3.15 Special Designation Areas

SDAs are units of land managed by federal or state agencies for the protection and enhancement of specific resource values. SDAs may be Congressionally or agency-designated. Congressionally designated SDAs within the Project analysis area include NWRs, national monuments, WAs, WSAs, WSRs, NCAs, NHTs, and other similar management areas. Agency-designated SDAs include BLM ACECs and USFS IRAs and unroaded/undeveloped areas (URUD). Recreation areas and wildlife management areas identified in this section as designated land use areas are described in more detail in Section 3.13, Recreation Resources. MOAs are described Section 3.16, Transportation.

3.15.1 Data Sources

Information regarding special designations within the analysis area was obtained from a review of existing published sources and agency land use management plans. SDAs (including USFS IRAs) were identified using GIS data from the USFS, the BLM, and the states of Wyoming, Colorado, Utah, and Nevada. Current land use information was obtained from available GIS data, topographic maps, and internet-based tools including GoogleEarth™. A list of the land use plans used in the development of this section is presented in **Tables 1-3** and **1-4**. Vegetation species are presented in a manner consistent with the NRCS Plants Database (NRCS 2010), unless otherwise specified.

3.15.2 Analysis Area

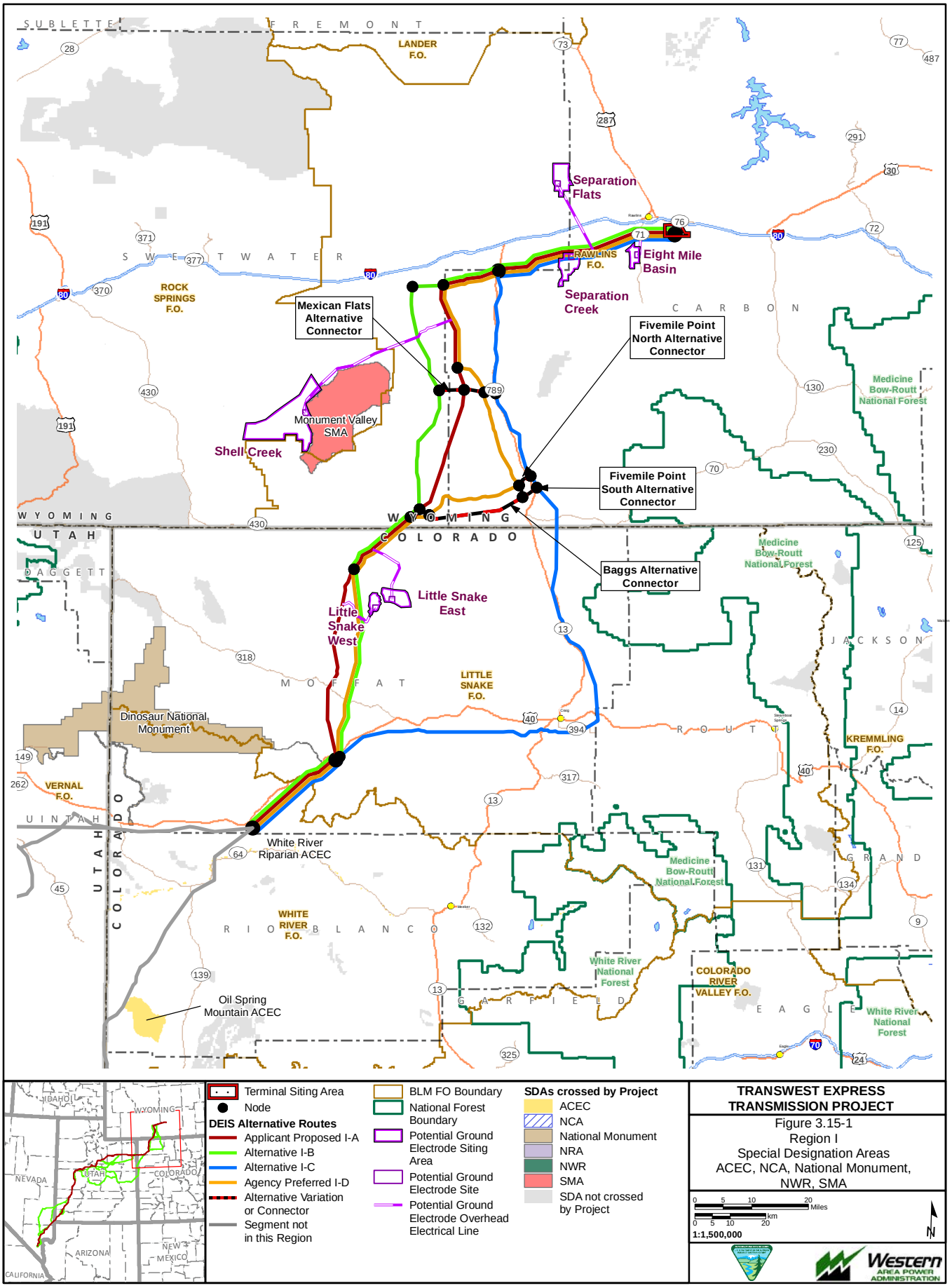
The analysis area for special designations comprises all SDAs with portions of land within the 2-mile transmission line corridors and terminal areas for the various alternatives. The 2-mile transmission line corridor was selected because it encompasses all surface disturbances from construction of the transmission line construction as well as development of access roads and other construction support facilities. In addition, noise and other disturbances from transmission line construction generally would dissipate to background levels well within the 2-mile transmission line corridor. For purposes of clarity, SDAs have been broken out into sets of four maps each; each set containing a separate figure for each region. **Figures 3.15-1** through **3.15-4** depict the NCA, national monument, NRA, NWRs, research natural areas, and ACECs. **Figures 3.15-5** through **3.15-8** identify the wilderness, proposed wilderness, WSA, and WSRs. NHTs, IRAs, and URUD areas are depicted on separate sets if maps and are included with the appropriate discussions in Section 3.15.3. SDAs that are near, but not within, the 2-mile transmission line corridor are depicted on the maps but are shown in grey (i.e., a “special management area” per the map legend) and are unlabeled.

3.15.3 Baseline Description

3.15.3.1 National Wildlife Refuges

The National Wildlife Refuge System, managed by the USFWS, is a national system of public lands and waters set aside to conserve America's fish, wildlife, and plants. The analysis area includes portions of two of the four refuges comprising the Desert NWR complex in Region III (see **Figure 3.15-3**).

- Pahranagat NWR (5,380 acres): Established to provide habitat for migratory birds, especially waterfowl.
- Desert NWR (1.5 million acres): Established for the protection, enhancement, and maintenance of desert bighorn sheep.



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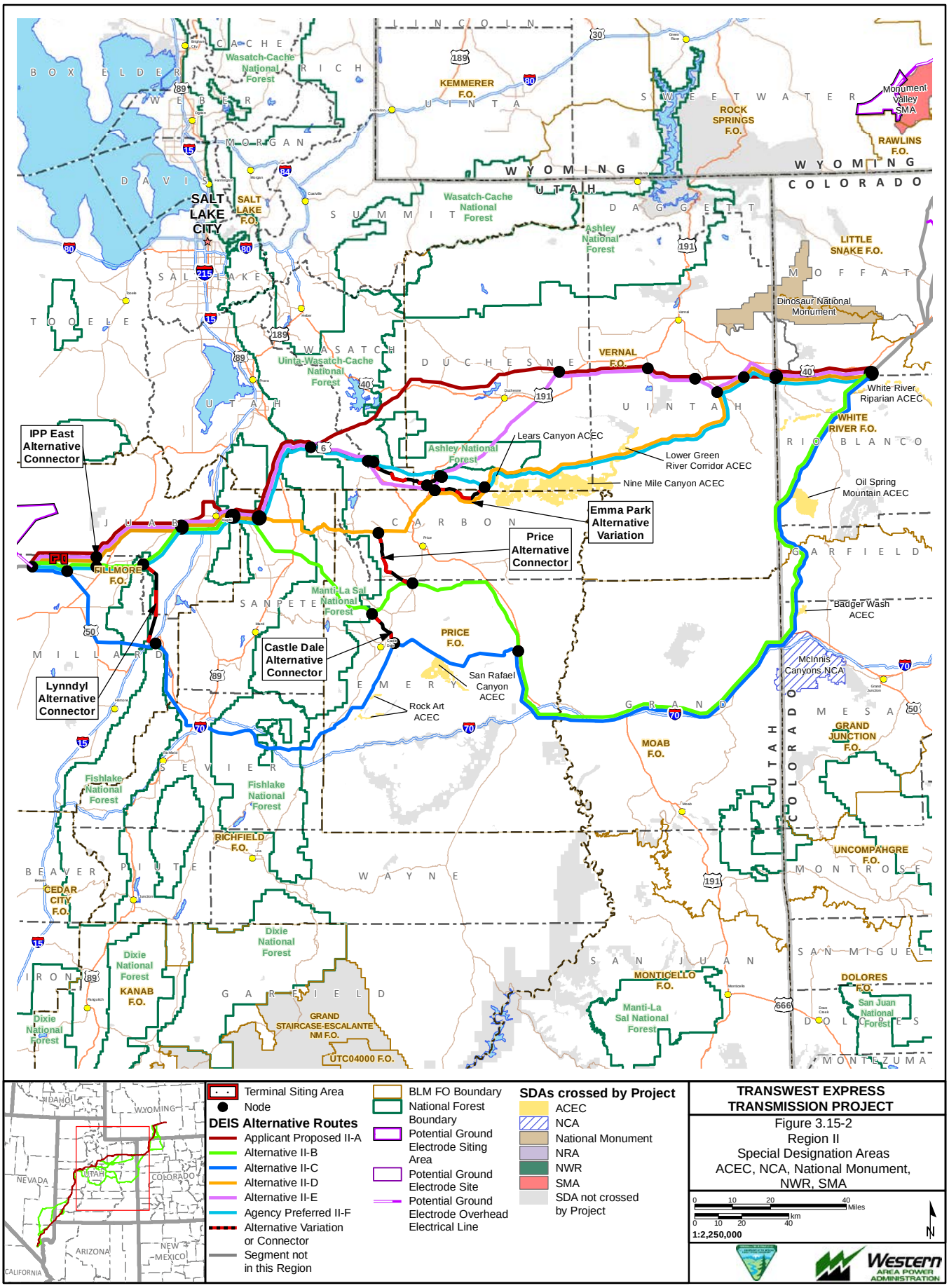

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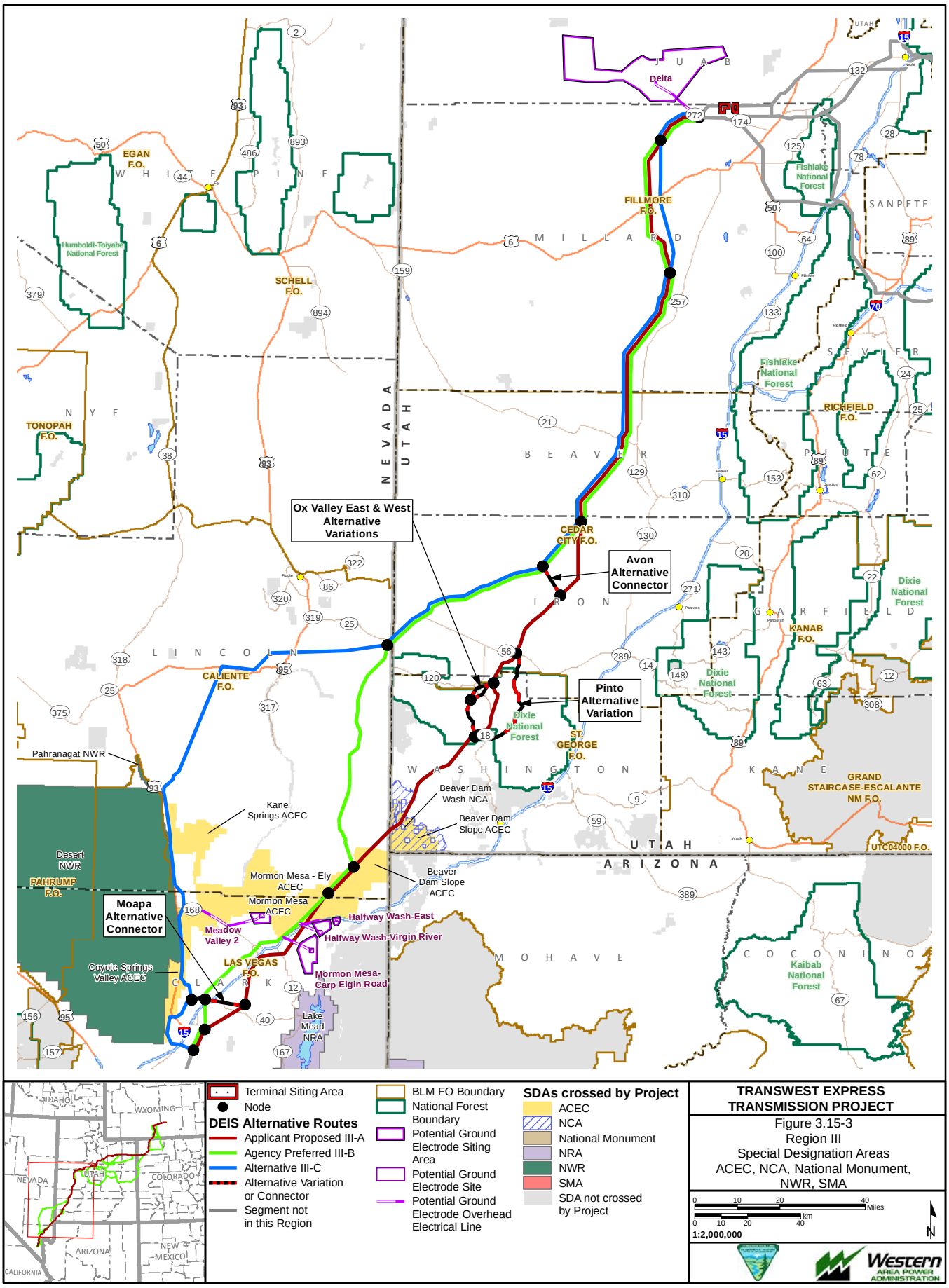

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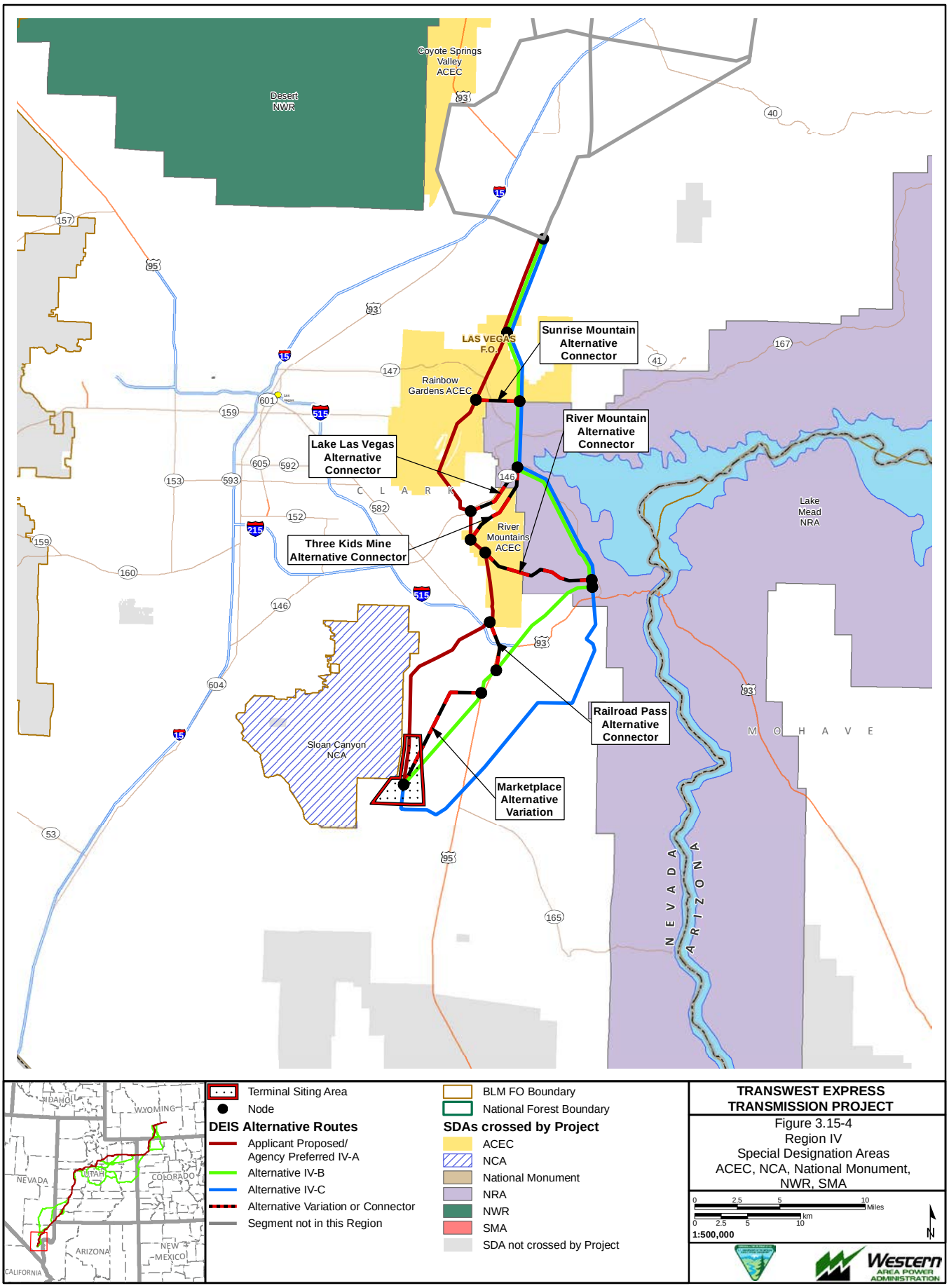

