeway, following State Highway 203, also would be highly affected due to unobstructed direct overhead views of the B2H Project through a mostly flat landscape. Views from the Snake River-Mormon Basin Back Country Byway also would be highly affected by the B2H Project where the route is crossed multiple times with head-on views of partially skylined to fully skylined transmission line structures. There would be no identifiable impacts on views from SMAs that are associated with recreation. Note, impacts on the Oregon NHT and NHOTIC are described in Section 3.2.15.

Effects on Views from Travel Routes

The highest impacts on travel routes would be associated with views from I-84 and State Highway 203. Unlike the Applicant's Proposed Action Alternative, this route only crosses I-84 once near the southernmost end of this alternative. Views from I-84 would be highly affected by the B2H Project, due to the overhead views of the crossing over I-84 as well as being located less than 0.25 mile away, since transmission line structures would be partially backdropped adjacent to existing cultural modifications. Views from Highway 203, as described for the Grand Tour Scenic Bikeway, would be highly affected by the B2H Project due to unobstructed views of the B2H Project through a mostly flat landscape.

Conformance with Management Objectives

The Flagstaff B – Durkee Alternative does not cross USFS land. This alternative would not be in conformance with BLM VRM Class II Objectives for 0.2 mile as viewed from Sensitive Viewing Platform

5-81 Burnt River. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Conclusions

Impacts associated with the alternatives and variations within Segment 3 vary based on the types of effects being considered (e.g. landscape character and scenic quality, types of viewers, and conformance with management objectives). Of the seven alternatives analyzed in Segment 3, the Timber Canyon Alternative would result in the highest level of impacts on landscape character and scenic quality—traversing a greater number of miles through undeveloped landscapes and landscapes with higher scenic quality ratings. The Flagstaff A and Flagstaff A – Burnt River Mountain alternatives cross a greater amount of agricultural lands with existing cultural modification, and would be partially colocated with existing 138-kV transmission lines.

Impacts on residential viewers would be highest along the I-84 corridor, near Baker City, Oregon, and near Richland, Oregon. In general, impacts on viewers would lessen with distance from the I-84 corridor. Thus, the Timber Canyon Alternative would have the least effects on viewers. Also, a greater number of recreational viewers have also been identified along the I-84 corridor, resulting in fewer effects predicted for the Timber Canyon Alternative as compared to other alternatives. Effects on viewers from travel routes generally would be similar among the various alternatives within Segment 3.

Segment 3 includes alternatives that would not conform to BLM and USFS management objectives. The Applicant's Proposed Action Alternative, Flagstaff B – Burnt River West, and Flagstaff B – Durkee alternatives would each include areas of non-conformance with BLM VRM Class Objectives. Likewise, both variations of the Flagstaff B – Durkee Alternative (S3-C5 and S3-C6) would not conform to BLM VRM Class Objectives. Non-conformance with USFS VQOs would occur in a number of areas along the Timber Canyon Alternative. The Flagstaff A, Flagstaff A – Burnt River Mountain, and Flagstaff B alternatives would conform with visual management objectives.

SEGMENT 4—BROGAN

The following narrative discussions describe the impacts associated with each alternative in Segment 4. Additional details regarding these analyses can be found in Table 3-427, Table 3-428, and Table 3-429. Table 3-428 presents the scenic quality impacts by VAU for each alternative route and route variation within Segment 4. This table includes the acreage within the foreground and middleground of each VAU that would have views of each alternative alignment. The existing scenic quality rating of each VAU also is included in this table, along with the residual scenic quality rating and score for both the foreground and middleground acreage. These residual scenic quality scores are based on the amount of change in score anticipated based on the criteria presented in Table 3-428.

Potential impacts on viewers are represented in Table 3-427 and Table 3-429. Table 3-427 presents an overall comparison of impacts on viewers, as measured in miles of high, moderate, and low impacts. The mileages of impacts are associated with the impacts as they relate back to the alignment of each alternative in Segment 4. This table also includes the total mileage of each alignment. Table 3-429

presents specific impacts anticipated from Sensitive Viewing Platforms, along with the status of conformance with BLM VRM objectives for BLM-related Sensitive Viewing Platforms within Segment 4. Each assessment of conformance also is accompanied by the length of the alternative that can be viewed crossing the associated BLM VRM Class(es).

Conformance with USFS VQOs are not presented in this segment as no USFS-administered land would be crossed by routes in Segment 4—Brogan.

At the end of this section is a conclusion of the impacts on Segment 4, which provides an overview of impacts as well as to which alternative routes and/or variations would be preferable. Because there are several facets to consider when analyzing potential impacts on visual resources (e.g. landscape character and scenic quality, viewers, and plan conformance), this overview provides preferences associated with each of those facets.

Table 3-427. Residual Impacts on Viewers for Segment 4—Brogan

Alternative Route	Total Length (miles)	Residual Impacts (miles)		
		High	Moderate	Low
Applicant's Proposed Action	40.1	7.1	9.0	24.0
Variation S4-A1	*5.9*	*3.5*	*2.4*	*0.0*
Variation S4-A2	*6.0*	*4.6*	*1.4*	*0.0*
Variation S4-A3	*6.1*	*4.7*	*1.4*	*0.0*
Tub Mountain South	40.5	18.7	18.2	3.6
Willow Creek	34.6	6.7	14.4	13.5

Table 3-428. Scenic Quality Impacts by Visual Analysis Unit for Segment 4—Brogan

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-014 Blue and Wallowa Foothills								
Applicant's Proposed Action	6,938	33,115	B (12.0)	High	Moderate	C (10.5)	C (11.0)	40,053
Variation S4-A1	*2,664*	*27,928*	*B (12.0)*	*High*	*Moderate*	*C (10.5)*	*C (11.0)*	*30,592*
Variation S4-A2	*2,388*	*27,728*	*B (12.0)*	*Moderate*	*Moderate*	*C (11.0)*	*C (11.0)*	*20,508*
Variation S4-A3	*2,394*	*27,782*	*B (12.0)*	*Moderate*	*Moderate*	*C (11.0)*	*C (11.0)*	*30,176*
Tub Mountain South	5,047	27,066	B (12.0)	Moderate	Moderate	C (11.0)	C (11.0)	32,113
Willow Creek	6,094	28,051	B (12.0)	High	Moderate	C (10.5)	C (11.0)	34,145

Table 3-428. Scenic Quality Impacts by Visual Analysis Unit for Segment 4—Brogan								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
BA-025 Juniper and Sugarloaf Mountains								
Applicant's Proposed Action	425	26,626	B (17.5)	Moderate	Low	B (16.5)	B (17.5)	425
Variation S4-A1	*424*	*26,626*	*B (17.5)*	*Moderate*	*Low*	*B (16.5)*	*B (17.5)*	*424*
Variation S4-A2	*297*	*26,616*	*B (17.5)*	*Moderate*	*Low*	*B (16.5)*	*B (17.5)*	*297*
Variation S4-A3	*484*	*27,071*	*B (17.5)*	*Moderate*	*Low*	*B (16.5)*	*B (17.5)*	*484*
Tub Mountain South	297	27,005	B (17.5)	Moderate	Low	B (16.5)	B (17.5)	297
Willow Creek	424	26,996	B (17.5)	Moderate	Low	B (16.5)	B (17.5)	424
BA-027 Caribou Bar								
Applicant's Proposed Action	1,198	8,241	C (11.0)	High	Low	C (9.5)	C (11.0)	1,198
Variation S4-A1	1,178	8,261	C (11.0)	High	Low	C (9.5)	C (11.0)	1,178
Variation S4-A2	1,547	78,92	C (11.0)	High	Low	C (9.5)	C (11.0)	1,547
Variation S4-A3	1,392	8,087	C (11.0)	High	Low	C (9.5)	C (11.0)	1,392
Tub Mountain South	2,179	7,260	C (11.0)	High	Moderate	C (9.5)	C (10.0)	9,439
Willow Creek	1,198	8,241	C (11.0)	High	Low	C (9.5)	C (11.0)	1,198
BA-028 Brownlee Reservoir								
Applicant's Proposed Action	0	332	B (15.0)	No change	Low	B (15.0)	B (15.0)	0
Variation S4-A1	*0*	*322*	*B (15.0)*	*No change*	*Low*	*B (15.0)*	*B (15.0)*	*0*
Variation S4-A2	*0*	*322*	*B (15.0)*	*No change*	*Low*	*B (15.0)*	*B (15.0)*	*0*
Variation S4-A3	*0*	*322*	*B (15.0)*	*No change*	*Low*	*B (15.0)*	*B (15.0)*	*0*
Tub Mountain South	13	900	B (15.0)	Moderate	Low	B (14.0)	B (15.0)	13
Willow Creek	0	831	B (15.0)	No change	Low	B (15.0)	B (15.0)	0
BA-031 Phipps Creek								
Applicant's Proposed Action	0	484	C (10.0)	No change	Low	C (10.0)	C (10.0)	0
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	Not applicable							
Willow Creek	Not applicable							

Table 3-428. Scenic Quality Impacts by Visual Analysis Unit for Segment 4—Brogan								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
FR-025 Juniper and Sugarloaf Mountains								
Applicant's Proposed Action	0	322	Not applicable					
Variation S4-A1	*0*	*322*	*Not applicable*					
Variation S4-A2	*0*	*322*	*Not applicable*					
Variation S4-A3	*0*	*322*	*Not applicable*					
Tub Mountain South	0	3,702	Not applicable					
Willow Creek	0	958	Not applicable					
FR-028 Brownlee Reservoir								
Applicant's Proposed Action	0	651	Not applicable					
Variation S4-A1	*0*	*651*	*Not applicable*					
Variation S4-A2	*0*	*651*	*Not applicable*					
Variation S4-A3	*0*	*651*	*Not applicable*					
Tub Mountain South	<1	4,136	Not applicable					
Willow Creek	0	2,774	Not applicable					
MA-007 Cow Valley Butte								
Applicant's Proposed Action	0	210	C (10.0)	No change	Low	C (10.0)	C (10.0)	0
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	Not applicable							
Willow Creek	Not applicable							
MA-009 Becker Creek								
Applicant's Proposed Action	2,754	7,634	C (6.5)	High	Low	C (5.0)	C (6.5)	2,754
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	Not applicable							
Willow Creek	0	1,239	C (6.5)	No change	Low	C (6.5)	C (6.5)	0