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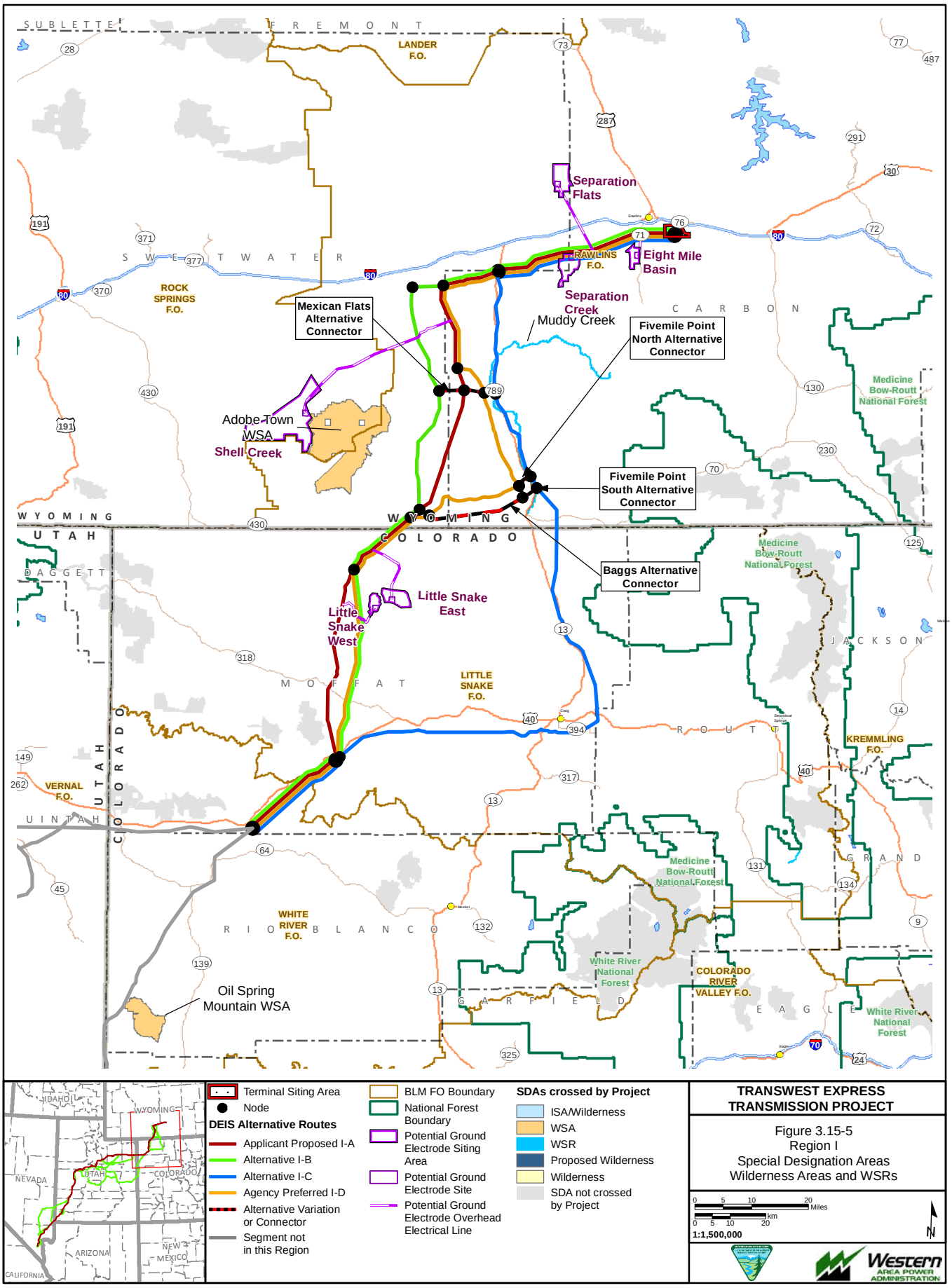

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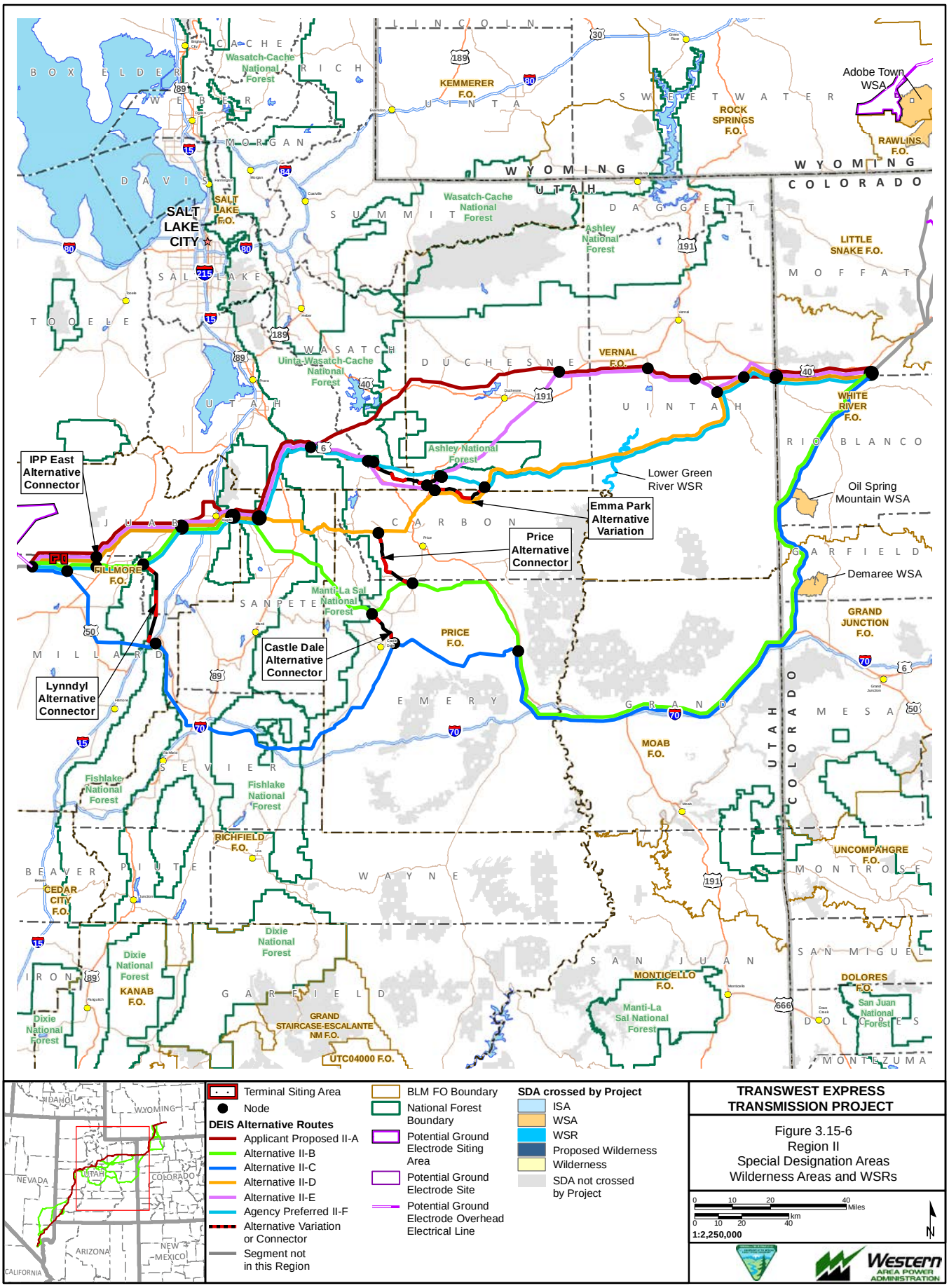

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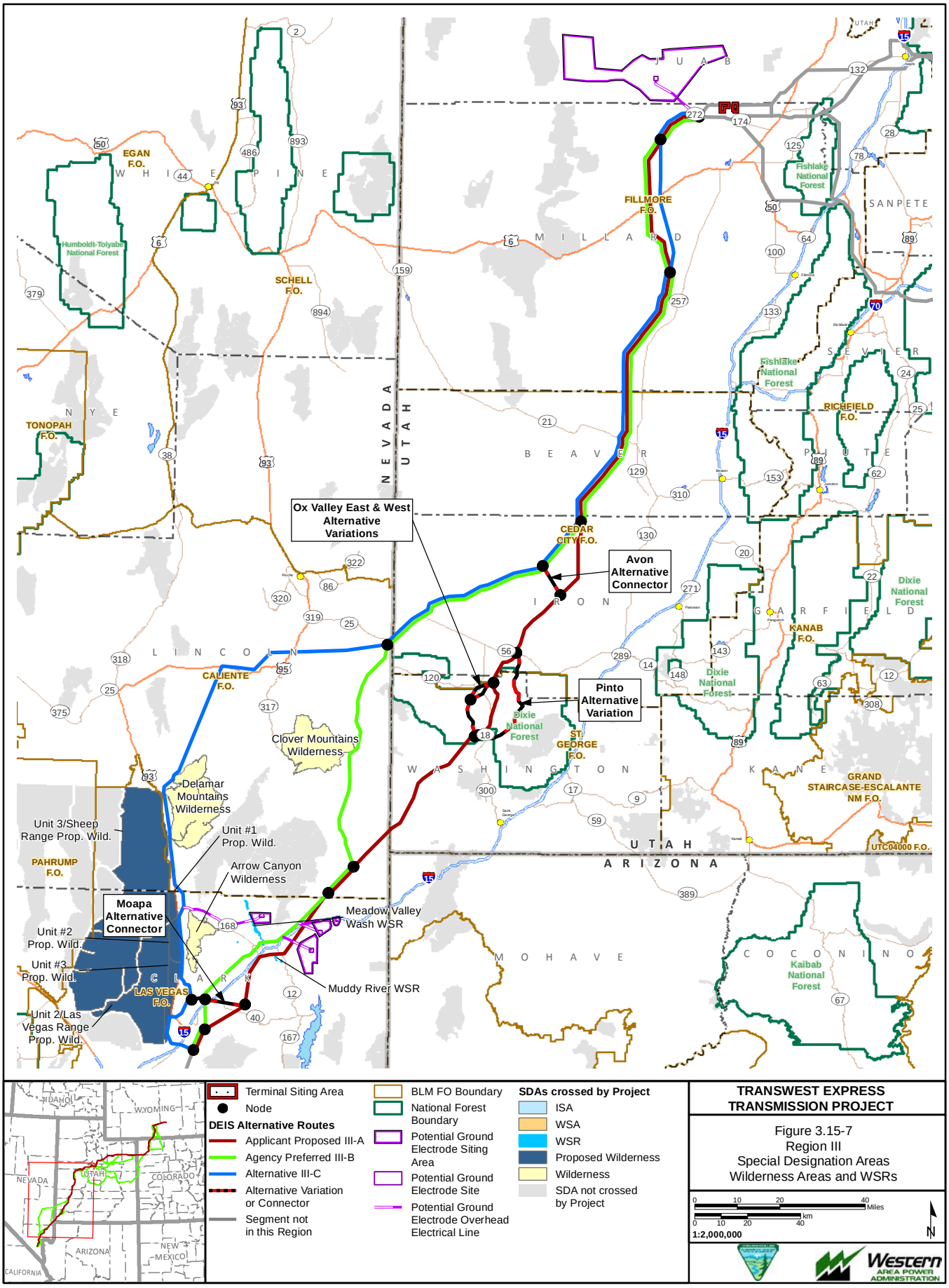

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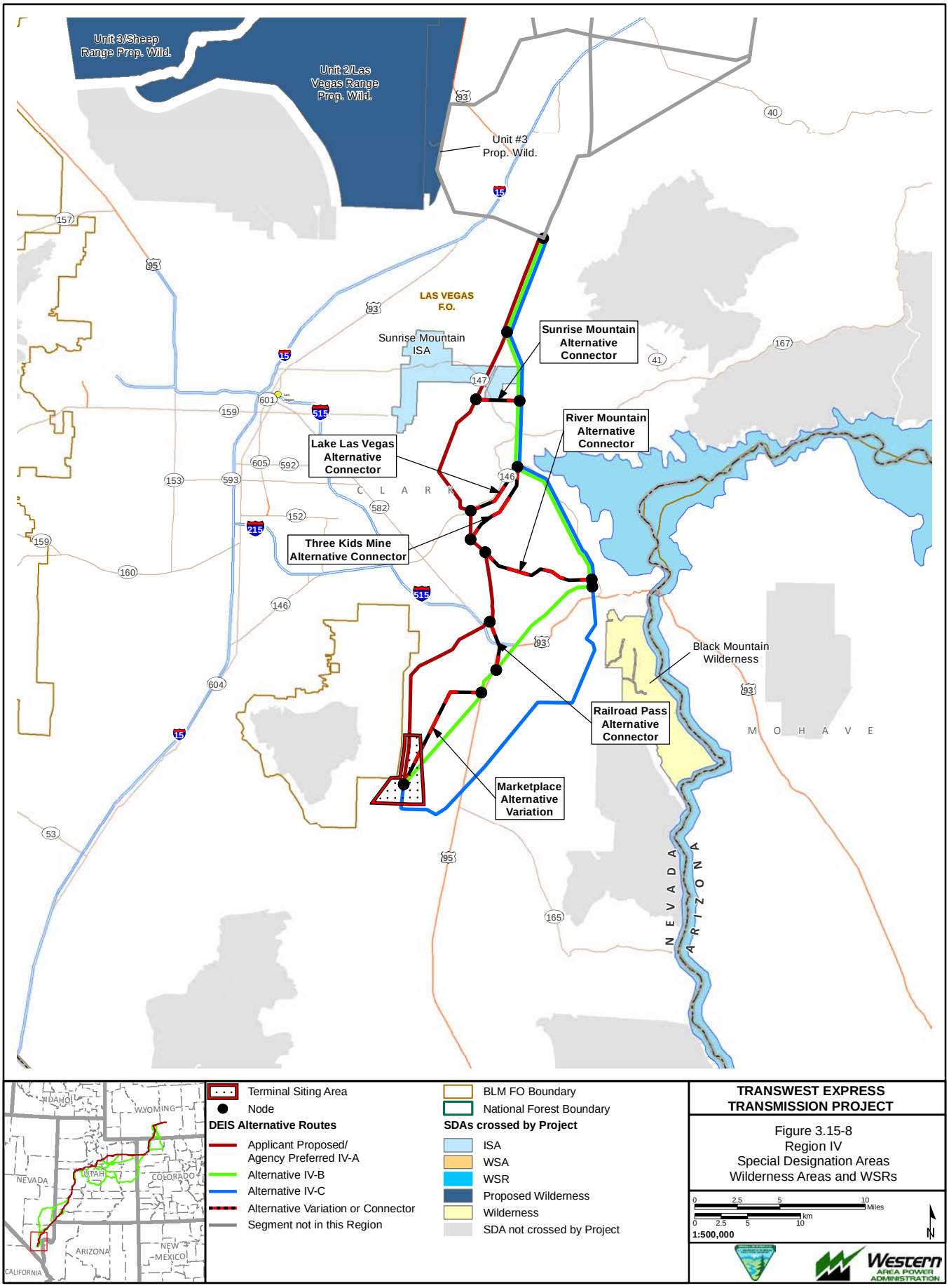
Unit 3/Sheep Range Prop. Wild.
Unit 2/Las Vegas Range Prop. Wild.
Unit #3 Prop. Wild.
LAS VEGAS F.O.
Sunrise Mountain ISA
Sunrise Mountain Alternative Connector
River Mountain Alternative Connector
Lake Las Vegas Alternative Connector
Three Kids Mine Alternative Connector
Railroad Pass Alternative Connector
Marketplace Alternative Variation
Black Mountain Wilderness
C L A R K
M O H A V E
N E V A D A
A R I Z O N A
Terminal Siting Area
Node
DEIS Alternative Routes
Applicant Proposed/ Agency Preferred IV-A
Alternative IV-B
Alternative IV-C
Alternative Variation or Connector
Segment not in this Region
BLM FO Boundary
National Forest Boundary
SDAs crossed by Project
ISA
WSA
WSR
Proposed Wilderness
Wilderness
SDA not crossed by Project
TRANSWEST EXPRESS TRANSMISSION PROJECT
Figure 3.15-8
Region IV
Special Designation Areas
Wilderness Areas and WSRs
Miles
km
1:500,000
N
Western AREA POWER ADMINISTRATION
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As part of the Lincoln County Conservation, Recreation, and Development Act of 2004 (PL 108–424), administrative jurisdiction over approximately 8,382 acres of land along the eastern boundary of Desert NWR and west of U.S. Highway 93 was transferred from the USFWS to the BLM for use as a utility corridor.