Table 3-428. Scenic Quality Impacts by Visual Analysis Unit for Segment 4—Brogan								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
MA-011 Crow Creek								
Applicant's Proposed Action	370	1,154	B (13.0)	High	Low	C (11.5)	B (13.0)	370
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	Not applicable							
Willow Creek	Not applicable							
MA-012 Gum Creek								
Applicant's Proposed Action	10,541	26,457	C (9.5)	Moderate	Moderate	C (8.5)	C (8.5)	36,998
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	901	12,090	C (9.5)	High	Moderate	C (8.0)	C (8.5)	12,991
Willow Creek	1,411	18,502	C (9.5)	Moderate	Moderate	C (8.5)	C (8.5)	19,913
MA-013 Thorn Flat								
Applicant's Proposed Action	0	313	C (9.5)	No change	Low	C (9.5)	C (9.5)	0
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	Not applicable							
Willow Creek	Not applicable							
MA-015 Juniper Mountain								
Applicant's Proposed Action	48	10,324	C (10.0)	Low	Low	C (10.0)	C (10.0)	0
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	0	4,410	C (10.0)	No change	Low	C (10.0)	C (10.0)	0
Willow Creek	0	7,115	C (10.0)	No change	Low	C (10.0)	C (10.0)	0

Table 3-428. Scenic Quality Impacts by Visual Analysis Unit for Segment 4—Brogan								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
MA-038 Hope Butte								
Applicant's Proposed Action	2,204	32,575	C (10.0)	Moderate	Moderate	C (9.0)	C (9.0)	34,779
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	3,890	21,542	C (10.0)	High	Moderate	C (8.5)	C (9.0)	25,432
Willow Creek	4,459	29,047	C (10.0)	Moderate	Moderate	C (9.0)	C (9.0)	33,506
MA-039 Treasure Valley								
Applicant's Proposed Action	0	13,669	B (17.0)	No change	Low	B (17.0)	B (17.0)	0
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	2,675	22,723	B (17.0)	High	Low	C (15.5)	B (17.0)	2,675
Willow Creek	1,895	17,788	B (17.0)	High	Low	C (15.5)	B (17.0)	1,895
MA-040 Moores Hollow								
Applicant's Proposed Action	1,530	23,126	C (11.0)	Moderate	Low	C (9.5)	C (11.0)	1,530
Variation S4-A1	*0*	*466*	*C (11.0)*	*No change*	*Low*	*C (11.0)*	*C (11.0)*	*0*
Variation S4-A2	*0*	*466*	*C (11.0)*	*No change*	*Low*	*C (11.0)*	*C (11.0)*	*0*
Variation S4-A3	*0*	*466*	*C (11.0)*	*No change*	*Low*	*C (11.0)*	*C (11.0)*	*0*
Tub Mountain South	7,993	48,445	C (11.0)	High	Low	C (9.5)	C (11.0)	7,993
Willow Creek	6,967	49,490	C (11.0)	High	Low	C (9.5)	C (11.0)	6,967
MA-119 Danger Point								
Applicant's Proposed Action	0	10,756	B (12.0)	No change	Low	B (12.0)	B (12.0)	0
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	0	11,817	B (12.0)	No change	Moderate	B (12.0)	C (11.0)	11,817
Willow Creek	0	10,756	B (12.0)	No change	Low	B (12.0)	B (12.0)	0

Table 3-428. Scenic Quality Impacts by Visual Analysis Unit for Segment 4—Brogan								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
MA-120 Alkali Flats								
Applicant's Proposed Action	Not applicable							
Variation S4-A1	*Not applicable*							
Variation S4-A2	*Not applicable*							
Variation S4-A3	*Not applicable*							
Tub Mountain South	3,071	7,793	C (8.0)	Moderate	Low	C (7.0)	C (8.0)	3,071
Willow Creek	Not applicable							

Table 3-429. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 4—Brogan				
Alternative Route	Residual Impact Level	Visual Resource Management Classes Crossed and Visible	Conformance with Visual Resource Management Objectives (Yes/No)	Visible Miles not in Conformance with Resource Management Objectives
Stationary Sensitive Viewing Platforms				
5-5 Huntington Community				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S4-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S4-A2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S4-A3	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Tub Mountain South	Moderate	IV	Yes	0.0
Willow Creek	Low	Not applicable	Not applicable	Not applicable
5-13 Farewell Bend State Recreation Area–Oregon Trail Boulevard				
Tub Mountain South	Moderate	III	Yes	0.0
	Moderate	IV	Yes	0.0
Willow Creek	Moderate	IV	Yes	0.0
5-59 Spring Wilderness Characteristic Area				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S4-A1	*Low*	*IV*	*Yes*	*0.0*
Variation S4-A2	*Low*	*IV*	*Yes*	*0.0*
Variation S4-A3	*Low*	*IV*	*Yes*	*0.0*
Tub Mountain South	Low	IV	Yes	0.0
Willow Creek	Low	IV	Yes	0.0

Table 3-429. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 4—Brogan				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
7-1 Weiser Dunes Bureau of Land Management Campsite				
Tub Mountain South	Low	III	Yes	0.0
	Low	IV	Yes	0.0
Willow Creek	Low	IV	Yes	0.0
7-6 Steck Park Bureau of Land Management Recreation Site				
Applicant's Proposed Action	Low	IV	Yes	0.0
Willow Creek	Low	IV	Yes	0.0
8-1 Alkali Springs Interpretive Site				
Tub Mountain South	Low	III	Yes	0.0
	Moderate	IV	Yes	0.0
8-3 Oregon Trail Area of Critical Environmental Concern–Birch Creek				
Tub Mountain South	High	III	No	1.7
	Low	IV	Yes	0
8-5 Bully Creek Reservoir				
Tub Mountain South	Moderate	III	Yes	0.0
	Low	IV	Yes	0
8-6 Community of Brogan				
Applicant's Proposed Action	Moderate	IV	Yes	0
Willow Creek	Low	Not applicable	Not applicable	Not applicable
8-8 Community of Jamieson				
Willow Creek	Moderate	Not applicable	Not applicable	Not applicable
8-34 South Alkali Sand Hills Area of Critical Environmental Concern				
Tub Mountain South	Low	III	Yes	0.0
	Low	IV	Yes	0.0
8-103 Tub Springs Interpretive Site				
Tub Mountain South	Low	III	Yes	0.0
	Low	IV	Yes	0.0
Linear Sensitive Viewing Platforms				
Interstate 84				
Applicant's Proposed Action	Moderate	Not applicable	Not applicable	Not applicable
Tub Mountain South	High	Not applicable	Not applicable	Not applicable
Willow Creek	Moderate	Not applicable	Not applicable	Not applicable
Variation S4-A1	*Moderate*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S4-A2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S4-A3	*High*	*Not applicable*	*Not applicable*	*Not applicable*

Table 3-429. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 4—Brogan				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
Snake River-Mormon Basin Back Country Byway				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Tub Mountain South	High	Not applicable	Not applicable	Not applicable
Willow Creek	High	Not applicable	Not applicable	Not applicable
Variation S4-A1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S4-A2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S4-A3	*High*	*Not applicable*	*Not applicable*	*Not applicable*
U. S. Highway 26				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Tub Mountain South	High	Not applicable	Not applicable	Not applicable
Willow Creek	High	Not applicable	Not applicable	Not applicable

Applicant's Proposed Action Alternative

Effects on Landscape Character and Scenic Quality

Extending generally to the southwest from the community of Huntington, until it meets with U.S. Highway 26 and turns to the southeast, the Applicant's Proposed Action Alterative crosses prominent rounded, sloping foothills with irregular converging drainages. This alternative traverses flat to soft rolling plains as well as smooth to rough mountains with jagged, and steep, rock outcrops. Of the thirteen VAUs visible within 5 miles of this alternative, five have a B scenic quality rating unit, and the rest have a C scenic quality rating. High impacts on occur on two VAUs, BA-014 Blue and Wallowa Foothills and MA-011 Cow Creek, where the B2H Project would dominate the landscape through the introduction of skylined transmission line structures. From areas in which the B2H Project would be visible, these VAUs also would experience decreases to the scenic quality rating scores. The decreases in scores would lower the scenic quality rating of VAUs BA-014 Blue and Wallowa Foothills and MA-011 Cow Creek from Class B to Class C.

Variation S4-A1

This route variation follows the same alignment as the Applicant's Proposed Action Alternative through Links 4-11 and 4-13 traversing lands that are associated with Class B scenic quality and Class C scenic quality. High impacts would occur on VAU BA-014 Blue and Wallowa Foothills west of the Burnt River. Similar to the Applicant's Proposed Action Alternative, this variation would decrease the VAU's scenic quality rating score and lower the scenic quality rating from Class B to Class C.

Variation S4-A2

This route generally extends to the southeast approximately 0.1 mile east and parallel to Variation S4-A1. Similar to Variation S4-A1, this route crosses through lands that are associated with a Class B

scenic quality and Class C scenic quality. Moderate impacts would occur on VAU BA-014 Blue and Wallowa Foothills west of the Burnt River. Similar to the Applicant's Proposed Action Alternative, this variation would decrease the VAUs scenic quality rating score and lower the scenic quality rating from Class B to Class C.

Variation S4-A3

This route follows Variation S4-A1 for approximately 0.7 mile then crosses over and follows the same alignment as Variation S4-A2 and results in similar impacts on scenic quality as Variation S4-A2.

Effects on Views

Approximately 7.1 miles of high impacts and 9.0 miles of moderate impacts on views associated with residents, recreation, and travel routes would be associated with the Applicant's Proposed Action Alternative.

Effects on Residential Views

In general, the highest impacts on residential viewers would be concentrated in two locations where residences are located less than 0.5 mile of the route alignment. In the Community of Dixie, two residences would experience high impacts on their views, in context with a smaller existing transmission line, due to unobstructed views of skylined transmission line structures over rolling mountains with low growing vegetation. The two southern most residences near U.S. Highway 26, located less than 0.5 mile from the B2H Project, would have mostly backdropped and partially skylined views of the B2H Project resulting in moderate residual impacts. The residence located north of U.S. Highway 26 would have views of the B2H Project partially skylined from an inferior viewing angle in context with smaller existing transmission lines, resulting in high impacts since the B2H Project is larger in scale and would dominate these views.

Variation S4-A1

In the Community of Dixie, two residences would experience high impacts on their views, in context with a smaller existing transmission line, due to unobstructed views of skylined transmission line structures over rolling mountains with low growing vegetation.

Variations S4-A2 and S4-A3

Impacts on residential viewers are similar to Variation S4-A1.

Effects on Recreational Views

There would be no identifiable impacts on views from stationary Sensitive Viewing Platforms or SMAs associated with recreation along the Applicant's Proposed Action Alternative. There would be views affected along linear platforms associated with recreation use. Views of the B2H Project associated with recreation from the Snake River-Mormon Back Country Byway would include partially skylined transmission line structures approximately 0.25 mile away resulting in high impacts.

Variation S4-A1

There would be no identifiable impacts on views from stationary Sensitive Viewing Platforms or SMAs associated with recreation along Variation S4-A1. There would be views affected along linear platforms

associated with recreation use. Views of the B2H Project associated with recreation from the Snake River-Mormon Back Country Byway would include partially skylined transmission line structures approximately 0.25 mile away resulting in high impacts.

Variations S4-A2 and S4-A3

Impacts on views associated with recreation uses would be similar to Variation S4-A1.

Effects on Views from Travel Routes

The highest impacts on travel routes would be associated with U.S. Highway 26. This alternative crosses the travel route with viewers experiencing a head-on point of view of the B2H Project resulting in high residual impacts. Motorists on I-84 would have visibility of the B2H Project in context with a smaller existing transmission line. With the B2H Project 0.5 mile away from the travel route, the B2H Project would be partially visible due to topographic screening and would result in moderate residual impacts due to co-location with the existing line.

Variation S4-A1

As this route variation follows the same alignment through Links 4-1, 4-10, 4-11, and 4-13 as the Applicant's Proposed Action Alternative, Variation S4-A1 would have similar impacts on views from I-84. This variation is not visible from U.S. Highway 26.

Variation S4-A2

This variation would be approximately 0.25 mile away from I-84 and highly impact views associated with this travel route as views would include partially skylined transmission line structures closer to the interstate than the existing transmission line.

Variation S4-A3

Impacts on travel routes, including I-84, are similar to Variation S4-A2 as they share alignment through Link 4-17.

Conformance with Management Objectives

This route does not cross USFS land and is in conformance with all BLM VRM Class IV lands crossed.

Variation S4-A1

Similar to the Applicant's Proposed Action Alternative, this variation would be in conformance with all BLM VRM Class IV lands crossed and does not cross USFS lands.

Variation S4-A2

Similar to the Applicant's Proposed Action Alternative, this variation would be in conformance with all BLM VRM Class IV lands crossed and does not cross USFS lands.

Variation S4-A3

Similar to the Applicant's Proposed Action Alternative, this variation would be in conformance with all BLM VRM Class IV crossed and does not cross USFS lands.

Tub Mountain South Alternative

Effects on Landscape Character and Scenic Quality

Extending generally to the south until reaching the Oregon Trail ACEC, the Tub Mountain South Alternative turns west and the heads west across prominent rounded, sloping foothills with irregular converging drainages. This alternative also crosses flat to soft rolling plains as well slightly rolling flatlands. Of the ten VAUs visible within 5 miles of this alternative, four have a B scenic quality rating unit, and the rest have a C scenic quality rating. High impacts would occur on VAU MA-039 Treasure Valley with a Class B rating. From areas in which the B2H Project would be visible, the VAUs would experience decreases in scenic quality rating scores. The decreases in scores associated with high impacts on MA-039 Treasure Valley and moderate impacts in BA-014 Blue and Wallowa Foothills and MA-119 Danger Point would result in their scenic quality rating dropping from Class B to Class C.

Effects on Views

The Tub Mountain South Alternative would have 11.6 miles more of high impacts and 9.2 miles more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

In the Community of Dixie, two residences would experience high impacts on their views, in context with a smaller existing transmission line, due to unobstructed views of skylined transmission line structures over rolling mountains with low growing vegetation. Residences located southeast of Willow Creek, less than 0.5 mile from this alternative, would experience high impacts on their views due to the unobstructed views across flat agricultural land where the B2H Project would dominate the viewshed.

Effects on Recreational Views

There are no views associated with recreation within 0.5 mile of this alternative.

Effects on Views from Travel Routes

This route approaches within 0.25 mile of I-84 and would generate high impacts on views associated with this travel route due to views of partially skylined transmission line structures. This alternative crosses U.S. Highway 26 with unobstructed views of a head-on point of view of the B2H Project and result in high residual impacts through mostly flat agricultural lands where the B2H Project would dominate the viewshed.

Conformance with Management Objectives

The Tub Mountain South Alternative does not cross USFS land, and is in conformance with all BLM VRM Class IV crossed. Views from NHT-related Sensitive Viewing Platform 8-3 (Oregon Trail Area of Critical Environmental Concern–Birch Creek) would include 1.7 miles where the B2H Project would not meet VRM Class III objectives. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Willow Creek Alternative

Effects on Landscape Character and Scenic Quality

Extending generally to the southwest until it meets with U.S. Highway 26 then extends to the south, this alternative crosses prominent rounded, sloping foothills with irregular converging drainages. It also crosses flat to soft rolling plains as well as smooth to rough mountains with jagged, and steep, rock outcrops. Of the ten VAUs visible within 5 miles of this alternative, four have a B scenic quality rating unit and the rest have a C scenic quality rating. High impacts would occur on two VAUs rated as Class B, BA-014 Blue and Wallow Foothills and MA-039 Treasure Valley. From areas in which the B2H Project would be visible, VAUs would experience decreases in scenic quality rating scores. The decreases in scores would lower the scenic quality rating of VAUs BA-014 Blue and Wallow Foothills and MA-039 Treasure Valley from Class B to Class C.

Effects on Views

The Willow Creek Alternative would have 0.4 miles less of high impacts and 5.4 miles more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

This alternative would have its highest impacts on residential viewers in two general areas. High impacts on views associated with residences in Dixie would be similar to those described for the Applicant's Proposed Action Alternative. Residences located northwest of Jamieson, less than 0.5 mile from this alternative, would have their views highly affected due to unobstructed views across flat agricultural lands where the B2H Project would dominate the viewshed.

Effects on Recreational Views

Similar to the Applicant's Proposed Action Alternative through Link 4-1, there would be no identifiable impacts on views from stationary Sensitive Viewing Platforms or SMAs associated with recreation uses along this alternative. There would be views affected along linear platforms associated with recreation use. Views of the B2H Project from the Snake River-Mormon Back Country Byway would include partially skylined transmission line structures located approximately 0.25 mile away resulting in high impacts.

Effects on Views from Travel Routes

Impacts on views from travel routes would be similar to those associated with the Applicant's Proposed Action Alternative.

Conformance with Management Objectives

The Willow Creek Alternative does not cross USFS land, and would be conformance with all BLM VRM Class IV lands crossed.

Conclusions

Impacts associated with the alternatives and variations within Segment 4 vary based on the types of effects being considered (e.g. landscape character and scenic quality, types of viewers, and

conformance with management objectives). The highest impacts on landscape character and scenic quality would be associated with the Applicant's Proposed Action Alternative because this alignment crosses the greatest amount of undeveloped landscape. The Tub Mountain South Alternative would result in the least amount of impact on landscape character and scenic quality. This alignment is colocated with existing transmission lines for the greatest distance and traverses a slightly greater amount of agricultural and ranching landscapes that include existing cultural modifications. However, the Tub Mountain South Alternative would result in the highest impacts on viewers. While the Willow Creek Alternative would have the least amount of impact on viewers using travel routes, the Applicant's Proposed Action Alternative would result in the least amount of impacts on both residential and recreational viewers.

The Tub Mountain South Alternative would result in non-conformance with BLM VRM Classes in the vicinity of KOP 8-3. The Applicant's Proposed Action Alternative and Willow Creek alternatives would conform to management objectives.

SEGMENT 5—MALHEUR

The following narrative discussions describe the impacts associated with each alternative in Segment 5. Additional details regarding these analyses can be found in Table 3-430, Table 3-431, and Table 3-432. Table 3-431 presents the scenic quality impacts by VAU for each alternative route and route variation within Segment 5. This table includes the acreage within the foreground and middleground of each VAU that would have views of each alternative alignment. The existing scenic quality rating of each VAU also is included in this table, along with the residual scenic quality rating and score for both the foreground and middleground acreage. These residual scenic quality scores are based on the amount of change in score anticipated based on the criteria presented in Table 3-431.

Potential impacts on viewers are represented in Table 3-430 and Table 3-432. Table 3-430 presents an overall comparison of impacts on viewers, as measured in miles of high, moderate, and low impacts. The mileages of impacts are associated with the impacts as they relate back to the alignment of each alternative in Segment 5. This table also includes the total mileage of each alignment. Table 3-432 presents specific impacts anticipated from Sensitive Viewing Platforms, along with the status of conformance with BLM VRM objectives for BLM-related Sensitive Viewing Platforms within Segment 5. Each assessment of conformance also is accompanied by the length of the alternative that can be viewed crossing the associated BLM VRM Class(es).

Conformance issues with USFS VQOs are not presented in this segment. USFS is not affected by Segment 5—Malheur.

At the end of this section is a conclusion of the impacts on Segment 5, which provides an overview of impacts as well as to which alternative routes and/or variations would be preferable. Because there are several facets to consider when analyzing potential impacts on visual resources (e.g. landscape character and scenic quality, viewers, and plan conformance), this overview provides preferences associated with each of those facets.