3.15.3.2 National Monuments

National Monuments, established through the Antiquities Act of 1906, may be presidentially or congressionally designated to protect "objects of historic or scientific interest." The Dinosaur National Monument is the only national monument to occur within the analysis area. It is managed by the NPS.

Per 2006 NPS Park Management Policy, per the Organic Act and the General Authorities Act, actions would not be allowed that would impair integrity of resources or values whose conservation is necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or identified in the park's general management plan or other relevant NPS planning documents as being of significance. Before approving a proposed action that could lead to an impairment of park resources and values, an NPS decision-maker must consider the impacts of the proposed action and determine, in writing, that the activity will not lead to an impairment of park resources and values. Actions cannot be approved that individually or cumulatively would:

- Be inconsistent with a park's purposes or values;
- Affect the attainment of a park's desired future conditions for natural and cultural resources as identified through the park's planning process;
- Create an unsafe or unhealthful environment for visitors or employees, or diminish opportunities for current or future generations to enjoy, learn about, or be inspired by park resources or values;
- Unreasonably interfere with park programs or activities, or an appropriate use, or the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park; or NPS concessioner or contractor operations or services.

Utility ROWs over lands administered by the Park Service are governed by statutory authorities in 16 USC 5 (electrical power transmission and distribution, radio and TV, and other forms of communication facilities) and 16 USC 79 (electrical power, telephone, and water conduits). If not incompatible with the public interest, rights-of-way issued under 16 USC 5 or 79 are discretionary and conditional upon a finding by the Service that the proposed use will not cause unacceptable impacts on park resources, values, or purposes. ROWs may be issued only pursuant to specific statutory authority, and generally only if there is no practicable alternative to such use of NPS lands.

The Dinosaur National Monument includes more than 200,000 acres of river canyons, mountains, and basins and contains world renowned geological and paleontological resources, important prehistoric petroglyphs and pictographs, and historic-era artifacts. This area also provides habitat for more than 1,000 native species of plants and animals and provides recreational access to the Yampa River (see Section 3.13, Recreation Resources).

The portions of Dinosaur National Monument within Region I are located in the far west portion of the National Monument and include the National Monument entrance from Highway 40 north of Elk Springs, Colorado, and portions of the approximately 12-mile Deerlodge access road closest to Highway 40 (see **Figure 3.15-1**). The ROW for the portion of the Deerlodge road that is within the analysis area is approximately 200 feet wide, and is surrounded by private land. There is an 800-foot scenic easement (400 feet on either side of the road) on portions of Deerlodge Road closer to national monument recreation areas; however, the NPS has not yet purchased the scenic easement within the analysis area.

The average daily traffic using Deerlodge Road is less than 350 vehicles. Most traffic along Deerlodge Road occurs from May through September as rafters and kayakers take advantage of higher flows in the Yampa River from winter snow melt. Deerlodge Road is plowed in the winter, but may be closed during the winter months due to snow and snowdrifts (NPS 2013).

The NPS is currently preparing an EA for a proposed road improvement project, which includes resurfacing, restoring, reconstructing, bank stabilization measures, and installing new drainage measures along Deerlodge Road. The proposed project may be constructed in two phases, depending on available funds. Phase I (proposed for 2013) would include bank stabilization along the Yampa River near milepost 9.5, and Phase II (proposed for 2016) would include the pavement rehabilitation and other parking area modifications (NPS 2013). The portion of Deerlodge road within the analysis area would be upgraded during Phase II.

The portions of the Dinosaur National Monument within Region II comprise a very small portion of national monument lands west of the Harper's Corner entrance road on Highway 40 near Dinosaur, Utah.

3.15.3.3 Wilderness Areas and Wilderness Study Areas

The Wilderness Act of 1964 established the National Wilderness Preservation System and a process for federal agencies to recommend wilderness areas to Congress. Wilderness, as defined by the Wilderness Act, is untrammeled (free from man's control), undeveloped, and natural, offering outstanding opportunities for solitude or primitive and unconfined recreation. Wilderness Areas have been designated within existing national parks, NWRs, national Forests, and BLM-managed public lands to be managed to preserve wilderness characteristics. Agencies typically recommend areas for wilderness designation; however, the public at large can develop its own wilderness proposal for introduction by any member of Congress.

With the passage of FLPMA in 1976, Congress directed the BLM to inventory public land for wilderness characteristics including the appearance of naturalness; outstanding opportunities for solitude or primitive and unconfined recreation; special features and values (such as ecological, geological, educational, historical, scientific, and scenic values), and manageability (adequate size; i.e., at least 5,000 acres of public lands or of sufficient size to make preservation practicable). WSAs contain wilderness characteristics and are managed to preserve those values until Congress either designates them as wilderness or releases them for other uses. ISAs are areas formally identified as "natural" or "primitive" prior to the passage of the FLPMA. These are lands identified by the wilderness review required by Section 603 of the FLPMA and for all intents and purposes are managed as WSAs until Congress either designates them as wilderness or releases them for other purposes. Four wilderness areas, three WSAs, and one ISA are located on BLM land within the analysis area. Additional information on WSAs and ISAs is presented in Section 3.12, Visual Resources.

The USFWS conducts wilderness reviews to identify and recommend Refuge System lands and waters for congressional designation. Five portions within the Desert NWR complex have been proposed for wilderness status via the National Wilderness Preservation System. See **Table 3.15-1** and **Figures 3.15-5** through **3.15-8**.

Table 3.15-1 Designated Wilderness, Wilderness Study Areas, and Proposed Wilderness within Special Designations Analysis Area

Region	State	Management Entity	Name	Area Designation	Acreage
I	Wyoming	Rock Springs FO	Adobe Town	BLM WSA	87,051
II	Colorado	Grand Junction FO	Demaree[1]	BLM WSA	21,050
	Colorado	White River FO	Oil Spring Mountain[1]	BLM WSA	18,260

Table 3.15-1 Designated Wilderness, Wilderness Study Areas, and Proposed Wilderness within Special Designations Analysis Area

Region	State	Management Entity	Name	Area Designation	Acreage
III	Nevada	Caliente FO	Delamar Mountains	Designated Wilderness	111,328
	Nevada	Caliente FO	Clover Mountain	Designated Wilderness	85,748
	Nevada	USFWS	Unit #1	Proposed Wilderness	7,663
	Nevada	USFWS	Unit #2	Proposed Wilderness	17,404
	Nevada	USFWS	Unit #3	Proposed Wilderness	21,989
	Nevada	USFWS	Unit 2/Las Vegas Range	Proposed Wilderness	127,596
	Nevada	USFWS	Unit 3/Sheep Range	Proposed Wilderness	375,458
	Nevada	Las Vegas FO	Arrow Canyon	Designated Wilderness	27,585
IV	Nevada	Las Vegas FO	Black Mountain	Designated Wilderness	17,220
	Nevada	Las Vegas FO	Sunrise Mountain[1]	BLM ISA (ISA; NV-050-0420)	10,240

[1] Managing entity does not recommend area for future wilderness designation.

Source: BLM 2008a,b; 1997a,b; 1987.

3.15.3.4 Wild and Scenic Rivers

WSRs were established by the Wild and Scenic Rivers Act of 1968 to protect and preserve designated rivers throughout the nation in their free-flowing condition and to protect and preserve their immediate environments. To meet the eligibility criteria, a waterway must be “free-flowing” and, along with its adjacent land area, must possess at least one “outstandingly remarkable value.” The Act provides three levels of protection: wild, scenic, and recreational. “Wild” rivers are free of dams, generally inaccessible except by trail, and represent vestiges of primitive America. “Scenic” rivers are free of dams, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads. “Recreational” rivers are readily accessible by road or railroad, may have some development along their shorelines, and may have been dammed in the past.

Within the Rawlins FO (Region I, see **Figure 3.15-5**), the Muddy Creek was determined eligible for WSR “recreational” status, based on hydrological factors such that the evaluated portions of the creek serve as a “textbook” example of stream rehabilitation for land managers. However, the Rawlins FO ultimately determined that the creek segments did not meet suitability factors and would be given no further consideration for inclusion within the National Wild and Scenic Rivers System (NWSRS) (BLM 2002). Accordingly, this stream has not been carried forward for analysis in this EIS.

Portions of the Lower Green River (Region II, BLM Vernal FO) within the analysis area have been found to be eligible and recommended as suitable for inclusion into NWSRS and are shown on **Figure 3.15-6**. The Lower Green River segment (30 miles) extends from the public land boundary south of Ouray, Colorado, to the Carbon County line in Utah. The Lower Green segment continues through the Price FO to just north of Green River, Utah, for a total of 115 miles. There is a tentative classification of "Scenic" for both river segments.

The Lower Green River segment is largely protected from mineral development disturbance by either being closed to mineral leasing or by no surface occupancy (NSO) stipulations. NSO stipulations within the Vernal FO correlate with ROW avoidance areas. The river segments are in a limited or closed OHV category, with most of the segments limited to designated routes. The Lower Green River is protected with both Class I

and II VRM categories (see Section 3.12, Visual Resources, for a description of visual management categories). The Price FO segment of the Lower Green River is outside of the analysis area.

Within the Las Vegas FO (Region III, see **Figure 3.15-7**), there are two rivers that have been designated as eligible for the NWSRS and are protected under the Wild and Scenic Rivers Act until a suitability analysis has been completed. The suitability analysis will be completed as part of the RMP amendment process, which currently is underway. There is a tentative classification of "recreational" for an 11-mile section of the Muddy River and a tentative classification of "scenic" for an 11-mile Meadow Valley Wash riparian area. Both rivers have outstanding remarkable wildlife, cultural, and fish features. Suitability of these river segments has not yet been determined.

Table 3.15-2 provides an overview of classification criteria for “scenic” and “recreational” designations. Per BLM Manual 8351, which provides direction for identification, evaluation, and management of WSRs, new transmission lines, natural gas lines, etc., are discouraged unless specifically authorized by other plans, orders, or laws. Where no reasonable alternate location exists, additional or new facilities should be restricted to existing ROWs. Where new ROWs are unavoidable, locations and construction techniques shall be selected to minimize adverse effects on wild, scenic, or recreational river area related values and fully evaluated during the site selection process. These requirements also apply to river segments that have been found to be eligible for consideration as components of the NWSRS through the RMP process, but for which suitability has not yet determined.

Table 3.15-2 Classification Criteria for WSR “Scenic” and “Recreational” Areas

Criteria	Scenic	Recreational
Accessibility	Accessible in places by road. Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous roads or railroads is acceptable.	Readily accessible by road or railroad. The existence of parallel roads or railroads on one or both banks as well as bridge crossings and other river access points is acceptable.
Shoreline Development	Largely primitive and undeveloped No substantial evidence of human activity. The presence of small communities or dispersed dwellings or farm structures is acceptable. The presence of grazing, hay production, or row crops is acceptable. Evidence of past or ongoing timber harvest is acceptable, provided the forest appears natural from the riverbank.	Some development. Substantial evidence of human activity. The presence of extensive residential development and a few commercial structures is acceptable. Lands may have been developed for the full range of agricultural and forestry uses. May show evidence of past and ongoing timber harvest.
Water Resource Development	Free of impoundment	Some existing impoundment or diversion. The existence of low dams, diversions, or other modifications of the waterway is acceptable, provided the waterway remains generally natural and riverine in appearance.

Table 3.15-2 Classification Criteria for WSR "Scenic" and "Recreational" Areas

Criteria	Scenic	Recreational
Water Quality	No criteria prescribed by the Wild and Scenic Rivers Act. The Federal Water Pollution Control Act Amendments of 1972 have made it a national goal that all WUS be made fishable and swimmable. Therefore, rivers will not be precluded from scenic or recreational classification because of poor water quality at the time of their study, provided a water quality improvement plan exists or is being developed in compliance with applicable Federal and State laws.	

Source: BLM 2008c.

3.15.3.5 National Conservation Areas

NCAs are designated by Congress to conserve, protect, enhance, and manage public lands for the benefit and enjoyment of present and future generations. **Table 3.15-3** identifies the three BLM NCAs within the analysis area, which include the McInnis Canyons NCA in Colorado (**Figure 3.15-2**), the Beaver Dam Wash NCA in Utah (**Figure 3.15-3**), and the Sloan Canyon NCA, in Nevada (**Figure 3.15-4**).

Table 3.15-3 BLM National Conservation Areas

Region	Name	Management Description
Region II	McInnis Canyons NCA (123,400 acres)	Managed for the core objective of multiple uses, allowing for as wide a range of activity as possible, while protecting the resources of the CCNCA for future use and enjoyment. Per the Colorado Canyons NCA RMP (BLM 2004), "ROW proposals will be reviewed and approved on a case-by-case basis and will be subject to constraints, sensitive resource areas, and issues identified in the Colorado Canyons NCA RMP and other applicable documents and policies." Utility line proposals, from the I-70 corridor to the Colorado River or in the upper Black Ridge road area, will be required to be located underground and along the edge of or within roadways, or within the railroad ROW. Additions or modifications to aboveground utilities will only be considered within the existing utility corridors where aboveground facilities presently exist. Underground utility proposals also will be considered in these existing corridors.
Region III	Beaver Dam Wash NCA (63,500 acres)	Managed to protect important biological, ecological, historical, and scenic resources as well as diverse recreational opportunities. The NCA also provides critical habitat for Mojave Desert tortoises, a federally threatened species. Three major utility corridors, excluded from the NCA, contain roads that access electrical and natural gas transmission lines and fiber-optic cable lines. Per the St. George RMP, new ROW and temporary use permits are strongly discouraged within the Beaver Dam Slope ACEC and shall only be authorized if no reasonable alternative exists and impacts to tortoises and their habitat can be mitigated. Surface disturbance (before restoration) resulting from all ROW in the ACECs shall not exceed 40 acres through the life of the project. Construction of unpaved roads could occur only if positive benefits to tortoise management would occur and would require concurrence from the USFWS. Paving would not be allowed. Speed limits exist within the ACEC. The BLM St. George Field Office is preparing a Management Plan to address recreation uses and facilities while protecting the special values of the NCA.
Region IV	Sloan Canyon NCA (48,000 acres)	Managed to conserve, protect, and enhance the cultural, archaeological, natural, wilderness, scientific, geological, historical, biological, wildlife, educational, and scenic resources of this area. Established in 2002, the conservation area encompasses approximately 48,000 acres. The area features significant archaeological sites, scenic vistas, important wildlife habitat, and opportunities for primitive recreation.

BLM 2004, 1999.

3.15.3.6 National/State Scenic Byways and Backways

National or state scenic byways and backways provide an opportunity for the public to experience landscapes with significant outstanding scenic, historic, cultural, natural, recreational, and archaeological qualities. Impacts to scenic byways and backways are discussed in Section 3.12, Visual Resources, and Section 3.13, Recreation.

3.15.3.7 Designated National Trails

Introduction

The National Trails System is a network of historic, scenic, and recreation trails created by the National Trails System Act of 1968 (as amended) to "promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open air, outdoor areas and historic resources of the Nation" [16 USC 1241].

- A *national scenic trail* is a congressionally designated trail that is a continuous and uninterrupted extended, long-distance trail so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant resources, qualities, values, and associated settings and the primary use or uses of the areas through which such trails may pass. NSTs may be located so as to represent desert, marsh, grassland, mountain, canyon, river, forest, and other areas, as well as landforms that exhibit significant characteristics of the physiographic regions of the Nation (BLM Manual 6280).
- A *national historic trail* is a congressionally designated trail that is an extended, long-distance trail, not necessarily managed as continuous, that follows as closely as possible and practicable the original trails or routes of travel of national historic significance. The purpose of a National Historic Trail is the identification and protection of the historic route and the historic remnants and artifacts for public use and enjoyment. A National Historic Trail is managed in a manner to protect the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass, including the primary use or uses of the trail (BLM Manual 6280).
- A *national recreation trail* is a trail designated by the Secretary of the Interior, or delegated officer, through a standardized process, including a recommendation and nomination by the BLM. National Recreation Trails provide a variety of compatible outdoor recreation uses in or reasonably accessible to urban areas or high-use areas. (BLM Manual 6280). National recreation trails are discussed in Section 3.13, Recreation.

Within the analysis area, there is one NST and one NHT:

- Old Spanish NHT (located within Region II and Region III)
- CDNST (located within Region I)

Additionally, the Overland and Cherokee trails are currently under a feasibility study to be amended to the California NHT. Both trails are located within Region I.

National Trail Management

NSTs and NHTs are formally administered by the NPS, BLM, or USFS; however, the land along the national trails is in both public and private ownership and may include tribal lands. In 2006, a memorandum of understanding (06-SU-11132424-196) was signed by the BLM, NPS, USFWS, USFS, USACE, and FHWA to encourage long-term interagency coordination under the authority of the National Trails System Act of 1968. Subsequent to this memorandum, the BLM has developed a series of National Trails System manuals (BLM Manuals 6250, 6280, and 8353) to provide administrative and management guidance. Once congressionally designated, administering agencies are required to develop a Comprehensive Management Plan (CMP) or trailwide Comprehensive Plan. BLM policy establishes that the CMP or trailwide

Comprehensive Plan is a strategic document through which the administration agency defines the nature and purpose(s) of the trail, selects the National Trail ROW, and provides general aspirational goals for the National Trail. If developed, the trailwide CMP (and other reference documents), is then used to provide information about national trails in the development of land use planning documents (e.g., BLM FO RMPs and USFS LRMPs). For the BLM, in cases where a trail is under study or has been recommended as suitable for designation and Congress has not yet acted to designate the trail, the appropriate federal agency manages the values, characteristics, and settings of the trail in accordance with FLPMA.

To date, the Old Spanish NHT does not have a trailwide Comprehensive Plan. A Comprehensive Plan was prepared for the Continental Divide NST in 1985 and amended in 2009.

Analysis Considerations for National Trails

Federal agencies must consider the effects of proposed actions on NSTs and NHTs under NEPA and the National Trails System Act of 1968 [16 U.S.C. 1246]. The law states that “other uses along the trail, which will not substantially interfere with the nature and purposes of the trail, may be permitted by the Secretary charged with the administration [management] of the trail. Reasonable efforts shall be made to provide sufficient access opportunities to such trails and, to the extent practicable, efforts shall be made to avoid activities incompatible with the purposes for which such trails were established.” In addition, Section 9 (a) [16USC1248] states that “The Secretary of the Interior or the Secretary of Agriculture as the case may be, may grant easements and rights-of-way upon, over, under, across, or along any component of the national trails system in accordance with the laws applicable to the national park system and the national forest system, respectively: Provided, That any conditions contained in such easements and rights-of-way shall be related to the policy and purposes of this Act.” Analysis considerations for Designated National Trails under NEPA and the National Trails System Act of 1968 [16 U.S.C. 1246], include:

- The extent to which the proposed action would affect the BLM’s ability to effectively manage the nature and purposes of the trail, trail resources, qualities, values, uses (including public access and enjoyment) and associated settings; and
- The extent to which a proposed action would require a major relocation of the National Trail Management Corridor in order to provide for the conservation and enjoyment of the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass, or the primary use or uses of the trail.

Additional Considerations for National Historic Trails

NHTs differ from "regular" trails, which generally can be described, inventoried, and managed as one linear route. The Federal Geographic Data Committee Federal Trail Data Standards describe NHTs as an informal "corridor," rather than a single line on a map. Each “NHT corridor” is comprised of the trail route (both congressionally designated as well as the route and sites where history actually occurred if different from the designated route), associated heritage sites, and recreation and/or interpretive trail/road/sites that people can use.

Per BLM Manual 6280, NHTs are to be managed “to recognize the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass, including the primary use or uses of the trail. Federal Protection Components associated with the National Historic Trail, including high potential historic sites, and high potential route segments, as well as auto tour routes are identified by the National Trail administering agency through the trailwide Comprehensive Plan.” The National Trails System Act of 1968 and other applicable legislation defines “high potential routes” as those offering visitors a high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of an historic route. “High potential historic sites” refers to those sites related to the route or sites in close proximity thereto, which provide opportunity to interpret the historic significance of the trail during the period of its major use. To meet the goals of the National Trails System Act for NHTs, federal agencies must identify and protect not only the

physical remnants of high potential route segments and high potential historic sites (16 USC 16 1251) associated with the route, but its nature and purposes as well.

Three primary assessment tools are used to characterize NHTs: Condition Category classification, VRI data, and historic integrity assessments.

The NHT Condition Categories are federal standard classifications designed to assess the comparative character of visible trail remnants observed at the time of mapping for all NHTs. NHT Condition Categories Encompass: 1) documentation of the historic location; and 2) presence (or lack) of visible trail remnants and/or artifacts that provide evidence of the historic route. There are six NHT Condition Categories:

- NHT I – Location verified, evident, and unaltered
- NHT II – Location verified and evident with minor alteration
- NHT III – Location verified with little remaining evidence
- NHT IV – Location verified and permanently altered
- NHT V – Location approximate or not verified
- NHT VI – Location verified with historic reconstruction

NHT Condition Categories are applicable to the heritage resource component of the NHT and not to the recreation or interpretive components, and do not reflect the character or integrity of the NHT setting or surrounding landscape.

The VRI process provides land managers with a means for determining visual values. VRI classes represent the relative value of the visual resources and provide the basis for considering visual values in the resource management planning process. In the BLM or USFS VRI process, public lands are divided into Scenic Quality Rating Units (SQRUs) and rated on apparent scenic quality, which is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. Class A: 19 or more points, B: 12-18 points, Class C: 11 or less points. Section 3.12, Visual Resources, provides more information regarding VRI. As discussed in Section 3.12, Visual Resources, the Project would result in no less than a minus four (-4) points in total. Thus, Class A could be reduced to Class B based on an existing SQRU score of 19 to 22, and Class B could be reduced to Class C if the existing SQRU were in the12 to 15 point range.

The NRHP defines historic integrity as “a property’s historic identity evidenced by the survival of physical characteristics from the property’s historic or pre-historic period. The seven qualities of integrity are location, setting, feeling, association, design, workmanship, and materials.” Historic Integrity is determined by the extent to which the general character of the historic period is evident and the degree to which incompatible features obscuring that character are present (and in some cases, whether they can be reversed) (AECOM 2012).

<u>National Trails within the Analysis Area</u>

Continental Divide National Scenic Trail

There is one NST within Region I of the analysis area: the CDNST **(Figure 3.15-9**). The 3,100-mile CDNST runs along the Rocky Mountains from Canada to Mexico. Administered by the USFS, a CMP was developed in 1985 and amended in 2009. As stated in the CMP, the trail’s nature and purpose is “to provide for high-quality scenic, primitive hiking and horseback riding opportunities and to conserve natural, historic, and cultural resources along the CDNST corridor” (USFS 2009a). The Rawlins FO RMP also provides management actions to emphasize interpretive and education opportunities, including designation of a 600-acre CDNST SRMA to emphasize interpretive and educational opportunities and to ensure the

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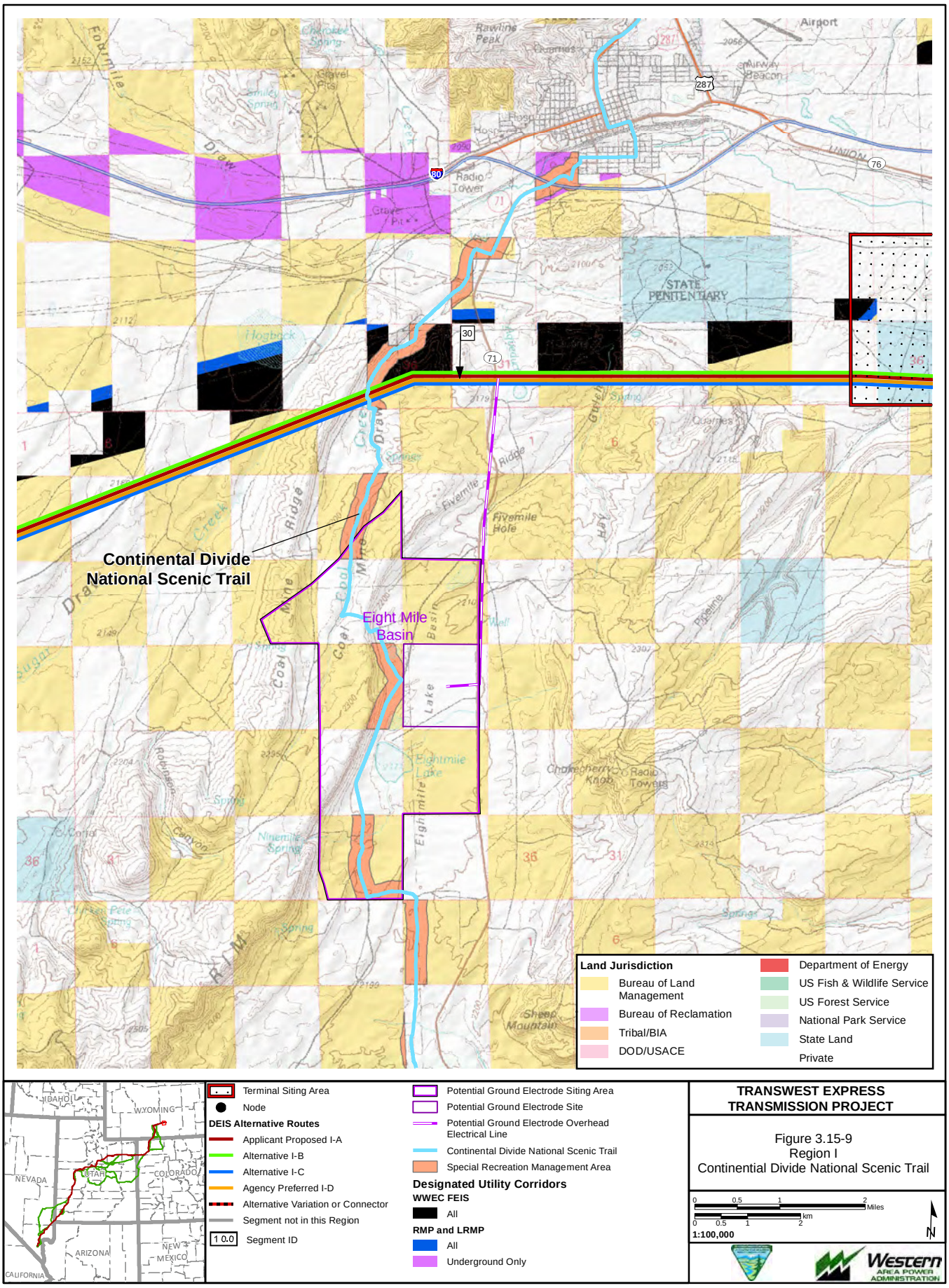

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continued availability of outdoor recreation opportunities associated with the trail. The SRMA contains the 82 miles of CDNST located on federal lands within the Rawlins FO. Recreation activities within the SRMA include backpacking, mountain biking, camping, hunting, OHV use, picnicking, and wildlife viewing. The SRMA is an avoidance area for linear utility systems.

The portion of the CDNST alignment and SRMA that potentially would be crossed by the Project is located south of Rawlins, Wyoming, approximately 3 miles south of Interstate Highway 80. The general area includes dispersed residential development, an existing transmission line and RMP-designated utility corridor, a state penitentiary, and a variety of industrial facilities. As a result, there are limited recreation opportunities along this section of the trail. The Rawlins FO's VRI has given this area a rating of Class B (medium, with a score of 17).

Overland and Cherokee Trails (Potential National Trails)

The Cherokee Trail is most commonly known for its use as an alternative route to the Oregon Trail, but it also served as a transportation route for freight, cattle, and passengers between Utah and Colorado to the Union Pacific Railroad in Wyoming. One segment of the southern route of the Cherokee Trail eventually became known as the Overland Trail, which was heavily used by emigrants and prospectors largely as an alternative route to the Oregon Trail. The Overland and Cherokee trails currently are under a feasibility study to be amended to the California NHT (Four Trails Feasibility Study Revisions/Environmental Assessment project: Revisions to Feasibility Studies for Oregon, Mormon Pioneer, California, and Pony Express NHT). A CMP was developed by the NPS for the California NHT in 1999, which likely would be modified after the completion of the feasibility study for the Overland and Cherokee Historic Trails. As stated in the California NHT 1999 CMP, the nature and purpose of the California NHT is to "enable all people to envision and experience, in a coherent and convenient way, the heritage and impacts on the western overland migration" (NPS 1999).

The BLM Rawlins FO has provided management direction in their 2008 RMP to protect resources associated with these historic trails, including a NSU stipulation within 0.25 mile or the visual horizon to the trail, whichever is closer (see **Appendix C**). The RMP also stipulates that actions resulting in linear crossings of the trails will occur in previously disturbed areas and will be managed in accordance with BMPs. The RMP provides no management with regard to compliance with the BLM National Trails Manuals series, recently released. NHT Condition Category and historic integrity assessment data are not available for these trails.