Table 3-430. Residual Impacts on Viewers for Segment 5—Malheur				
Alternative Route	Total Length (miles)	Residual Impacts (miles)		
		High	Moderate	Low
Applicant's Proposed Action	40.4	8.7	10.8	20.9
Variation S5-A1	*7.4*	*0.9*	*0.4*	*6.1*
Variation S5-A2	*7.4*	*2.3*	*2.3*	*2.8*
Variation S5-B1	*2.5*	*2.1*	*0.4*	*0.0*
Variation S5-B2	*2.8*	*2.1*	*0.7*	*0.0*
Malheur S	43.5	9.2	13.4	20.9
Malheur A	43.1	8.1	15.8	19.2

Table 3-431. Scenic Quality Impacts by Visual Analysis Unit for Segment 5—Malheur								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	MIddleground	
MA-012 Gum Creek								
Applicant's Proposed Action	1,878	11,113	C (9.0)	High	Low	C (7.5)	C (9.0)	1,878
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							
Malheur S	1,878	11,113	C (9.0)	High	Low	C (7.5)	C (9.0)	1,878
Malheur A	1,878	11,113	C (9.0)	High	Low	C (7.5)	C (9.0)	1,878
MA-015 Juniper Mountain								
Applicant's Proposed Action	0	4,457	B (14.5)	No change	Low	B (14.5)	B (14.5)	0
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							
Malheur S	0	4,457	B (14.5)	No change	Low	B (14.5)	B (14.5)	0
Malheur A	0	4,457	B (14.5)	No change	Low	B (14.5)	B (14.5)	0
MA-038 Hope Butte								
Applicant's Proposed Action	0	14,399	C (10.0)	No change	Low	C (10.0)	C (10.0)	0
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							

Table 3-431. Scenic Quality Impacts by Visual Analysis Unit for Segment 5—Malheur								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Malheur S	0	14,399	C (10.0)	No change	Low	C (10.0)	C (10.0)	0
Malheur A	0	14,399	C (10.0)	No change	Low	C (10.0)	C (10.0)	0
MA-039 Treasure Valley								
Applicant's Proposed Action	528	42,217	B (17.0)	High	Moderate	B (15.5)	B (16.0)	42,745
Variation S5-A1	*0*	*10,072*	*B (17.0)*	*No change*	*Low*	*B (17.0)*	*B (17.0)*	*0*
Variation S5-A2	*0*	*7,211*	*B (17.0)*	*No change*	*Low*	*B (17.0)*	*B (17.0)*	*0*
Variation S5-B1	*487*	*15,628*	*B (17.0)*	*High*	*Moderate*	*B (15.5)*	*B (16.0)*	*16,115*
Variation S5-B2	*975*	*15,263*	*B (17.0)*	*High*	*Moderate*	*B (15.5)*	*B (16.0)*	*16,238*
Malheur S	0	20,158	B (17.0)	No change	Low	B (17.0)	B (17.0)	0
Malheur A	0	18,500	B (17.0)	No change	Low	B (17.0)	B (17.0)	0
MA-041 Sourdough Basin								
Applicant's Proposed Action	13,382	56,660	C (9.5)	High	Moderate	C (8.0)	C (8.5)	70,042
Variation S5-A1	*5,221*	*50,426*	*C (9.5)*	*High*	*Moderate*	*C (8.0)*	*C (8.5)*	*55,647*
Variation S5-A2	*5,223*	*52,290*	*C (9.5)*	*High*	*Moderate*	*C (8.0)*	*C (8.5)*	*57,513*
Variation S5-B1	*0*	*11,968*	*C (9.5)*	*No change*	*Moderate*	*C (9.5)*	*C (8.5)*	*11,968*
Variation S5-B2	*0*	*11,968*	*C (9.5)*	*No change*	*Moderate*	*C (9.5)*	*C (8.5)*	*11,968*
Malheur S	9,825	60,571	C (9.5)	High	Moderate	C (8.0)	C (8.5)	70,396
Malheur A	9,991	58,986	C (9.5)	High	Moderate	C (8.0)	C (8.5)	68,977
MA-044 Westfall/Harper Valley								
Applicant's Proposed Action	0	2,472	B (12.0)	No change	Low	B (12.0)	B (12.0)	0
Variation S5-A1	*0*	*1,402*	*B (12.0)*	*No change*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S5-A2	*0*	*1,402*	*B (12.0)*	*No change*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							
Malheur S	0	2,472	B (12.0)	No change	Low	B (12.0)	B (12.0)	0
Malheur A	0	2,472	B (12.0)	No change	Low	B (12.0)	B (12.0)	0
MA-058 Hoodoo Ridge								
Applicant's Proposed Action	0	11,806	C (8.5)	No change	Low	C (8.5)	C (8.5)	0
Variation S5-A1	*0*	*13,123*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S5-A2	*0*	*13,123*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							

Table 3-431. Scenic Quality Impacts by Visual Analysis Unit for Segment 5—Malheur								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Malheur S	5,168	26,944	C (8.5)	High	Moderate	C (7.0)	C (8.5)	32,112
Malheur A	5,168	26,944	C (8.5)	High	Moderate	C (7.0)	C (8.5)	32,112
MA-059 Grassy Mountain								
Applicant's Proposed Action	Not applicable							
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							
Malheur S	0	3,992	B (11.5)	No change	Low	B (11.5)	B (11.5)	0
Malheur A	40	3,955	B (11.5)	Low	Low	B (11.5)	B (11.5)	0
MA-060 Owyhee Tunnel								
Applicant's Proposed Action	3,353	19,760	B (11.5)	High	Low	C (9.0)	B (11.5)	3,353
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*1,475*	*17,900*	*B (11.5)*	*High*	*Low*	*C (9.0)*	*B (11.5)*	*1,475*
Variation S5-B2	*1,184*	*18,159*	*B (11.5)*	*High*	*Low*	*C (9.0)*	*B (11.5)*	*1,184*
Malheur S	4,203	19,582	B (11.5)	High	Moderate	C (9.0)	C (10.5)	23,785
Malheur A	3,340	16,326	B (11.5)	High	Moderate	C (9.0)	C (10.5)	19,666
MA-073 Iron Mountain								
Applicant's Proposed Action	Not applicable							
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							
Malheur S	0	2,833	A (21.0)	No change	Moderate	A (21.0)	A (20.0)	2,833
Malheur A	0	3,620	A (21.0)	No change	Low	A (21.0)	A (21.0)	0
MA-074 Board Coral								
Applicant's Proposed Action	0	2,503	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							

Table 3-431. Scenic Quality Impacts by Visual Analysis Unit for Segment 5—Malheur								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Malheur S	267	5,137	C (10.5)	High	Moderate	C (9.0)	C (9.5)	5,404
Malheur A	930	4,665	C (10.5)	High	High	C (9.0)	C (9.0)	5,595
MA-075 North Alkali								
Applicant's Proposed Action	4,436	19,507	C (8.5)	High	Moderate	C (7.0)	C (7.5)	23,943
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*0*	*3,726*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S5-B2	*0*	*3,726*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Malheur S	3,168	21,030	C (8.5)	High	Moderate	C (7.0)	C (7.5)	24,198
Malheur A	2,846	21,619	C (8.5)	High	Moderate	C (7.0)	C (7.5)	24,465
MA-077 Antelope Springs								
Applicant's Proposed Action	0	7,163	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							
Malheur S	0	7,163	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Malheur A	0	7,163	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
MA-078 Succor Creek								
Applicant's Proposed Action	48	894	A (19.0)	Low	Low	A (19.0)	A (19.0)	0
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							
Malheur S	48	894	A (19.0)	Moderate	Low	B (18.0)	A (19.0)	48
Malheur A	48	894	A (19.0)	Moderate	Low	B (18.0)	A (19.0)	48
MA-119 Danger Point								
Applicant's Proposed Action	2,248	20,916	B (12.0)	High	Low	C (10.5)	B (12.0)	2,248
Variation S5-A1	*0*	*11,383*	*B (12.0)*	*No change*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S5-A2	*0*	*11,383*	*B (12.0)*	*No change*	*Low*	*B (12.0)*	*B (12.0)*	*0*
Variation S5-B1	*Not applicable*							
Variation S5-B2	*0*	*850*	*B (12.0)*	*No change*	*Low*	*B (12.0)*	*B (12.0)*	*0*

Table 3-431. Scenic Quality Impacts by Visual Analysis Unit for Segment 5—Malheur								
Alternative Route	**Acres Visible**		**Existing Scenic Quality Class (Rating)**	**Residual Impact Level**		**Residual Scenic Quality Class (Rating)**		**Total Change in Scenic Quality Rating (in acres)**
	Foreground	**Middleground**		**Foreground**	**Middleground**	**Foreground**	**Middleground**	
Malheur S	2,248	20,916	B (12.0)	High	Low	C (10.5)	B (12.0)	2,248
Malheur A	2,248	20,916	B (12.0)	High	Low	C (10.5)	B (12.0)	2,248
MA-121 Big Sage Flat								
Applicant's Proposed Action	0	2,695	B (13.0)	No change	Low	B (13.0)	B (13.0)	0
Variation S5-A1	*0*	*1,084*	*B (13.0)*	*No change*	*Low*	*B (13.0)*	*B (13.0)*	*0*
Variation S5-A2	*0*	*1,084*	*B (13.0)*	*No change*	*Low*	*B (13.0)*	*B (13.0)*	*0*
Variation S5-B1	*0*	*771*	*B (13.0)*	*No change*	*Low*	*B (13.0)*	*B (13.0)*	*0*
Variation S5-B2	*Not applicable*							
Malheur S	Not applicable							
Malheur A	Not applicable							
MA-122 Owyhee River								
Applicant's Proposed Action	166	2,973	A (19.0)	High	Low	B (17.5)	A (19.0)	166
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*166*	*2,691*	*A (19.0)*	*High*	*Low*	*B (17.5)*	*A (19.0)*	*166*
Variation S5-B2	*105*	*2,633*	*A (19.0)*	*Moderate*	*Low*	*B (18.0)*	*A (19.0)*	*105*
Malheur S	1,233	4,655	A (19.0)	High	Low	B (17.5)	A (19.0)	1,233
Malheur A	1,220	4,072	A (19.0)	High	Low	B (17.5)	A (19.0)	1,220
OW-001 Owyhee Mountains								
Applicant's Proposed Action	0	1,339	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							
Malheur S	0	1,339	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Malheur A	0	1,339	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
OW-019 Treasure Valley								
Applicant's Proposed Action	0	7,802	B (13.5)	No change	Low	B (13.5)	B (13.5)	0
Variation S5-A1	*Not applicable*							
Variation S5-A2	*Not applicable*							
Variation S5-B1	*Not applicable*							
Variation S5-B2	*Not applicable*							

Table 3-431. Scenic Quality Impacts by Visual Analysis Unit for Segment 5—Malheur								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Malheur S	0	7,228	B (13.5)	No change	Low	B (13.5)	B (13.5)	0
Malheur A	0	6,741	B (13.5)	No change	Low	B (13.5)	B (13.5)	0