The Overland Trail traverses the Rawlins FO for approximately 18 miles and generally is parallel to I-80. There are three portions of the Overland Trail that potentially would be crossed by the Project alternatives within Region I. **Figure 3.15-10** shows the location of the Overland and Cherokee trails as related to the alternatives. From east to west, the trail crossing locations would be as follows:

- Along Highway 789, approximately 18 miles south of the intersection of Highway 789 and I-80.The 38-mile section of Highway 789 from Baggs to I-80 is part of the 205 mile Outlaw Trail Scenic Highway. There is an interpretive sign located on Highway 789 where the Overland Trail crosses the highway. The trail crossing would be located on private land within the confines of a designated utility corridor. Scenic quality is low in this area (Class C, with an SQRU score of 6). East of Highway 789, the Overland Trail generally parallels the Muddy Creek. Washakie Station, one of the few associated historic sites with standing ruins, is located less than 4 miles east of the highway.
- Approximately 16 miles south of Wamsutter, Wyoming, about 1 mile west of the Overland Trail's intersection with Wamsutter Road. The crossing would be located approximately 0.4 mile south of the Eureka Headquarters road and directly adjacent to an unnamed oil and gas access road. The Duck Lake Station, an associated historic site, would be about 4 miles to the west of the crossing. Nothing remains at this site. There are no associated recreation areas located near these trail segments and there are numerous well pads and an access road in the area. Scenic quality is low

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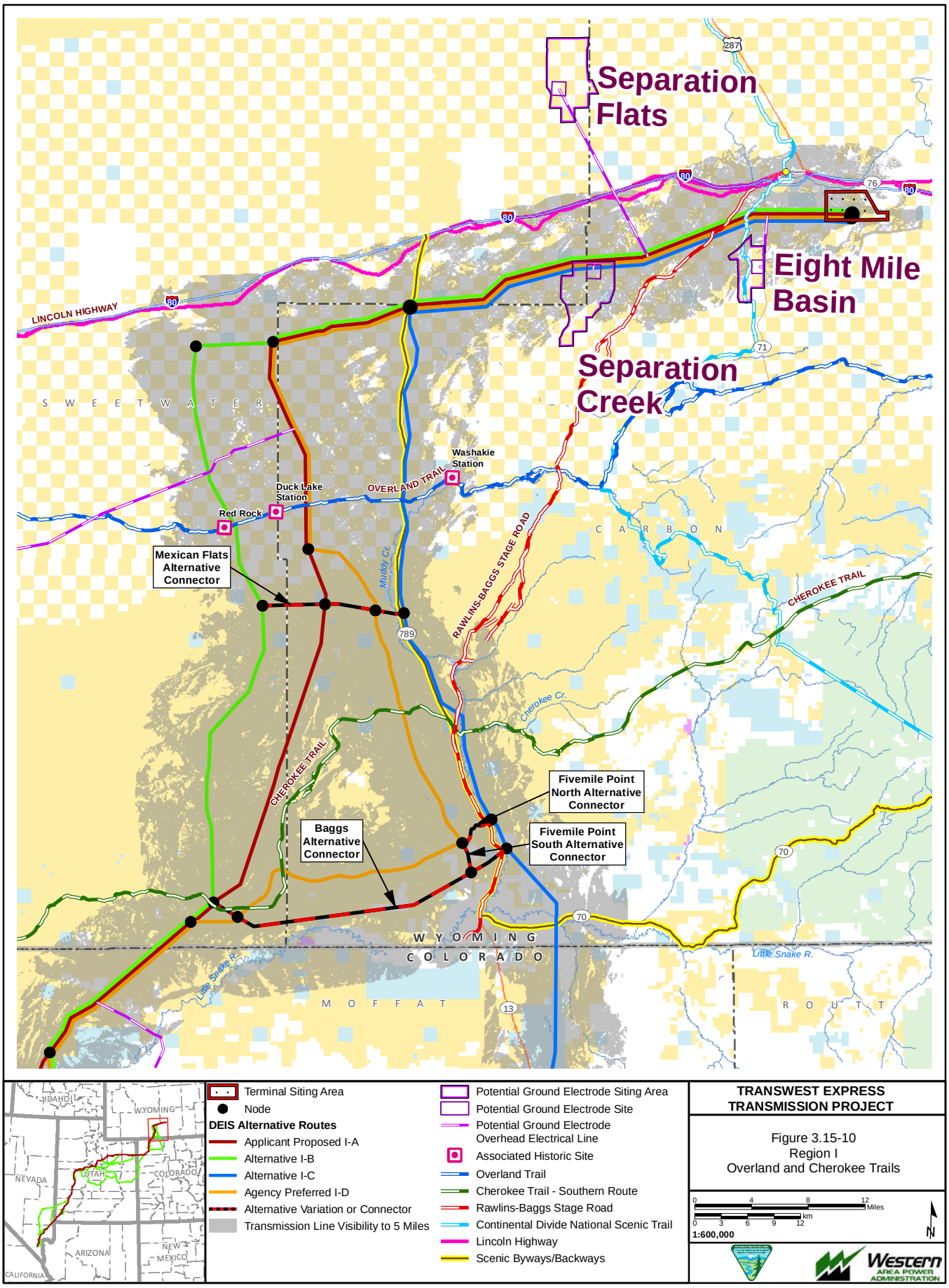

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in this area (Class C, with an SQRU score of 6). The trail crossing would be located on BLM land, but would not be within a designated utility corridor.

- Approximately 16 miles south of Wamsutter, Wyoming, about 6 miles west of the Overland Trail's intersection with Wamsutter Road and immediately adjacent to the Eureka Headquarters road. Scenic quality is low in this area (Class C, with an SQRU score of 8). Duck Lake Station would be about 1.5 miles to the east of the proposed crossing. Red Rock, a historical inscription site, would be about 3.25 miles to the west of the proposed crossing, on private land. There are no recreation areas or interpretive features located near these trail segments. There are numerous well pads and access road in the area. The trail crossing would be located on private land within the confines of a designated underground utility corridor.

The Cherokee Trail traverses the Rawlins FO in an east-west direction, crossing Highway 789 approximately 6 miles south of Dad, Wyoming, and 15 miles north of Baggs, Wyoming. The Cherokee Trail continues west just north of Flat Top Mountain, then drops to the southwest and follows the Powder Rim along a series of small washes. There are five portions of the Cherokee Trail that potentially would be crossed by the Project alternatives. From east to west, the trail crossing locations would be as follows:

- Approximately 12 miles north of Baggs and less than 1 mile east of Highway 789. The trail crossing would be directly to the east of Muddy Creek and to the south of Cherokee Creek (which generally parallels the Cherokee Trail route in this area). These two perennial water sources are associated with the Cherokee Trail in that they undoubtedly influenced its location. There are no interpretive signs located on the Highway and no associated historic sites located near these trail segments. The trail crossing would be located in BLM lands, immediately east of (but outside of) a designated utility corridor. Scenic quality is average in this area (Class B, with an SQRU score of 12).
- Approximately 14 miles north of Baggs and approximately 3 miles west of Highway 789. The trail crossing would be 4 miles east of North Flat of Mountain and adjacent to an oil and gas access road. There are no associated historic sites, recreation areas, or interpretive features located near these trail segments. The trail crossing would be located on BLM land and would not be within a designated utility corridor. Scenic quality is average in this area (Class B, with an SQRU score of 12).
- Approximately 13 miles west of Baggs, Wyoming, near the convergence of Shell Creek Stock, Poison Butte, and W. Hangout Roads. The Cherokee Trail is located in a wash that ultimately drains into the Little Snake River. There are no associated historic sites, recreation areas, or interpretive features located near these trail segments. The trail crossing would be located on BLM land and would not be within a designated utility corridor. Scenic quality is low in this area (Class C, with an SQRU score of 9.5).
- Approximately 18 miles west of Baggs, Wyoming, and southeast of the Cherokee Trail Road. There are no associated historic sites, recreation areas, or interpretive features located near these trail segments. The trail crossing would be located on BLM land within a designated underground utility corridor. Scenic quality is average in this area (Class B, with an SQRU score of 12).
- Approximately 3.5 miles southwest of the crossing near Creek Stock/ Poison Butte / W. Hangout Roads and 2.5 miles southeast of the crossing 18 miles west of Baggs. There are no associated historic sites, recreation areas, or interpretive features near trail segments in this area. The trail crossing would be on BLMs lands and would not be within a designated utility corridor. Scenic quality is average in this area (Class B, with an SQRU score of 12).

Old Spanish National Historic Trail

The Old Spanish NHT was designated as such on December 4, 2002, by the Old Spanish Trail Recognition Act of 2002, to be co-administered by the BLM and NPS. The NHT consists of a trail network overlain on Native American trails that crossed the expanse of the Colorado Plateau and the Mojave Desert, followed by trappers and traders from the 1820s through 1840s to reach a variety of destinations, including but not

limited to California. Much of the network was later incorporated into improved wagon road travel routes. There are portions of the Old Spanish NHT in Regions II, III, and IV; however, inventoried analysis units (AUs) only occur in Regions II and III.

Although no Class III inventories or in-depth visual analyses have been conducted to date for the Project, the EIS analysis of impacts to the Old Spanish NHT was supported with data obtained from the National Historic Trails Inventory Project (AECOM 2012). The 2012 National Historic Trails Inventory Project was not conducted for the Project, but was a separate endeavor conducted by the BLM using American Recovery and Reinvestment Act (ARRA) funding and staff resources to develop and apply new inventory and management tools that include consistent standards for trail resource documentation, protection, use, and preservation. A total of six NHTs across the western U.S. were investigated as part of the 2012 NHT Inventory. Of these six trails, only the Old Spanish NHT is located within the analysis area.

The Old Spanish NHT inventory is organized by 52 distinct AUs (i.e., selected route segments, sites, features, or trail resources). Each trail segment within an AU was categorized under the NHT Condition Categories. In order to identify high potential route segments, the 2012 National Historic Trail Inventory Project considered NHT Condition Category in conjunction with two setting components, scenic quality and the historic integrity of the setting (described earlier in this section). These were combined to result in a composite setting rating.

	Scenic Class A	Scenic Class B	Scenic Class C
Retains Integrity	SI	SI	SII
Diminished Integrity	SII	SIII	SIII

The composite setting rating was then arrayed against NHT Condition Category to derive an overall rating.

	SI	SII	SIII
NHT I/II	Exceptional Expression of Northern Terminal Siting Area Values	Exceptional Expression of Northern Terminal Siting Area Values	Notable Expression of Northern Terminal Siting Area Values
NHT III	Notable Expression of Northern Terminal Siting Area Values	Evident Expression of Northern Terminal Siting Area Values	High potential segment
NHT IV-VI	Evident Expression of Northern Terminal Siting Area Values	High potential segment	High potential segment

The following sections discuss the general location of the Old Spanish Trail by region; agency management of the portions of the trail within the analysis area; and the trail resources, qualities, values, uses (including public access and enjoyment), and associated settings within the analysis area.

Region II Analysis Area Old Spanish Trail Segments and Analysis Units

Within the Region II analysis area, the Old Spanish NHT follows a portion of the Colorado River west of the community of Fruita in Mesa County, Colorado; it continues west into Grand County, Utah (BLM Moab FO) along a highway corridor (U.S. Route 6/US 50/I-70) just below the Book Cliffs mountain range. Thereafter, the trail turns north-northwest through the San Rafael Desert and reaches its northernmost point in the northern half of the San Rafael Swell in Emery County (BLM Price FO). The Old Spanish NHT main route continues in a generally southwestern direction across Utah, along the Highway 89 corridor until the town of Junction, Utah, at which point the trail enters Region III, crossing the mountains separating Highway 89 from the I-15 corridor at Cedar City (Iron County). Both the BLM Moab and Price FOs have included direction for Old Spanish NHT management within their 2008 RMPs. However, these RMPs do not address compliance with the recently released BLM National Trails Manuals series and have not defined a National Trail Management Corridor. The Moab RMP indicates that it will consider plan amendment, as necessary, to incorporate provisions of the forthcoming Old Spanish NHT CMP.

The Region II analysis area includes the three AUs inventoried as part of the 2012 NHT Inventory: Book Cliffs, Blue Hills, and the San Rafael Swell AUs. **Figure 3.15-11** identifies the location of each AU corridor, including associated historic sites and key recreation and natural features, as related to the alternatives within the analysis area.

The Book Cliffs AU (Moab FO) contains portions of the Old Spanish NHT northern route and generally is located along I-70 from the Colorado border to the Green River area. There are 62 miles of inventoried trail within the AU; approximately 11 miles are NHT-II and rated as Exceptional. The remaining 51 miles of trail are primarily considered to be High Potential. Condition Category II segments occur in the east and west portions of the AU (AECOM 2012).

The eastern portion of the Book Cliffs AU is located slightly south of and generally parallel to I-70. The Old Spanish NHT route is evident through this area as a two-track road or a long swale. Integrity of historic setting is retained, and scenic quality is average (Class B, with an SQRU score of14), resulting in an overall setting rating of SI (AECOM 2012). The easternmost portion is partially located within the Utah Rims SRMA. The SRMA focuses on motorized, mechanized, and non-motorized route for the rapidly growing Grand Junction area and contains several camping areas. The portion of Highway 70 east of Highway 128 is part of the Dinosaur Diamond Prehistoric Byway.

The central portion of the Book Cliffs AU primarily is located along I-70. The OST trail route exists as a section of old highway or a barely evident grass swale. Trail segments in this area have diminished historic setting and low scenic quality (Class C, with SQRU scores of around 10) where it is adjacent to I-70 and railroad features, resulting in an overall rating of SIII (AECOM 2012). This portion of I-70 is not a part of the

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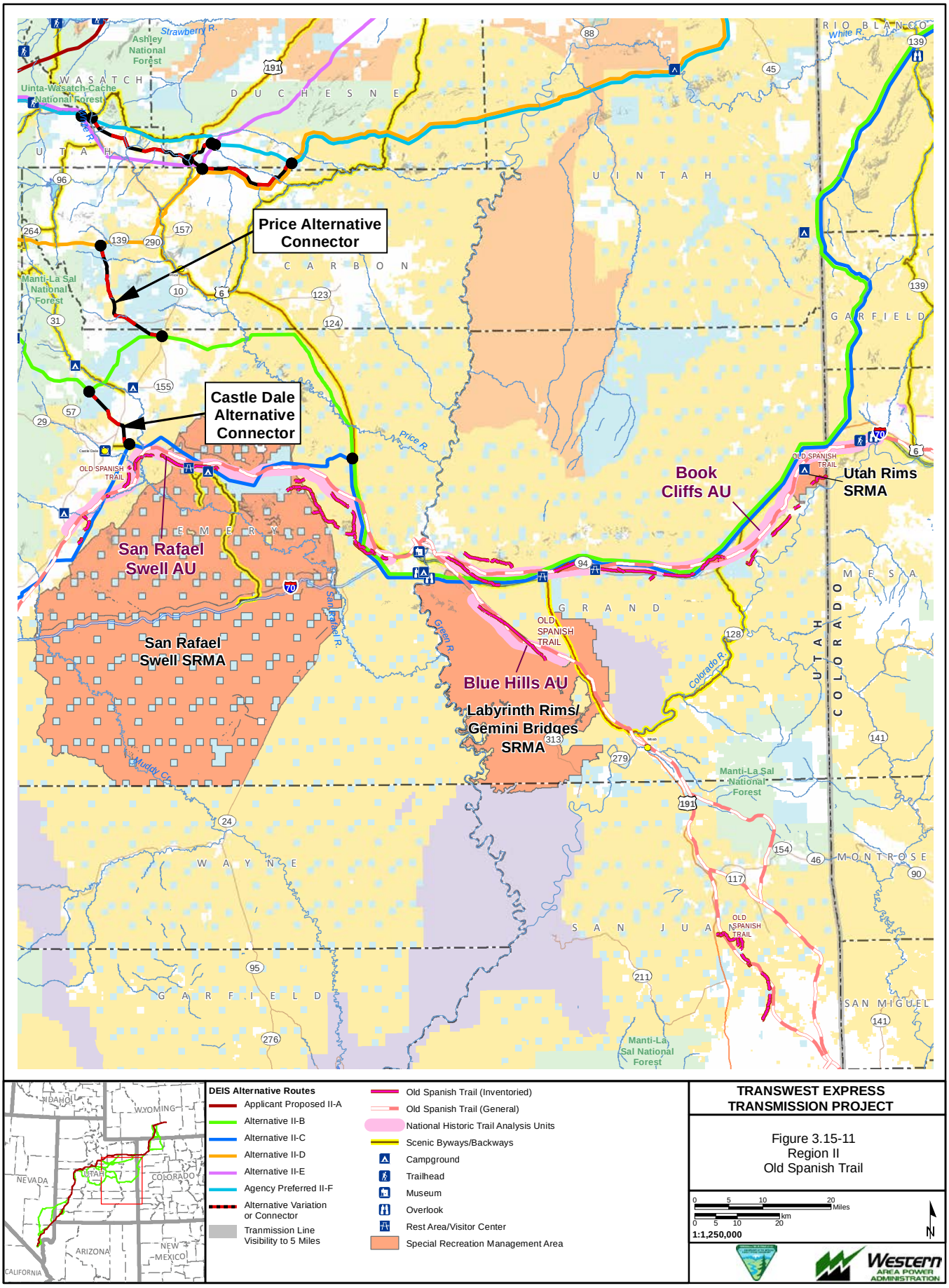

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Dinosaur Diamond Prehistoric Byway. There is one rest stop along this portion of the highway at Thompson Springs (milepost 189). The rest stop offers brochures and maps and provides access for hiking and to nearby Native American rock art at Sego Canyon.