Table 3-432. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 5—Malheur				
Alternative Route	Residual Impact Level	Visual Resource Management Classes Crossed and Visible	Conformance with Visual Resource Management Objectives (Yes/No)	Visible Miles not in Conformance with Resource Management Objectives
Stationary Sensitive Viewing Platforms				
8-4 Buck Gulch Proposed Wilderness Study Area				
Applicant's Proposed Action	Low	IV	Yes	0.0
Malheur S	Low	IV	Yes	0.0
Malheur A	High	IV	Yes	0.0
8-18 Lake Owyhee State Park				
Malheur S	Low	III	Yes	0.0
8-21 McIntyre Ridge Proposed Wilderness Study Area				
Malheur A	Low	IV	Yes	0.0
8-33 Double Mountain Wilderness Characteristic Inventory Unit – Twin Spring Road North				
Applicant's Proposed Action	High	IV	Yes	0.0
Variation S5-A1	*High*	*IV*	*Yes*	*0.0*
Variation S5-A2	*High*	*IV*	*Yes*	*0.0*
8-51 Big Bend Launch Site				
Applicant's Proposed Action	Low	IV	Yes	0.0
Malheur S	Low	IV	Yes	0.0
Malheur A	Low	IV	Yes	0.0
8-52 Lower Owyhee Interpretive Site				
Applicant's Proposed Action	High	II	No	0.5
Variation S5-B1	*High*	*II*	*No*	*0.5*
Variation S5-B2	*Low*	*III*	*Yes*	*0.0*
Malheur S	None	Not applicable	Not applicable	Not applicable
Malheur A	None	Not applicable	Not applicable	Not applicable
8-74 McIntyre Ridge Wilderness Characteristic Area – Succor Creek Road				
Malheur S	Low	IV	Yes	0.0
Malheur A	Low	IV	Yes	0.0

Table 3-432. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 5—Malheur				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
8-84 Burnt Mountain Wilderness Characteristic Area – Old Mormon hand cart trail				
Malheur S	Low	IV	Yes	0.0
Malheur A	High	II	No	1.1
8-85 Sourdough Mountain Wilderness Characteristic Area – Twin Spring Road				
Malheur S	High	IV	Yes	0.0
Malheur A	High	IV	Yes	0.0
8-88 Broken Rim Wilderness Characteristic Area – Hoo Doo Road North				
Applicant's Proposed Action	Low	Not applicable	Not applicable	Not applicable
Variation S5-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S5-A2	*Low*	*IV*	*Yes*	*0.0*
Malheur S	High	IV	Yes	0.0
Malheur A	High	IV	Yes	0.0
8-90 Double Mountain Wilderness Characteristic Inventory Unit – Negro Rock Creek North				
Applicant's Proposed Action	Low	III	Yes	0.0
	Low	IV	Yes	0.0
Variation S5-A1	*Low*	*IV*	*Yes*	*0.0*
Variation S5-A2	*High*	*IV*	*Yes*	*0.0*
Malheur S	Low	III	Yes	0.0
	Low	IV	Yes	0.0
Malheur A	Low	III	Yes	0.0
	Low	IV	Yes	0.0
8-91 Double Mountain Wilderness Characteristic Inventory Unit – Twin Spring Road South				
Malheur S	Low	III	Yes	0.0
	Low	IV	Yes	0.0
Malheur A	Low	III	Yes	0.0
	Low	IV	Yes	0.0
8-93 Double Mountain Wilderness Characteristic Inventory Unit – Negro Rock Creek Middle				
Malheur S	Low	IV	Yes	0.0
Malheur A	Low	IV	Yes	0.0
8-94 Double Mountain Wilderness Characteristic Inventory Unit – Negro Rock Creek South				
Malheur S	High	IV	Yes	0.0
Malheur A	High	IV	Yes	0.0
8-95 Owyhee Canyon Recreation Site				
Malheur S	Low	II	Yes	0.0
Malheur S	Low	IV	Yes	0.0
Malheur A	High	II	No	0.8

Table 3-432. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 5—Malheur

Alternative Route	Residual Impact Level	Visual Resource Management Classes Crossed and Visible	Conformance with Visual Resource Management Objectives (Yes/No)	Visible Miles not in Conformance with Resource Management Objectives
8-96 Owyhee River Recreation Site				
Malheur S	Moderate	II	No	0.7
Malheur A	Moderate	II	No	0.6
8-102 Succor Creek Rural Area				
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Malheur S	Moderate	IV	Yes	0.0
Malheur A	Moderate	IV	Yes	0.0
13-1 Owyhee Wild and Scenic River				
Applicant's Proposed Action	High	II	No	1.5
	High	III	No	0.3
	Low	IV	Yes	0.0
Variation S5-B1	*High*	*II*	*No*	*1.1*
	High	*III*	*No*	*0.3*
	Low	*IV*	*Yes*	*0.0*
Variation S5-B2	*Moderate*	*II*	*No*	*0.1*
	Moderate	*III*	*Yes*	*0.0*
Linear Sensitive Viewing Platforms				
Mitchell Butte Road				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S5-B1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S5-B2	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Malheur A	Low	Not applicable	Not applicable	Not applicable
Malheur S	Low	Not applicable	Not applicable	Not applicable
Owyhee River Canyon Road				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S5-B1	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Variation S5-B2	*High*	*Not applicable*	*Not applicable*	*Not applicable*
Malheur A	High	Not applicable	Not applicable	Not applicable
Malheur S	High	Not applicable	Not applicable	Not applicable
U.S. Highway 20				
Applicant's Proposed Action	High	Not applicable	Not applicable	Not applicable
Variation S5-A1	*Low*	*Not applicable*	*Not applicable*	*Not applicable*
Malheur A	High	Not applicable	Not applicable	Not applicable
Malheur S	High	Not applicable	Not applicable	Not applicable

Applicant's Proposed Action Alternative

Effects on Landscape Character and Scenic Quality

Extending generally to the southeast the Applicant's Proposed Action Alternative crosses prominent, smooth to rough foothills with steeply sloping, contrasting rock outcrops. The alternative also crosses rolling, flat-topped buttes with horizontal rock bands and tops; incised drainages adjacent to Owyhee River, flat to soft rolling plains, and smooth to rough mountains with jagged, and steep, rock outcrops. Of the seventeen VAUs visible within 5 miles of this alternative, one has a Class A scenic quality rating, seven have a B scenic quality rating, and the rest have a C scenic quality rating. Impacts on the Class A VAU, MA-078 Succor Creek would be low in magnitude. High impacts would occur on 4 Class B VAUs (MA-039 Treasure Valley, MA-060 Owyhee Tunnel, MA-119 Danger Point, and MA-122 Owyhee River) through the introduction of skylined transmission structures which would locally dominate scenic quality. The introduction of the B2H Project would lower scenic quality scores in these Class B Landscapes and in regard to MA-060 Owyhee Tunnel and MA-119 Danger Point, lower the scenic quality rating from Class B to Class C in the foreground distance zone.

Variation S5-A1

This variation follows the same alignment as the Applicant's Proposed Alternative Action through Link 5-15, and is located entirely within VAU MA-041 (Sourdough Basin) generating high impacts.

Variation S5-A2

This variation would have similar effects on scenic quality as Variation S5-A1.

Variation S5-B1

This variation follows the same alignment as the Applicant's Proposed Alternative Action through Links 5-50, 5-55, and 5-65, and crosses over the Owyhee River through valleys and prominent, smooth to rough foothills with steeply sloping, contrasting rock outcrops. High impacts would occur on 3 Class B VAUs (MA-039 Treasure Valley, MA-060 Owyhee Tunnel, and MA-122 Owyhee River) through the introduction of skylined transmission structures which would locally dominate scenic quality. The introduction of the B2H Project would lower scenic quality scores in these Class B Landscapes and in regard to MA-060 Owyhee Tunnel, lower the scenic quality rating from Class B to Class C in the foreground distance zone.

Variation S5-B2

This variation would have similar effects on scenic quality as Variation S5-B1 except moderate impacts on VAU MA-122 (Owyhee River) as the B2H Project would be located further to the east in agricultural lands. For visual simulation of alternative, refer to Appendix H3.

Effects on Views

Approximately 8.7 miles of high impacts and 10.8 miles of moderate impacts on views associated with residences, recreation, and travel routes would be associated with the Applicant's Proposed Action Alternative.

Effects on Residential Views

The only impacts on residential viewers would occur in one location where a residence is located 0.5 mile from the route alignment. This residence would experience partially skylined, partially backdropped views of the B2H Project crossing the Owyhee River.

Variation S5-A1

This variation shares the same alignment as the Applicant's Proposed Action Alternative. There would be no residences located in proximity to the B2H Project in this area.

Variation S5-A2

Located south of Variation S5-A1, this variation also would not have any impacts due to the distance from any residential views.

Variation S5-B1

This variation shares the same alignment as the Applicant's Proposed Action Alternative east of the Owyhee River and would have similar impacts on views associated with residential views.

Variation S5-B2

Found northeast of Variation S5-B1, this variation would affect more views associated with residences within 0.5 mile of the B2H Project than Variation S5-B1. While these residences are found on the agricultural land found on the valley floor, they would have views of the B2H Project route traversing the steep slopes, creating partially to fully skylined views of the route.

Effects on Recreational Views

There would be impacts on views from several stationary Sensitive Viewing Platforms associated with recreation. Sensitive Viewing Platform 8-33 (Double Mountain-Twin Spring Rd North) would experience a wide panoramic view of the partially skylined B2H Project generating a high residual impact level. Views from Sensitive Viewing Platform 8-52 (Lower Owyhee Interpretive Site) would be highly affected by the B2H Project due to inferior point of view of the skylined transmission line structures. Sensitive Viewing Platform 13-1 (Owyhee WSR) would experience high impacts with unobstructed views of the B2H Project from less than 0.5 mile away. This Sensitive Viewing Platform would have superior to inferior views of skylined to partially backdropped transmission line structures as the B2H Project crosses the Owyhee River and the adjacent steep canyon walls.

The Owyhee Below the Dam ACEC would have views of the Applicant's Proposed Action Alternative. Recreational viewers associated with this ACEC would be highly affected by the B2H Project similar to those described for Sensitive Viewing Platforms 8-52 and 13-1.

Variation S5-A1

This variation shares the same alignment as the Applicant's Proposed Action Alternative, adjacent to Sensitive Viewing Platform 8-33 (Double Mountain-Twin Spring Rd North), resulting in high impact on these views

Variation S5-A2

Found south of Variation S5-A1, this variation would highly affect views from Sensitive Viewing Platform 8-90 (Double Mountain Wilderness Characteristic Inventory Unit – Negro Rock Creek North) due to unobstructed views of the B2H Project in an area with limited existing modifications. Similar high impacts on Sensitive Viewing Platform 8-33 (Double Mountain-Twin Spring Rd North) would occur along this route variation.

Variation S5-B1

This variation shares the same alignment as the Applicant's Proposed Action Alternative across the Owyhee River resulting in the same high impacts on views from Sensitive Viewing Platform 8-52 (Lower Owyhee Interpretive Site), Sensitive Viewing Platform 13-1 Owyhee (WSR) and the Owyhee Below the Dam ACEC.

Variation S5-B2

Since this variation is located further to the northeast, with topographic screening opportunities from the steep canyon walls, it would have reduced impacts on views from Sensitive Viewing Platform 8-52 (Lower Owyhee Interpretive Site), Sensitive Viewing Platform 13-1 Owyhee (WSR), and the Owyhee Below the Dam ACEC.

Effects on Views from Travel Routes

High impacts would occur on the following travel routes: U.S. Highway 20, Mitchell Butte Road, and Owyhee River Canyon Road. This alternative crosses the mentioned travel routes, and result in continuous head-on views of the B2H Project until viewers would cross directly underneath the project components.

Views from U.S. Highway 20 would be highly affected in low rolling hills with low growing vegetation. Views of the B2H Project would be mostly unobstructed yet viewers of the travel route also would experience existing transmission lines paralleling the highway. Mitchell Butte Road would have its views highly affected by the B2H Project due to skylined transmission line structures through rolling hills with low growing vegetation. Views from the Owyhee River Canyon Road would be highly affected due to views of skylined transmission line structures and turning structures crossing the river valley with steep, undulating sidewalls and jagged rock outcroppings/cliffs over the Owyhee River.

Variations S5-A1 and S5-A2

These variations would not have any impacts on views associated with travel routes due to the distance away from the nearest travel route.

Variation S5-B1

This variation follows the alignment of the Applicant's Proposed Action Alternative and would have similar impacts on views associated with the Owyhee River Canyon Road travel route.

Variation S5-B2

This variation would have a lower duration of high impacts on views associated with the Owyhee River Canyon Road travel route due to the landscape being crossed by the B2H Project is less steeply sloping than the landscape crossed by Variation S5-B1.

Conformance with Management Objectives

This route does not cross USFS land; however, it does cross BLM VRM Class II and Class III lands. The B2H Project would not be in conformance with the BLM VRM Class Objectives adjacent to Sensitive Viewing Platforms 8-52 (Lower Owyhee Interpretive Site) and 13-1 (Owyhee Wild and Scenic River). Specifically, 1.8 miles of the B2H Project would be visible crossing BLM VRM Class II and Class III lands. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Variations S5-A1 and S5-A2

These variations would be in conformance with objectives associated with BLM VRM Class IV where crossed

Variation S5-B1

As this variation shares the same alignment as the Applicant's Proposed Action Alternative, the B2H Project would not be in conformance with BLM VRM Class II and III objectives as viewed from Sensitive Viewing Platforms 8-52 (Lower Owyhee Interpretive Site) and 13-1 (Owyhee Wild and Scenic River) for 1.8 miles. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Variation S5-B2

This variation would not be in conformance with BLM VRM Class II Objectives as viewed from Sensitive Viewing Platform 13-1 (Owyhee Wild and Scenic River) for 0.1 mile. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Malheur S Alternative

Effects on Landscape Character and Scenic Quality

This route shares an alignment through Link 5-5 just prior to crossing U.S. Highway 20 with the Applicant's Proposed Action Alternative extending to the southeast and would continue south after crossing U.S. Highway 20 and eventually extend to the southeast. This alternative crosses flat to rolling uplands with basalt scree patches as well as prominent smooth to rough foothills with steeply sloping, contrasting rock outcrops. It also crosses rolling, flat-topped buttes with horizontal rock bands and tops, flat to soft rolling plains, and smooth to rough mountains with jagged, and steep, rock outcrops. Of these eighteen VAUs visible within 5 miles of this alternative, two have a Class A scenic quality rating, eight have a B scenic quality rating, and the rest have a C scenic quality rating. No Class A landscapes would be highly affected by the Malheur S Alternative. Three Class B VAUs (MA-060 Owyhee Tunnel, MA-119 Danger Point, and MA-122 Owyhee River) would be highly affected as the local setting would

be dominated by the B2H Project. From areas in which the B2H Project would be visible, these VAUs also would experience decreases to their scenic quality rating scores. The decreases in scores would lower the scenic quality in VAUs MA-060 Owyhee Tunnel and MA-119 Danger Point from Class B to Class C in the foreground, and for VAU MA-078 Succor Creek (Class A), the rating would be lowered in the foreground to Class B.

Effects on Views

The Malheur S Alternative would have 0.5 mile more of high impacts and 2.6 miles more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

This route would only affect one residence along the Owyhee River that would have views of the B2H Project within 0.5 mile. The B2H Project would introduce views of skylined transmission line structures over moderately steep mountains crossing over the valley floor. The B2H Project would be partially screened by vegetation surrounding the residence.

Effects on Recreational Views

Views from Sensitive Viewing Platform 8-94 (Double Mountain Wilderness Characteristic Inventory Unit – Negro Rock Creek South) would be highly affected due to panoramic views of unobstructed partially backdropped transmission line structures from a level viewing angle of view. Views from Sensitive Viewing Platform 8-85 (Sourdough Mountain Wilderness Characteristic Area – Twin Spring Road) would be highly affected due to views of partially backdropped partially skylined transmission line structures

Viewers located in the Owyhee Below the Dam ACEC would have views highly affected, due to the B2H Project crossing the ACEC, for approximately 4.5 miles.

Effects on Views from Travel Routes

The Malheur S Alternative would result in a high degree of impact on U.S. Highway 20 and the Owyhee River Canyon Road. The alternative would directly cross these travel routes, and result in continuous head-on views of the B2H Project until viewers would cross underneath the project components. Views from Owyhee River Canyon Road would occur further upstream into the canyon in comparison with the Applicant's Proposed Action Alternative, and would be viewed in context with an existing 500-kV transmission line that crosses the canyon within approximately 1 mile of the proposed Malheur S Alternative. The Malheur S Alternative would result in low impacts on Mitchell Butte Road.

Conformance with Management Objectives

The Malheur S Alternative does not cross USFS land. This route would not be in conformance with VRM Class II objectives on views from Sensitive Viewing Platform 8-96 (Owyhee River Recreation Site) for 0.7 mile. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Malheur A Alternative

Effects on Landscape Character and Scenic Quality

Since the majority of the Malheur A Alternative follows the same alignment as the Malheur S Alternative, the impacts on Landscape Character and Scenic Quality would be similar to those generated by the Malheur S Alternative except where MA-122 Owyhee River is crossed by Link 5-35, this alternative is located in closer proximity to an existing 500-kV transmission line reducing the effects associated with the B2H Project on the landscape since the setting has already been modified by this existing line.

Effects on Views

The Malheur A Alternative would have 0.6 mile less of high impacts and 5.0 miles more of moderate impacts than the Applicant's Proposed Action Alternative on views associated with residents, recreation, and travel routes.

Effects on Residential Views

This alternative would highly affect views from a single residence along the Owyhee River, located between the B2H Project and the existing 500-kV transmission line, due to unobstructed views of skylined transmission line structures.

Effects on Recreational Views

Views from Sensitive Viewing Platform 8-4 (Buck Gulch Proposed Wilderness Study Area) would be highly affected due to panoramic views of a mostly skylined B2H Project. Views from Sensitive Viewing Platform 8-84 (Burnt Mountain Wilderness Characteristic Area – Old Mormon hand cart trail) also would be highly affected by the B2H Project due to views of multiple turning structures and skylined transmission line structures. Viewers associated with the Owyhee Below the Dam ACEC would experience similar impacts as the Malheur S Alternative.

Effects on Views from Travel Routes

The Malheur A Alternative would result in a high degree of impact on U.S. Highway 20 and the Owyhee River Canyon Road. The alternative would directly cross these travel routes, and result in continuous head-on views of the B2H Project until viewers would cross underneath the project components. Views from Owyhee River Canyon Road would occur further upstream into the canyon in comparison with the Applicant's Proposed Action Alternative, and would be viewed in close context with an existing 500-kV transmission line that crosses the canyon within approximately 0.3 mile of the proposed Malheur A Alternative. The Malheur A Alternative would result in low impacts on Mitchell Butte Road.

Conformance with Management Objectives

The Malheur A Alternative would not be in conformance with VRM Class II objectives as viewed from Sensitive Viewing Platforms 8-96 (Owyhee River Recreation Site) and 8-95 (Owyhee Canyon Recreation Site) for a total of 1.7 miles. Areas of non-conformance with BLM VRM Class Objectives, resulting in a project-specific RMP amendment, are discussed in Section 3.4.

Conclusions

Impacts associated with the alternatives and variations within Segment 5 vary based on the types of effects being considered (e.g. landscape character and scenic quality, types of viewers, and conformance with management objectives). The Applicant's Proposed Action Alternative would result in a high level of impacts on landscape character and scenic quality because it traverses landscapes that are mostly undeveloped. Although both the Malheur A and Malheur S alternatives also cross primarily undeveloped lands, these alternatives are partially colocated with existing 500-kV transmission line and thus would have fewer impacts. The Malheur A Alternative parallels the existing transmission line for a greater distance than the Malheur S Alternative.

The Malheur A Alternative would have the lowest impacts on both residential viewers and viewers using travel routes. However, the Applicant's Proposed Action Alternative would have lower impacts on recreational viewers since it would be adjacent to and visible from less recreational viewing platforms. Variation S5-B2 would have even fewer effects on viewers than the Applicant's Proposed Action Alternative.

All three of the alternatives within Segment 5 would result in non-conformance with BLM objectives. The Malheur S Alternative would result in the least amount of non-conformance, and unlike the other two alternatives, would have non-conformance issues from only one KOP. The preferred route from the perspective of conformance with management objectives would therefore be the Malheur S Alternative, and the S5-B2 variation of this alternative would further reduce the amount of non-conformance.

SEGMENT 6—TREASURE VALLEY

The following narrative discussions describe the impacts associated with each alternative in Segment 6. Additional details regarding these analyses can be found in Table 3-433, Table 3-434, and Table 3-435. Table 3-434 presents the scenic quality impacts by VAU for each alternative route and route variation within Segment 6. This table includes the acreage within the foreground and middleground of each VAU that would have views of each alternative alignment. The existing scenic quality rating of each VAU also is included in this table, along with the residual scenic quality rating and score for both the foreground and middleground acreage. These residual scenic quality scores are based on the amount of change in score anticipated based on the criteria presented in Table 3-434.

Potential impacts on viewers are represented in Table 3-433 and Table 3-435. Table 3-434 presents an overall comparison of impacts on viewers, as measured in miles of high, moderate, and low impacts. The mileages of impacts are associated with the impacts as they relate back to the alignment of each alternative in Segment 6. This table also includes the total mileage of each alignment. Table 3-435 presents specific impacts anticipated from Sensitive Viewing Platforms, along with the status of conformance with BLM VRM objectives for BLM-related Sensitive Viewing Platforms within Segment 6. Each assessment of conformance also is accompanied by the length of the alternative that can be viewed crossing the associated BLM VRM Class(es).