The western portion of the Book Cliffs AU is located along I-70 west of Highway 191. The trail route is marked, variously, as a section of old highway, a single-track path, or a barely evident grass swale. At least one inscription from 1837 occurs within this segment. Integrity of historic setting is retained in the west sections of this AU (especially along the northern portion), and scenic quality is average (Class B, with an SQRU score of 11.5), resulting in an overall rating of SI in the northern segment (AECOM 2012). This portion of I-70 adjacent to the trail is part of the Dinosaur Diamond Prehistoric Byway. The Crescent Junction rest stop (located at milepost 181, at the turnoff to Highway 191) offers a view of the Cisco Desert and Bookcliffs, but has no interpretive sites. The Moab FO RMP includes a management decision to acquire public access to the site of the Old Spanish NHT ford of the Green River, upstream from the town of Green River, Utah, for the purpose of developing an interpretive site. To date, there is no interpretive site located in this area; however, the John Wesley Powell museum is located in the Town of Green River, adjacent to the modern river crossing, and offers historical interpretation displays and other visitor information.

The Blue Hills AU (Moab FO) contains portions of the Old Spanish NHT main route and generally is located south of the Green River, where the Old Spanish NHT main route joins the northern route. In places, the Old Spanish Trail route is visible as wagon ruts or a narrow swale; in other places, any trace of the trail has been obscured by a bladed road. Integrity of historic setting is retained throughout this AU with only a few intrusions, and scenic quality is average (Class B, with an SQRU score of11.5) over most of the AU, resulting in an overall rating of SI. There are13 miles of inventoried trail within the AU; approximately 3 miles are NHT-II and rated as Exceptional. An additional 0.5 mile of trail is rated as Notable. The remaining 10 miles of inventoried trail is considered to be High Potential. The northern portion of this AU is located within the Labyrinth Rims/Gemini Bridges SRMA. The portion of the SRMA nearest this AU is mostly managed for river recreation, and there are no developed camping areas located near the trail segment. Highway 191 (which is a portion of the Dinosaur Diamond Prehistoric Byway) is located to east of the trail segments. A small airport is located at the south end of the AU.

The San Rafael Swell AU (Price FO) includes portions of the Old Spanish NHT northern route and generally is located between Green River and Castle Dale, Utah. There are 58 miles of inventoried trail within the AU; approximately 15 miles are NHT-II and rated as Notable. The remaining 43 miles of trail are considered to be High Potential.

Trail segments are generally located west of Highway 6 just north of the turnoff from I-70 and the Town of Green River (Lost Springs Wash/Trail Springs Wash and Green River Crossing-Cottonwood Wash to Big Flat trail segments), and within portions the San Rafael Swell between Little Cedar Mountain recreation area and Castle Dale, Utah (the Big Flat to Walker Flat trail segments). The trail route is marked, variably, by a two-track, bladed gravel roads, and swales. Integrity of historic setting varies along this AU. Overall, historic setting is retained, but somewhat diminished. Scenic quality primarily is low (Class C, with SQRU scores of 6.5 and 7) within the AU, with the exception of the Green River Crossing to Big Flat segments, which are rated as average (Class B with an SQRU scores of 15.5 and 11.5). The overall rating of San Rafael Swell AU is SIII (AECOM 2012).

The Lost Springs Wash/Trail Springs Wash Segment is managed to preserve the historic character of the landscape, while providing for recreation opportunities and other resources values (BLM 2008). The area provides motorized recreation (limited to designated route), is VRM III, and is a ROW avoidance area except where the designated utility corridor crosses the trail. There are no identified historic or interpretive sites within this area.

The Green River Crossing (via Cottonwood Wash) to Big Flat segment is managed to preserve the historic character of the landscape while providing for recreation opportunities and other resources values (BLM 2008). The area provides motorized recreation (limited to designated routes), contains VRM I, II, and

III areas, and allows ROWs only in the designated utility corridor. There are two areas within this segment that were important watering places and appear to have been used extensively for camping (Big Hole and Little Hole). There also is one potential historic site in this area, the possible Gunnison Expedition camp (AECOM 2012).

The Big Flat to Walker Flat segment and portions of the Green River Crossing to Big Flat segment largely parallel County Road 401 (also known as the Green River cutoff). There is interpretive signage in several locations along County Road 401. The trail segments nearest to Little Cedar Mountain are located on state lands and are not included in the 2012 NHT Inventory. For the purposes of this analysis, it was assumed that the quality of these trail segments is similar to the rest of Big Flat to Walker Flat, and that these segments also would be rated as High Potential. The Big Flat to Walker Flat segment is managed for motorized recreation uses, and there are several recreational areas near the trail, most notably the Wedge Overlook/Buckhorn Drive Scenic Backway. There is a visitor center at the junction of Wedge Road and County Road 401. The area contains VRM I, II, and II areas and allows ROWs only in the designated utility corridor. The portion of the AU within the San Rafael Swell also is part of the San Rafael Swell SRMA. The SRMA is managed to provide motorized and recreational opportunities and contains numerous hiking and OHV trails, largely located to the south of the Old Spanish Trail segments. There are no identified historic or interpretive sites within this area; however, the Museum of San Rafael in Castle Dale, Utah, contains displays of Old Spanish NHT artifacts.

Portions of the Fishlake National Forest located southwest of the San Rafael Swell AU also contain segments of the Old Spanish Trail. The 2012 NHT Inventory did not inventory trail segments on non–BLM lands, thus there is no information regarding the Scenic Class, historic integrity, or resulting overall setting rating for these trail segments. BLM lands directly to the west of the NFS lands are Class C with an SQRU score of 9.5.

Region III Analysis Area Old Spanish Trail Segments and Analysis Units

Within the Region III analysis area, the Old Spanish NHT continues west of Cedar City in Iron County, Utah (Cedar City FO), then turns south through the Dixie National Forest, and continues west and then south to the Mormon Mesa area near the Utah-Nevada border (St. George and Caliente FOs), rejoining I-15 and generally paralleling the highway corridor to Las Vegas in Clark County, Nevada (Las Vegas FO).

The St. George, Caliente, Cedar City, and Las Vegas FOs do not address the Old Spanish NHT or compliance with the BLM National Trails Manuals series in their RMPs and have not defined a National Trail Management Corridor. The Dixie National Forest LRMP provides some protection of the trail through management areas but does not address the Old Spanish NHT in its LRMP with regard to a defined National Trail Management Corridor or Management Plan.

The Region III analysis area includes three of the AUs inventoried as part of the 2012 NHT Inventory: N. Cedar City, Mormon Mesa, and California Crossing. **Figure 3.15-12** identifies the location of these AU corridors within the analysis area, including historic sites and key recreation and natural features as related to the alternatives and ground electrode areas within the analysis area. The general location of trail segments within the Dixie National Forest also is depicted on **Figure 3.15-12**.

The N Cedar City AU (Cedar City FO) includes portions of the Old Spanish NHT northern route. The AU generally is located northwest of Cedar City and directly north of Dixie National Forest. No NHT Condition Category is available for this AU because it is primarily located on private lands and the portion that is on BLM lands was not included in the 2012 National Historic Trails Inventory Report. The scenic quality in the portion of this AU within the analysis area is primarily Class C (SQRU score of 8.5), with a small portion of the trail within Class B (SRCU score of 13.5) on the eastern side of the AU. There are no associated historic sites, interpretive sites, or recreation areas located near these segments. Within the Dixie National Forest, the Old Spanish Trail generally parallels Mogotsu Creek north and west of Central, Utah. The Mountain Meadows NHL and Site, an associated historic site, is located along the trail. Highway 18, which

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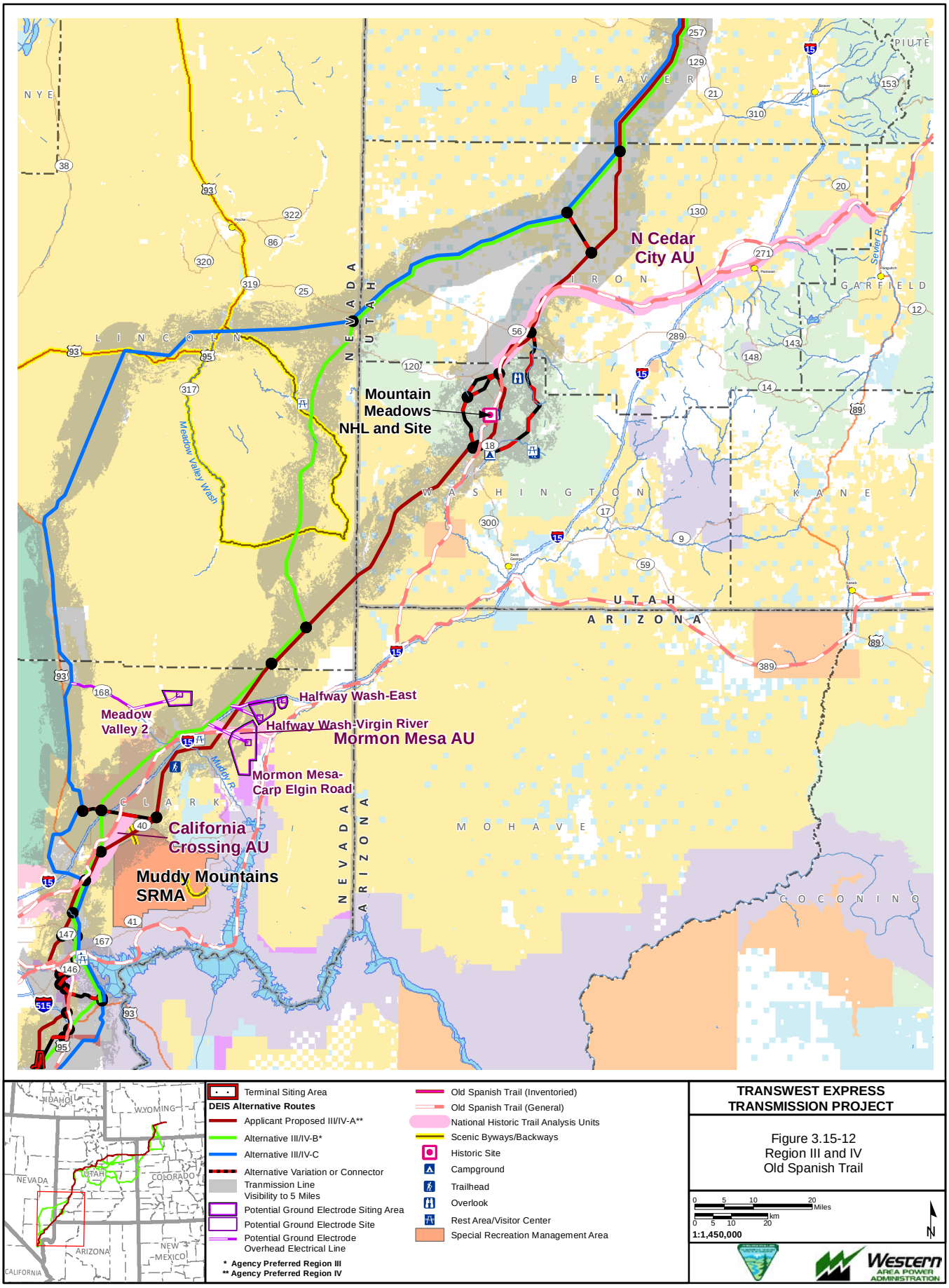

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Figure 3.15-12
Region III and IV
Old Spanish Trail

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generally parallels the trail, is a popular route for motorized recreation. Trail segments within the Dixie National Forest (of which approximately 15 miles are in the analysis area, were not evaluated in the 2012 National Historic Trails Inventory Report for NHT Condition Category or composite setting ratings.

The Mormon Mesa AU (Las Vegas FO) includes portions of the Old Spanish NHT main route. The AU generally is located between I-15 and the Virgin River, near Logandale, Nevada. There are 12 miles of inventoried trail segments within the AU; approximately 8 miles are NHT-I and II and occur as a nearly continuous trail trace. These segments are rated as Exceptional. The remaining 4 miles are rated as Evident. Within the Mormon Mesa AU, the trail route can be seen but is utilized by OHVs in some locations. Remnants of stone retaining walls occur in segment where the trail traverses the escarpment between Mormon Mesa and the Virgin River floodplain. The Meadow Valley Wash and the Muddy River are located near the AU. Integrity of historic setting is retained throughout this AU, and scenic quality over most of the AU is average (Class B, with an SQRU score of 15) except for the easternmost area along the Virgin River, which has high scenic quality (Class A, with a SQRU score of 21), resulting in an overall rating of SI (AECOM 2012).There are no interpretive signs or recreation areas, but there is a rest stop located on the side of the highway opposite the trail segment. There are no associated historic sites located near these segments.

The California Crossing AU (Las Vegas FO) includes portions of the Old Spanish Trail main route. The AU is located about 20 miles northeast of Las Vegas, east of I-15, near the intersection of I-15 and Highway 93 (the Great Basin Highway). There are 3 miles of inventoried trail within the AU; approximately 1 mile is NHT II and rated as Exceptional. The remaining 2 miles are rated as High Potential. At most locations within the inventoried 3-mile segment, no specific trail location or trace could be identified. One segment with well-sorted gravels and two faint ruts was identified. Integrity of historic setting is retained with only a few minimal intrusions. Scenic quality is low (Class C, with a SQRU score of 8.5), resulting in an overall rating of SII (AECOM 2012). There are no associated historic sites, interpretive sites, or recreation areas located near these segments.

3.15.3.8 Designated National Historic Landmarks and Districts

There is one NHL within the analysis area, the Mountain Meadows NHL and Site in Washington County in southwestern Utah. This NHL marks where 120 emigrants, most of them from Arkansas, were massacred by Mormon militiamen. The landmark and district is managed by the USFS and comprises as a discontiguous district made up of two parcels, capturing two known locations of the events that occurred from September 7 through 11, 1857, and later burial, commemoration, and memorialization efforts that continue to the present. The two parcels comprise approximately 760 acres of the existing approximately 3,000-acre NRHP historic district, which was listed in 1975. Impacts to the Mountain Meadows NHL and Site historic landmark and district are discussed in detail in Section 3.11, Cultural Resources; Section 3.12, Visual Resources; and Section 3.13, Recreation.

3.15.3.9 Designated Roadless Areas and Unroaded/Undeveloped Areas

<u>Inventoried Roadless Areas</u>

IRAs are identified as areas of NFS land currently inventoried for planning purposes as roadless. The 2001 Roadless Area Conservation Rule prohibits road construction, road reconstruction, and timber harvesting on IRAs on NFS lands. IRAs were designated primarily to preserve existing quality habitat sustained and supported by the absence of fragmentation from roads construction and mining or timber harvesting activities. Criteria for IRA designation are size (5,000 acres or more OR the area must be contiguous to existing wilderness, primitive areas, or potential wilderness; a self-contained ecosystem [such as an island]; or have physical terrain or natural conditions that would allow preservation) and lack of permanently authorized roads.

In addition, the Roadless Rule contains nine attributes that contribute to roadless area evaluation:

- High quality or undisturbed soil, water, and air;
- Sources of public drinking water;
- Diversity of plant and animal communities;
- Habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land;
- Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of dispersed recreation that provide recreation opportunities in areas with wilderness-like attributes but allow mechanized travel;
- Reference landscapes of relatively undisturbed areas that serve as a barometer to measure the effect of development on other parts of the landscape;
- Natural appearing landscapes with high scenic quality;
- Traditional cultural properties and sacred sites; and
- Other locally identified unique characteristics, such as, uncommon geological formations, unique wetland complexes, or social, cultural, or historical characteristics.

Wilderness attributes may also be affected by land-disturbing activities that occur in IRAs. The specific categories of wilderness quality that are considered for impacts include:

- Untrammeled (Is the land unhindered and free from modern human control or manipulation?).
- Natural (Are the land's ecological systems substantially free from the effects of modern civilization?).
- Undeveloped (Is the land essentially without permanent improvements or modern human occupation?).
- Outstanding opportunities for solitude or primitive/unconfined recreation (Can the land provide a solitary and natural recreation experience?).
- Special features (Does the land possess special ecological, geologic, scenic, or other significance?).
- Manageability (Can the land be managed to meet the wilderness size criteria of 5,000 acres?).

The Roadless Rule does not prohibit special use developments, but generally does prohibit the construction or reconstruction of any roads associated with these uses within the boundaries of an IRA.

Unroaded/Undeveloped Areas

Pursuant to prior NFMA implementing regulations at 36 CFR 219.17 (as published in 36 CFR 200 to 299 [July 1, 2000 edition]), and using inventory procedures found in the Forest Service Handbook 1909.12, Chapter 71, the national forests each created an inventory of draft URUD areas. These were formally initiated with NOIs in 2002 (Federal Register 11 67[90]:31178 and 67[91]:31761, respectively), with the purpose of identifying potential wilderness areas in the NFS during upcoming LRMP revision efforts. The Uinta National Forest, which completed its LRMP in 2003, has already evaluated draft URUD lands into LRMP management direction. For those national forests that did not complete their LRMP revisions (Fishlake, Dixie, Manti-La Sal, and Ashley national forests), this information represents the latest inventory data for areas with potential wilderness qualities or attributes. The 2005 draft inventories of URUD areas were based on direction in the Intermountain Region Planning Desk Guide: A Protocol for Identifying and Evaluating Areas for Potential Wilderness (USFS 2004). Wilderness attributes to be considered in the analysis of impacts to URUD areas are the same six attributes described under IRAs, above. However,

there is no policy, law, or directive guiding the management of identified draft URUD areas that lie outside of IRAs or wilderness areas; the only guidance for these areas is general forest or management area direction in the current LRMPs.

There are 31 IRAs and 26 URUD areas within the analysis area. These areas are listed in **Table 3.15-5** and shown on **Figures 3.15-13** through **3.15-16**. As shown on the figures, IRAs and URUD areas overlap considerably, but not entirely. **Appendix H** contains supporting information regarding the nine IRA natural resources attributes and the six wilderness attributes that apply to both IRAs and URUD areas.

Table 3.15-4 IRA/Unroaded-Undeveloped Areas in Analysis Area

National Forest	IRA/Unroaded-Undeveloped (URUD) Area	Acres IRA/URUD
Ashley (Region II)	IRA#401009/Alkali Canyon URUD	30,356/16,885
	IRA #0401010/Sowers Canyon East URUD	21,869/17,028
	IRA #0401011/Cottonwood Canyon URUD	30,039/25,989
	IRA #401012/First Canyon URUD/Right Fork Indian Canyon URUD	46,312/37,447/6,725
	IRA #401013/Mill Hollow Road URUD	11,892/6,128
Fishlake (Region II)	Browns Hole URUD	8,212
	Moroni Peak URUD	10,890
	Mount Terrill URUD	30,035
	North Pavant IRA/URUD	53,232/64180
	Oak Creek IRA/URUD	16,755/78,296
	Oak Ridge URUD	12,478
	The Rocks URUD	6,266
Manti-La Sal (Region II)	Boulger-Black Canyon IRA/URUD	23,266/24,430
	Cedar Knoll IRA/URUD	22,483/28,349
	Coal Hollow IRA/URUD	6,264/7,094
	East Mountain IRA/URUD	30,680/28,302
	Nuck Woodward IRA/Nuck Woodward-Gentry Mountain URUD	12,071/24,567
	Oak Creek IRA/URUD	16,755/5,349
	Sanpitch IRA/URUD	29,107/21,680
Uinta[1] (Region II)	IRA #418008/Chipman Creek	9,359
	IRA #418009/Willow Creek	18,049
	IRA #418015/Strawberry Ridge	17,274
	IRA #418016/Diamond Fork	35,210
	IRA #418017/Tie Fork	19,615
	IRA #418019/Soldier Summit	6,850
	IRA #418021/Hop Creek Ridge	6,250
	IRA #418028/Golden Ridge	33,976
	IRA #418029/Nephi	15,661
Dixie (Region II)	Atchinson IRA/URUD	17,663/24,306
	Bull Valley IRA/URUD	10,919/13,372
	Cove Mountain IRA/URUD	16,639/15,678
	Gum Hill IRA	3,182
	Kane Mountain IRA/URUD	8,016/9,635
	Moody Wash IRA/ Mogotsu IRA/ Moody Wash/Mogotsu URUD	31,857/16,771/58,994
	Pine Valley Mountain IRA/URUD	57,691/154,419

[1] Only lands within the Uinta National Forest portion of the Uinta-Wasatch-Cache National Forest are within the analysis area.

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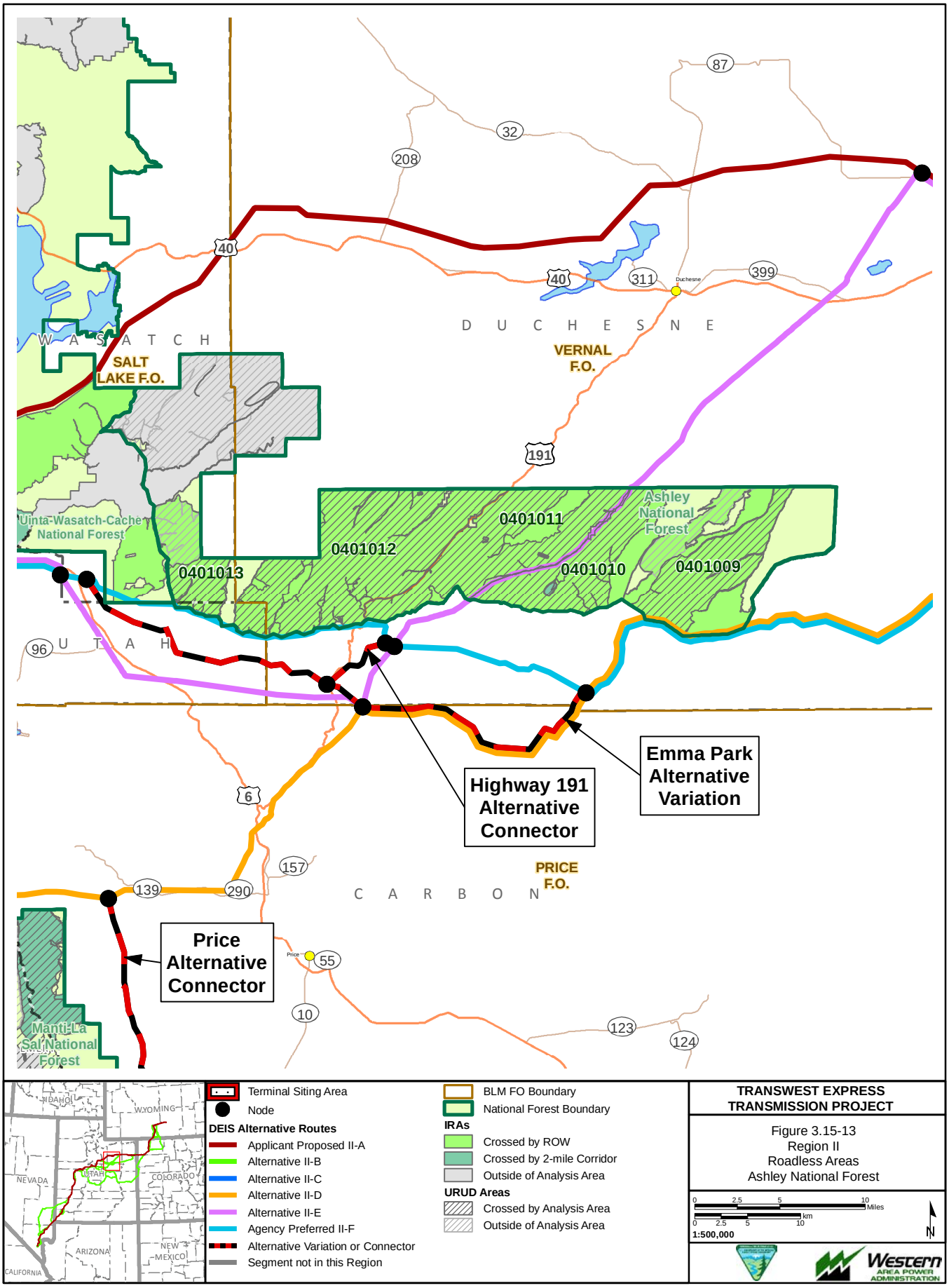

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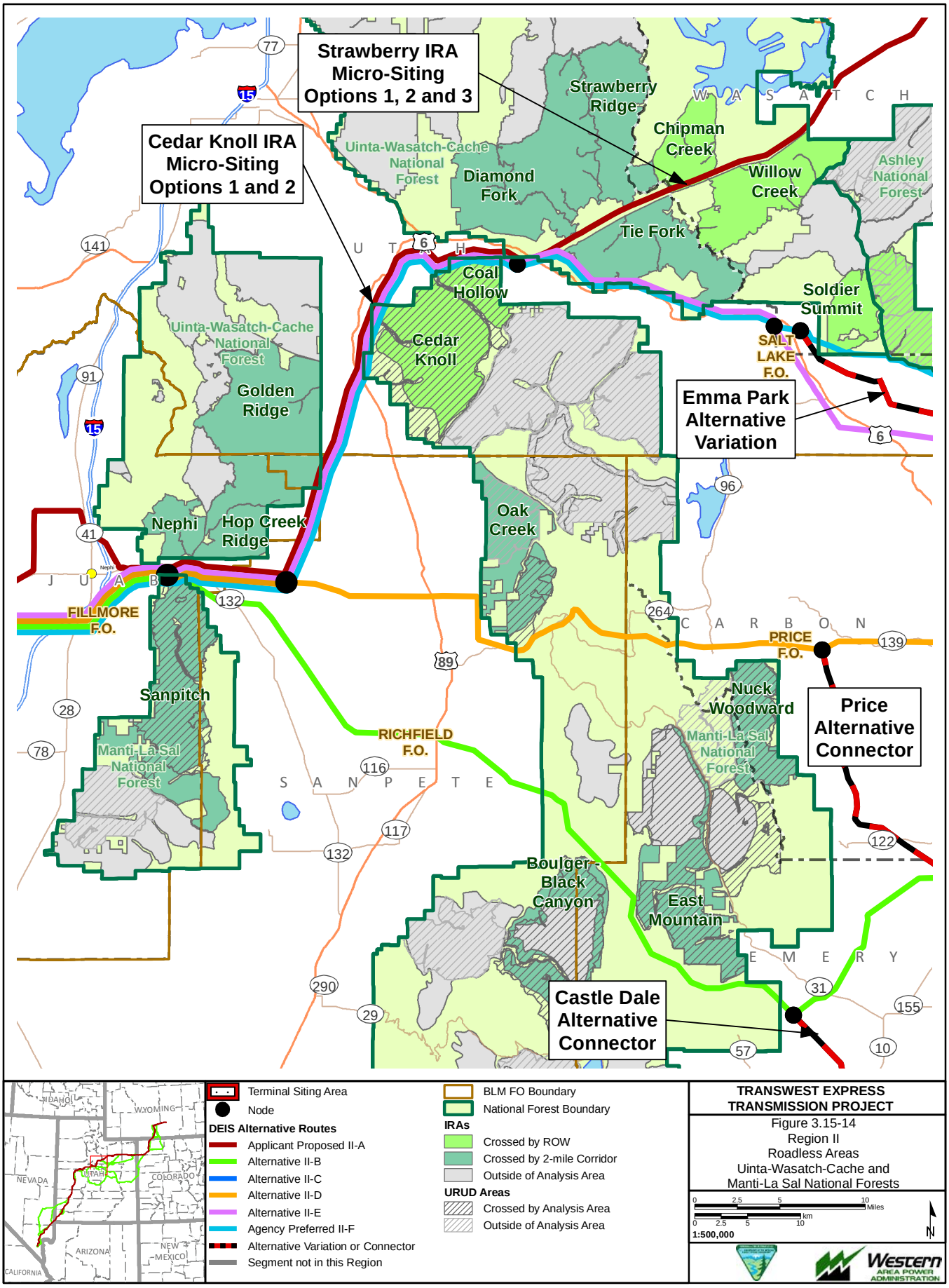

TRANSWEST EXPRESS TRANSMISSION PROJECT

Figure 3.15-14
Region II
Roadless Areas
Uinta-Wasatch-Cache and
Manti-La Sal National Forests

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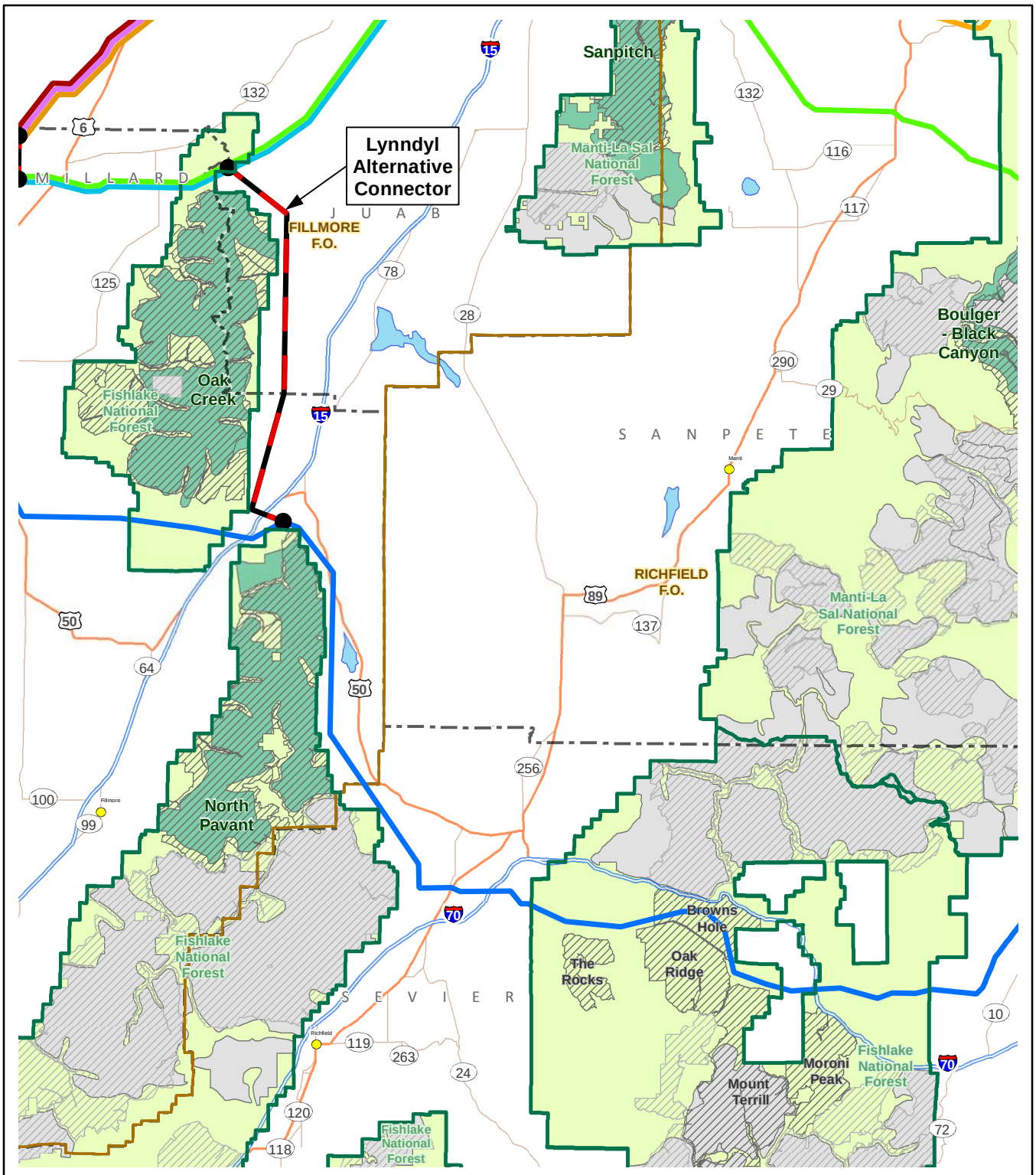

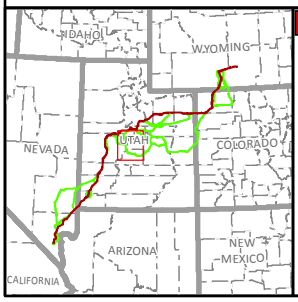

Terminal Siting Area
Node

DEIS Alternative Routes
- Applicant Proposed II-A
- Alternative II-B
- Alternative II-C
- Alternative II-D
- Alternative II-E
- Agency Preferred II-F
- Alternative Variation or Connector
- Segment not in this Region