Conformance with USFS VQOs is not presented in this segment. USFS is not affected by Segment 6—Treasure Valley.

At the end of this section is a conclusion of the impacts on Segment 6, which provides an overview of impacts as well as to which alternative routes and/or variations would be preferable. Because there are several facets to consider when analyzing potential impacts on visual resources (e.g. landscape character and scenic quality, viewers, and plan conformance), this overview provides preferences associated with each of those facets.

Table 3-433. Residual Impacts on Viewers for Segment 6—Treasure Valley

Alternative Route	Total Length (miles)	Residual Impacts (miles)		
		High	Moderate	Low
Applicant's Proposed Action	28.0	2.3	11.3	14.4
Variation S6-A1	*9.3*	*1.8*	*2.0*	*5.5*
Variation S6-A2	*8.9*	*1.1*	*3.5*	*4.3*
Variation S6-B1	*14.4*	*0.5*	*7.5*	*6.4*
Variation S6-B2	*14.1*	*1.1*	*6.2*	*6.8*

Table 3-434. Scenic Quality Impacts by Visual Analysis Unit for Segment 6—Treasure Valley

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
FR-029 Snake River/Given Hot Springs								
Applicant's Proposed Action	0	9,066	Not applicable					
Variation S6-A1	*Not applicable*							
Variation S6-A2	*Not applicable*							
Variation S6-B1	*0*	*5,811*	*Not applicable*					
Variation S6-B2	*0*	*5,566*	*Not applicable*					
FR-030 Hidden Valley								
Applicant's Proposed Action	0	11,571	Not applicable					
Variation S6-A1	*0*	*10,021*	*Not applicable*					
Variation S6-A2	*0*	*8,389*	*Not applicable*					
Variation S6-B1	*Not applicable*							
Variation S6-B2	*Not applicable*							
MA-039 Treasure Valley								
Applicant's Proposed Action	16	7,792	B (17.0)	High	Low	B (15.5)	B (17.0)	16
Variation S6-A1	*0*	*6,301*	*B (17.0)*	*No change*	*Low*	*B (17.0)*	*B (17.0)*	*0*
Variation S6-A2	*0*	*6,301*	*B (17.0)*	*No change*	*Low*	*B (17.0)*	*B (17.0)*	*0*
Variation S6-B1	*Not applicable*							

Table 3-434. Scenic Quality Impacts by Visual Analysis Unit for Segment 6—Treasure Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
Variation S6-B2	*Not applicable*							
MA-060 Owyhee Tunnel								
Applicant's Proposed Action	0	117	B (11.5)	No change	Low	B (11.5)	B (11.5)	0
Variation S6-A1	*Not applicable*							
Variation S6-A2	*Not applicable*							
Variation S6-B1	*Not applicable*							
Variation S6-B2	*Not applicable*							
MA-074 Board Coral								
Applicant's Proposed Action	0	822	C (10.5)	No change	Low	C (10.5)	C (10.5)	0
Variation S6-A1	*Not applicable*							
Variation S6-A2	*Not applicable*							
Variation S6-B1	*Not applicable*							
Variation S6-B2	*Not applicable*							
MA-075 North Alkali								
Applicant's Proposed Action	548	19,802	C (8.5)	High	Moderate	C (7.0)	C (7.5)	20,350
Variation S6-A1	*0*	*14,029*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S6-A2	*0*	*14,000*	*C (8.5)*	*No change*	*Low*	*C (8.5)*	*C (8.5)*	*0*
Variation S6-B1	*Not applicable*							
Variation S6-B2	*Not applicable*							
MA-077 Antelope Springs								
Applicant's Proposed Action	2,145	7,579	C (10.5)	High	Moderate	C (9.0)	C (9.5)	9,724
Variation S6-A1	*1,944*	*7,779*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*9,723*
Variation S6-A2	*1,628*	*7,945*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*9,573*
Variation S6-B1	*Not applicable*							
Variation S6-B2	*Not applicable*							
MA-078 Succor Creek								
Applicant's Proposed Action	191	756	A (19.0)	High	Moderate	B (17.5)	B (18.0)	947
Variation S6-A1	*0*	*947*	*A (19.0)*	*No change*	*Moderate*	*A (19.0)*	*B (18.0)*	*947*
Variation S6-A2	*0*	*947*	*A (19.0)*	*No change*	*Moderate*	*A (19.0)*	*B (18.0)*	*947*
Variation S6-B1	*Not applicable*							
Variation S6-B2	*Not applicable*							

Table 3-434. Scenic Quality Impacts by Visual Analysis Unit for Segment 6—Treasure Valley

Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
OW-001 Owyhee Mountains								
Applicant's Proposed Action	7,516	19,807	C (10.5)	High	Moderate	C (9.0)	C (9.5)	27,323
Variation S6-A1	*4,375*	*19,373*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*23,748*
Variation S6-A2	*4,213*	*19,534*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*23,747*
Variation S6-B1	*3,583*	*21,411*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*24,994*
Variation S6-B2	*3,519*	*21,472*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*24,991*
OW-005 Squaw Creek								
Applicant's Proposed Action	373	1,515	C (10.5)	High	Moderate	C (9.0)	C (9.5)	1,888
Variation S6-A1	*Not applicable*							
Variation S6-A2	*Not applicable*							
Variation S6-B1	*373*	*1,515*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*1,888*
Variation S6-B2	*447*	*1,441*	*C (10.5)*	*High*	*Moderate*	*C (9.0)*	*C (9.5)*	*1,888*
OW-006 Willow Spring								
Applicant's Proposed Action	6,566	24,330	C (6.0)	High	Moderate	C (4.5)	C (5.0)	30,896
Variation S6-A1	*Not applicable*							
Variation S6-A2	*Not applicable*							
Variation S6-B1	*5,337*	*22,769*	*C (6.0)*	*High*	*Moderate*	*C (4.5)*	*C (5.0)*	*28,106*
Variation S6-B2	*5,180*	*22,926*	*C (6.0)*	*High*	*Moderate*	*C (4.5)*	*C (5.0)*	*28,106*
OW-007 Salmon Butte								
Applicant's Proposed Action	<1	3,398	A (19.5)	Low	Low	A (19.5)	A (19.5)	0
Variation S6-A1	*Not applicable*							
Variation S6-A2	*Not applicable*							
Variation S6-B1	*<1*	*3,398*	*A (19.5)*	*Low*	*Low*	*A (19.5)*	*A (19.5)*	*0*
Variation S6-B2	*74*	*3,460*	*A (19.5)*	*Moderate*	*Low*	*A (19.5)*	*A (19.5)*	*0*
OW-008 Reynolds Creek								
Applicant's Proposed Action	0	1,241	B (13.5)	No change	Low	B (13.5)	B (13.5)	0
Variation S6-A1	*Not applicable*							
Variation S6-A2	*Not applicable*							
Variation S6-B1	*0*	*1,187*	*B (13.5)*	*No change*	*Low*	*B (13.5)*	*B (13.5)*	*0*
Variation S6-B2	*0*	*1,187*	*B (13.5)*	*No change*	*Low*	*B (13.5)*	*B (13.5)*	*0*

Table 3-434. Scenic Quality Impacts by Visual Analysis Unit for Segment 6—Treasure Valley								
Alternative Route	Acres Visible		Existing Scenic Quality Class (Rating)	Residual Impact Level		Residual Scenic Quality Class (Rating)		Total Change in Scenic Quality Rating (in acres)
	Foreground	Middleground		Foreground	Middleground	Foreground	Middleground	
OW-019 Treasure Valley								
Applicant's Proposed Action	814	46,159	B (13.5)	High	Moderate	B (12.0)	B (12.5)	46,973
Variation S5-A1	*61*	*29,562*	*B (13.5)*	*High*	*Moderate*	*B (12.0)*	*B (12.5)*	*29,623*
Variation S5-A2	*337*	*30,493*	*B (13.5)*	*Moderate*	*Low*	*B (12.5)*	*B (13.5)*	*337*
Variation S5-B1	*282*	*32,152*	*B (13.5)*	*High*	*Moderate*	*B (12.0)*	*B (12.5)*	*32,434*
Variation S5-B2	*90*	*30,971*	*B (13.5)*	*Moderate*	*Low*	*B (12.5)*	*B (13.5)*	*90*
OW-020 Jump Creek								
Applicant's Proposed Action	23	4886	A (18.5)	Moderate	Low	B (17.5)	A (18.5)	23
Variation S6-A1	*0*	*511*	*A (18.5)*	*No change*	*Low*	*A (18.5)*	*A (18.5)*	*0*
Variation S6-A2	*0*	*511*	*A (18.5)*	*No change*	*Low*	*A (18.5)*	*A (18.5)*	*0*
Variation S6-B1	*23*	*488*	*A (18.5)*	*Moderate*	*Low*	*B (17.5)*	*A (18.5)*	*23*
Variation S6-B2	*142*	*369*	*A (18.5)*	*Moderate*	*Low*	*B (17.5)*	*A (18.5)*	*142*

Table 3-435. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 6—Treasure Valley				
Alternative Route	Residual Impact Level	Visual Resource Management Classes Crossed and Visible	Conformance with Visual Resource Management Objectives (Yes/No)	Visible Miles not in Conformance with Resource Management Objectives
Stationary Sensitive Viewing Platforms				
8-75 Antelope Creek Wilderness Characteristic Area				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S6-A1	*Low*	*IV*	*Yes*	*0.0*
10-12 Snake River Access - Map Rock Road				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S6-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S6-B2	*Low*	*IV*	*Yes*	*0.0*
10-17 Snake River Overlook – Pump Road				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S6-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S6-B2	*Low*	*IV*	*Yes*	*0.0*

Table 3-435. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 6—Treasure Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
10-19 Map Rock Campground				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S6-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S6-B2	*Low*	*IV*	*Yes*	*0.0*
12-4 Givens Hot Springs Campground				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S6-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S6-B2	*Low*	*IV*	*Yes*	*0.0*
12-5 Hemingway Butte Trailhead Off-Highway Vehicle Recreation Site				
Applicant's Proposed Action	Low	IV	Yes	0.0
12-8 Jump Creek Canyon Area of Critical Environmental Concern				
Applicant's Proposed Action	Moderate	III	Yes	0.0
	Moderate	IV	Yes	0.0
Variation S6-A1	*Moderate*	*III*	*Yes*	*0.0*
Variation S6-A2	*Moderate*	*III*	*Yes*	*0.0*
	Moderate	*IV*	*Yes*	*0.0*
Variation S6-B1	*Moderate*	*III*	*Yes*	*0.0*
	Moderate	*IV*	*Yes*	*0.0*
Variation S6-B2	*Moderate*	*III*	*Yes*	*0.0*
12-13 Residential Area South of Wilson - China Ditch Road				
Applicant's Proposed Action	Low	IV	Yes	0.0
Variation S6-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S6-B2	*Low*	*IV*	*Yes*	*0.0*
12-17 Squaw Creek Canyon				
Applicant's Proposed Action	Moderate	III	Yes	0.0
	Moderate	IV	Yes	0.0
Variation S6-B1	*Moderate*	*III*	*Yes*	*0.0*
	Moderate	*IV*	*Yes*	*0.0*
Variation S6-B2	*Low*	*IV*	*Yes*	*0.0*
12-18 Squaw Creek Research Natural Area – North				
Applicant's Proposed Action	Low	III	Yes	0.0
	Low	IV	Yes	0.0
Variation S6-B1	*Low*	*III*	*Yes*	*0.0*
	Low	*IV*	*Yes*	*0.0*
Variation S6-B2	*Moderate*	*III*	*Yes*	*0.0*

Table 3-435. Impacts on Sensitive Viewing Platforms and Conformance with Bureau of Land Management Visual Resource Management Objectives for Segment 6—Treasure Valley				
Alternative Route	**Residual Impact Level**	**Visual Resource Management Classes Crossed and Visible**	**Conformance with Visual Resource Management Objectives (Yes/No)**	**Visible Miles not in Conformance with Resource Management Objectives**
12-21 Wilson Creek Trailhead				
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S6-B1	*Moderate*	*IV*	*Yes*	*0.0*
Variation S6-B2	*Moderate*	*IV*	*Yes*	*0.0*
12-22 Wilson Creek Wayside				
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S6-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S6-B2	*Low*	*IV*	*Yes*	*0.0*
12-23 Southern Terminus – Wilson Creek Road				
Applicant's Proposed Action	Moderate	IV	Yes	0.0
Variation S6-B1	*Low*	*IV*	*Yes*	*0.0*
Variation S6-B2	*Low*	*IV*	*Yes*	*0.0*
12-27 Residence on Poison Creek Road				
Applicant's Proposed Action	Low	III	Yes	0.0
	Low	IV	Yes	0.0
Variation S6-A1	*Low*	*III*	*Yes*	*0.0*
	Low	*IV*	*Yes*	*0.0*
Variation S6-A2	*Low*	*III*	*Yes*	*0.0*
	Low	*IV*	*Yes*	*0.0*
Variation S6-B1	*Low*	*III*	*Yes*	*0.0*
	Low	*IV*	*Yes*	*0.0*
Variation S6-B2	*Moderate*	*III*	*Yes*	*0.0*
12-28 Residence on Jump Creek Road				
Applicant's Proposed Action	Moderate	III	Yes	0.0
	Moderate	IV	Yes	0.0
Variation S6-A1	*Moderate*	*III*	*Yes*	*0.0*
	Moderate	*IV*	*Yes*	*0.0*
Variation S6-A2	*Moderate*	*III*	*Yes*	*0.0*
	Moderate	*IV*	*Yes*	*0.0*
Variation S6-B1	*Moderate*	*III*	*Yes*	*0.0*
	Moderate	*IV*	*Yes*	*0.0*
Variation S6-B2	*Moderate*	*III*	*Yes*	*0.0*

Applicant's Proposed Action Alternative

Effects on Landscape Character and Scenic Quality

Extending generally to the southwest, this alternative crosses rolling mountains with rough rock outcroppings to irregular foothills with adjacent areas, including flatter agricultural lands in Treasure Valley. Of the thirteen VAUs with visible within 5 miles of this alternative (Table 3-434), four have a

Class A scenic quality rating, four have a B scenic quality rating, and the rest have a C scenic quality rating. A Class A VAU, MA-078 Succor Creek, would be highly affected and OW-020 Jump Creek, also a Class A landscape, would be moderately affected by the B2H Project. Additionally, two of the four Class B VAUs (MA-039 Treasure Valley and OW-019 Treasure Valley) would experience high residual impacts due to partial skylining of the proposed transmission line structures. From areas in which the B2H Project would be visible, these VAUs also would experience decreases to the scenic quality rating scores. The decreases in scores would lower the scenic quality rating of VAUs MA-078 Succor Creek and OW-020 Jump Creek from Class A to Class B.

Variation S6-A1

This route variation follows the same alignment as the Applicant's Proposed Action Alternative from Link 6-10 to 6-20, through rolling mountains with rough rock outcroppings to irregular foothills that are generally associated with a Class C scenic quality. This variation would lower the existing scenic quality scores in adjacent Class B VAUs, due to high impacts on a Class B VAU (OW-019 Treasure Valley) and moderate impacts on VAU MA-078 Succor Creek, resulting in a decrease in the scenic quality rating from Class A to Class B within the middleground.

Variation S6-A2

This route variation parallels the Applicant's Proposed Action Alternative from Link 6-5 to 6-15, through rolling mountains with rough rock outcroppings to irregular foothills that are generally associated with a Class C scenic quality. This variation would lower the existing scenic quality scores in adjacent Class B VAUs, including moderate impacts on a Class B VAU (OW-019 Treasure Valley) in addition to moderately affecting and reducing the scenic quality rating in MA-078 Succor Creek from Class A to Class B within the middleground.

Variation S6-B1

This route variation follows the same alignment as the Applicant's Proposed Action Alternative through Link 6-25, through rolling mountains with rough rock outcroppings to irregular foothills that are generally associated with a Class C scenic quality. This variation would lower the existing scenic quality scores in adjacent Class B VAUs, including high impacts on a Class B VAU (OW-019 Treasure Valley). Additionally, the B2H Project would moderately affect the Class A VAU OW-020 Jump Creek, since the B2H Project located closer to the VAU than the existing 500-kV transmission line, and lower its rating to Class B within the foreground distance zone.

Variation S6-B2

This route variation would parallel the Applicant's Proposed Action Alternative, through rolling mountains with rough rock outcroppings to irregular foothills that are generally associated with a Class C scenic quality. Two Class A VAUs would be moderately affected by the B2H Project (OW-007 Salmon Butte and OW-020 Jump Creek) in addition to moderate impacts on a Class B VAU (OW-019 Treasure Valley). This alternative would lower the existing scenic quality scores in adjacent Class A and B VAUs, including reducing OW-020 Jump Creek from Class A to Class B within the foreground distance zone.

Effects on Views

Approximately 2.3 miles of high impacts and 11.3 miles of moderate impacts on views associated with residents, recreation, and travel routes would be associated with the Applicant's Proposed Action Alternative.

Effects on Residential Views

Moderate impact on residential viewers would occur on unobstructed panoramic views of the B2H Project from residential Sensitive Viewing Platform 12-28 (Residences on Jump Creek Road) and residences on Poison Creek Road, located approximately 0.2 mile away from the route, in context with the existing 500-kV transmission line located 0.5 mile away.

Variation S6-A1

Similar to the Applicant's Proposed Action Alternative, moderate impacts would occur on views from residences within 0.5 mile of the B2H Project on Poison Creek Road.

Variation S6-A2

Similar to the Applicant's Proposed Action Alternative, moderate impacts would occur on views from residences within 0.5 mile of the B2H Project on Poison Creek Road.

Variation S6-B1

Similar to Applicant's Proposed Action Alternative, moderate impacts would occur on views from residential Sensitive Viewing Platform 12-28 (Residences on Jump Creek Road) as the existing transmission line would be viewed in context with the B2H Project.

Variation S6-B2

Similar to Applicant's Proposed Action Alternative, moderate impacts would occur on views from residential Sensitive Viewing Platform 12-28 (Residences on Jump Creek Road).

Effects on Recreational Views

Views from Sensitive Viewing Platform 12-17 (Squaw Creek Canyon) would be moderately affected by the B2H Project as views include an existing 500-kV transmission line, which would be codominant in the viewshed, and views of the B2H Project would be mostly backdropped and partially screened by topography. Moderate impacts on views from Sensitive Viewing Platform 12-23 (Southern Terminus – Wilson Creek Road) would occur from less than 0.5 mile away since an existing 230-kV transmission line is located closer to the Sensitive Viewing Platform and the Hemingway Substation and associated 500-kV transmission lines also are visible in the viewshed. The views from Sensitive Viewing Platforms 12-21 (Wilson Creek Trailhead) and 12-22 (Wilson Creek Wayside) also would be moderately affected by the B2H Project as viewed in context with the existing 500-kV transmission line.

Variations S6-A1 and S6-A2

Impacts on recreation Sensitive Viewing Platforms on this route variation would be low in magnitude.

Variation S6-B1

As this route follows the same alignment as the Applicant's Proposed Action Alternative, it would have the same impacts on Sensitive Viewing Platform 12-17 (Squaw Creek Canyon) and Sensitive Viewing Platform 12-21 (Wilson Creek Trailhead)

Variation S6-B2

Impacts on Sensitive Viewing Platform 12-21 (Wilson Creek Trailhead) would be similar to the Applicant's Proposed Action Alternative.

Effects on Linear Viewing Platforms

No linear viewing platforms were identified in Segment 6.

Conformance with Management Objectives

No USFS-administered lands are adjacent to Segment 6. The B2H Project would meet the objectives associated with BLM VRM Class III and IV lands crossed.

Variations S6-A1, S6-A2, S6-B1, and S6-B2

The B2H Project would meet the objectives associated with BLM VRM Class III and IV lands crossed.

Conclusions

Segment 6 analyzed only one alternative route, the Applicant’s Proposed Action Alternative, with two variations (Variations S6-A2 and S6-B2). Impacts associated with the Applicant’s Proposed Action Alternative and variations in Segment 6 vary based on the types of effects being considered (e.g. landscape character and scenic quality, types of viewers, and conformance with management objectives). Variation S6-A2 is colocated more closely with an existing 500-kV transmission line and thus, would result in fewer impacts than Variation S6-A1 in the northern portion of Segment 6. In the southern portion of the segment, Variation S6-B1 is colocated more closely with an existing 500-kV transmission line and thus, would result in less impact than Variation S6-B2..

Because all of routes considered in Segment 6 are colocated to some extent with the existing 500-kV transmission line, there would be no significant difference in impacts on views associated with the variations in Segment 6.

The Applicant’s Proposed Action Alternative and the variations in Segment 6 would conform with visual management objectives.

This page intentionally left blank.