BLM FO Boundary
National Forest Boundary

IRAs
- Crossed by 2-mile Corridor
- Outside of Analysis Area

URUD Areas
- Crossed by Analysis Area
- Outside of Analysis Area

TRANSWEST EXPRESS TRANSMISSION PROJECT

Figure 3.15-15
Region II
Roadless Areas
Fishlake National Forest

0 2.5 5 10 Miles
0 2.5 5 10 km
1:550,000
N

Western AREA POWER ADMINISTRATION

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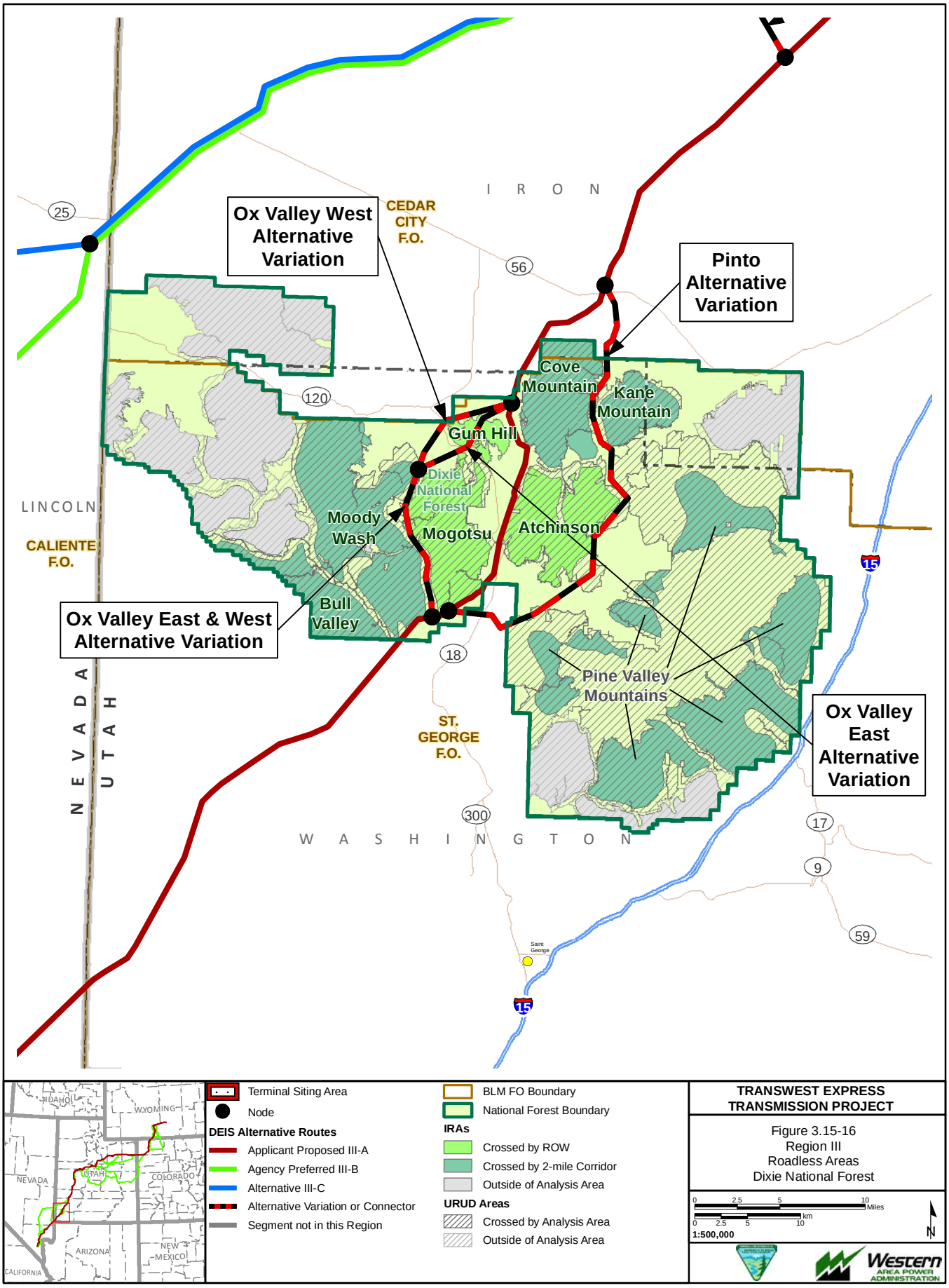

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3.15.3.10 Areas of Critical Environmental Concern

ACECs are an administrative designation made by the BLM through a land use plan. FLPMA defines an ACEC as an area "within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards."

To be designated as an ACEC, the area must meet the criteria of relevance and importance (as defined in BLM Manual 1613). An area meets the relevance criteria if it contains one or more of the following:

- A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).
- A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species, or habitat essential for maintaining species diversity).
- A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).
- Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the RMP process that it has become part of a natural process.

The value, resource, system, process, or hazard described in the relevance section must have substantial significance and values to meet the importance criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

- Has qualities that are more than locally significant, giving it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
- Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
- Is recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.
- Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
- Poses a significant threat to human life and safety or to property.

Private lands and lands administered by other agencies may be located within the boundaries of ACECs, but are not subject to the prescribed management of the ACEC.

Sixteen ACECs have been designated on BLM lands located within the analysis area. The applicable RMPs for each BLM FO identify the specific conditions and/or restrictions imposed within each of the ACECs. The ACECs located within the analysis area are tabulated in **Table 3.15-5** and shown on **Figures 3.15-1** through **3.15-4**.

3.15.3.11 Other Special Designation Areas

<u>Special Management Areas</u>

Other areas of special management have been designated because they contain strong characteristics of specific resources considered in special designation, but a determination by the agency has not been made or has been deferred.

The Monument Valley Special Management Area consists of 69,940 acres of BLM-administered lands in the Rock Springs FO with unique scenic features and the high potential for significant cultural and paleontological resources. It is managed to provide protection to wildlife, geologic, cultural, watershed, scenic, and scientific values. BLM has deferred designating this area an ACEC until additional cultural and paleontological surveys are completed to aide in the agencies' management determination.

State Wildlife Management Areas

The analysis area contains Wyoming WHMAs, Colorado state wildlife areas (SWA), hunting leases, and Utah WMAs. These WMAs have been established to preserve fish and wildlife habitat and to provide recreational opportunities including fishing, hunting, and wildlife viewing. Impacts to these areas are discussed in detail in Section 3.13, Recreation Resources.

Table 3.15-5 Areas of Critical Environmental Concern within the Analysis Area

BLM FO	ACEC	Relevance and Importance Values and Management Prescriptions[1]
Region I		
There are no ACECs in the analysis area.		
Region II		
White River FO, Colorado	Oil Spring Mountain WSA/ACEC (18,260 acres)	Designated for spruce-fir and biologically diverse plant communities, BLM sensitive species, and remnant vegetation associations. WSA is a ROW exclusion area but not recommended to be carried forward as wilderness. The proposed ACEC would be managed as a ROW avoidance area.
	White River Riparian ACEC (950 acres)	Designated for important biologically diverse plant communities, bald eagle roosts, Federally listed Colorado River squawfish below Taylor Draw Dam. ROW avoidance area; surface disturbance contingent upon avoidance of cottonwood communities, maintenance of utility as bald eagle habitat and properly functioning riparian community, and use of special reclamation techniques to accelerate recovery and reestablishment of habitat.
Grand Junction FO, Colorado	Badger Wash ACEC (1,520 acres)	Designated for sensitive plants; is a 680-acre hydrologic research area designed to study the effects of surface-disturbing activities on sediment yield; is designated as unsuitable for public utilities.
Vernal FO, Utah[2]	Lears Canyon ACEC (1,375 acres)	Contains a natural system, specifically relict plant and Douglas fir-pinyon-juniper vegetation communities, serves as a scientific reference area. NSO for oil and gas development (ROW avoidance area); closed to motorized travel; managed as VRM II.
	Nine Mile Canyon ACEC (44,168 acres)	Nationally significant Fremont, Ute, archaic rock art and structures, and special status plant habitat. Managed as NSO for oil and gas development (ROW avoidance area); managed as VRM II within the canyon.
	Lower Green River Corridor ACEC (8,470 acres)	Significant riparian habitat and outstanding (Class A) scenic values; provides critical habitat for 4 special status fish species and 11 special status species. The lower segment of the Green River has scenic qualities and undeveloped natural areas producing high quality recreation opportunities, as well as rare and fragile archaeological sites.
Price FO, Utah	Rock Art ACEC (contains 13 units, 5,300 acres total)	Some of the best examples of prehistoric rock art in the Colorado Plateau. ROW exclusion area; NSO for oil and gas development; excluded from land treatments and range improvements except for watershed control structures to protect cultural resource values; OHV limited to designated roads and trails.
	San Rafael Canyon ACEC (15,200 acres)	Designated for scenic values. The San Rafael River has cut a channel creating what is known as the "Little Grand Canyon" as viewed from the Wedge. The Black Boxes are world renowned. ROW avoidance area; NSO for oil and gas; VRM II; excluded from land treatments and range improvements unless used to protect or improve riparian values; OHV limited to designated roads and trails.

Table 3.15-5 Areas of Critical Environmental Concern within the Analysis Area

BLM FO	ACEC	Relevance and Importance Values and Management Prescriptions[1]
Region III		
St. George FO, Utah	Beaver Dam Slope ACEC (48,519 acres)	Designated for desert tortoise habitat; also contains habitat for a diversity of desert plant and animal species, many of which are listed by state or federal agencies as special status species. Included in the area are the Joshua Tree National Natural Landmark and the Woodbury Desert Study Area. The study area has been the focus of desert wildlife and ecosystem research since the 1930s. Values within the ACEC are at risk from increasing levels of human encroachment, off-road travel, and various forms of outdoor recreation. The area is designated as a ROW avoidance area except in designated utility and transportation corridors.
Caliente FO, Nevada	Beaver Dam Slope ACEC (36,800 acres)	Critical desert tortoise habitat; managed primarily for recovery of the species including such actions as closure or major restrictions on mineral development, removal of livestock grazing, limited OHV use to designated roads and trails, limiting authorization of new ROWs, limitation of fire management activities, and prohibition of land disposals. Contains sensitive plan species populations.
	Kane Springs ACEC (57,190 acres)	Critical desert tortoise habitat; managed primarily for recovery of the species, including such actions as closure or major restrictions on mineral development, removal of livestock grazing, limited OHV use to designated roads and trails, limitation of fire management activities, and prohibition of land disposals. ROW limited to use of existing corridors. Contains sensitive plant species populations.
	Mormon Mesa – Ely ACEC (109,680 acres within CFO)	Designated for critical desert tortoise habitat; also contains sensitive plant species populations. Management prescriptions include such actions as closure or major restrictions on mineral development, removal of livestock grazing, limitation on OHV use to designated roads and trails, limitation of fire management activities, and prohibition of land disposals. ROW limited to use of existing corridors and the ACEC contains both ROW avoidance and exclusion areas.
Las Vegas FO, Nevada	Mormon Mesa ACEC (151,360 acres within LVFO)	Designated for critical desert tortoise habitat. Management as ROW avoidance area except within existing corridors; requires reclamation of temporary roads. OHV use is limited to designated roads and trails.
	Coyote Springs Valley ACEC (75,500 acres)	Designated for critical desert tortoise habitat. ROW avoidance area except within corridors. Closed to locatable minerals and solid leasables, livestock grazing, and commercial collection of flora. OHV use is limited to designated roads and trails.
Region IV		
Las Vegas FO, Nevada	Rainbow Gardens ACEC (37, 620 acres)	Geological, scientific, scenic, and sensitive plant values throughout the ACEC; cultural values on 320 acres. The ACEC contains sensitive soil "badland" areas as well as the Great Unconformity, a location where there are missing intervals of the geologic record. In ROW avoidance area except within corridors; reclamation of temporary roads is required. OHV use limited to designated roads and trails.
	River Mountains ACEC (5,617 acres)	Bighorn sheep habitat; scenic viewshed for Henderson and Boulder City. ROW avoidance area except within corridors; reclamation of temporary roads is required. OHV use is limited to existing roads and trails.

[1] BLM VRM classes are described in more detail in Section 3.12, Visual Resources.

[2] Per the 2008 RMP, within the Vernal FO, ROWs exclusion and avoidance areas are consistent with areas closed to oil and gas leasing or with a NSO stipulation, respectively.

Sources: BLM 2008a,b,c,d; 1997a,b.

National and State Recreation Areas

Congressionally designated NRAs, BLM recreation use areas, and SRMAs are located within the analysis area. These recreation areas have been established to provide recreational opportunities including OHV uses, boating, and various types of non-motorized recreation. Impacts to these recreation areas are discussed in detail in Section 3.13, Recreation Resources.

3.15.4 Impacts to Special Designations

This analysis identifies the impacts to SDAs that would occur from the construction, operation, and decommissioning of the proposed Project. The analysis focuses on the alternative transmission line routes within each Project region and associated alternative variations and connectors, the north and south terminal areas, and ancillary facilities described in detail in Sections 2.4 and 2.5 and **Appendix D**.

For impacts from the Northern and Southern terminals, the analysis considers a 1-mile area surrounding the terminal footprint. For transmission line impacts, the analysis considers a 250-foot-wide transmission line ROW, centered on the transmission reference line (125 feet on either side of the reference line), in relation to the entire SDA. For impacts from access roads, staging areas, and fly yards, the analysis considers a 2-mile transmission line corridor within which these facilities would be located, in relation to the entire SDA.

Quantification of impacts to SDAs is based upon the following:

- Miles of reference line within an SDA;
- Acres of an SDA within the 250-foot-wide transmission line ROW; and
- Acres of an SDA within the proposed 2-mile transmission line corridor.

The assessment of impacts to SDAs is based on the interests and land management objectives of local and federal landowners and management agencies as well as public concerns as identified through public scoping. Impact assessment generally focuses on conformance with the management objectives for the area and impact to the resource values for which the SDA was designated (for example, the relevant and important values of an ACEC, the roadless characteristics of an IRA, or the wilderness attributes of a wilderness area or URUD area).

3.15.4.1 Impacts from Terminal Construction, Operation, and Decommissioning

This section discloses impacts to land uses that would occur from construction and operation of the Northern and Southern terminals, which are common to all action alternatives.

Northern Terminal

The Northern Terminal site would be on private lands in Carbon County, Wyoming, approximately 2.5 miles southwest of the town of Sinclair, Wyoming. The Northern Terminal facilities would occupy 234 acres of private lands (see **Figure 2-16**).

The Northern Terminal would not disturb any lands within any SDAs. There are no IRAs within the Northern Terminal. There would be no conflicts with state or federally established, designated or reasonably foreseeable planned SDAs because none exist in or near the Northern Terminal.

Southern Terminal

The Southern Terminal facilities would be in the Eldorado Valley approximately 15 miles southwest of Boulder City, in Clark County, Nevada. The Southern Terminal site initially would occupy 415 acres on private lands (see **Figure 2-17**). The Southern Terminal would be located entirely within the Eldorado Valley on lands that have been annexed by Boulder City. The Southern Terminal would not disturb any lands within any SDAs. However, the Southern Terminal is adjacent to the Sloan Canyon NCA. The 48,000-acre NCA is managed to conserve, protect, and enhance the cultural, archaeological, natural, wilderness, scientific, geological, historical, biological, wildlife, educational, and scenic resources of this area. The portion of the NCA closest to the Southern Terminal is managed as a semi-primitive, non-motorized area allowing camping, hiking, and equestrian use and is classified as VRM II. The NCA would not be directly affected by the proposed terminal facilities; however, during construction, the quality of the uses in the area closest to the Southern Terminal could be temporarily reduced from construction noise and activity. Visual impacts during operations would be consistent with existing uses (see Section 3.12, Visual Resources, for a

discussion of visual impacts and mitigation measures). As discussed in the Section 3.14, Land Use, re-siting the Southern Terminal facilities within the Energy Expansion Area would move the Southern Terminal further from the Sloan NCA and Nelson/Eldorado SRMA. Impacts to the Nelson/Eldorado SRMA are discussed in Section 3.13, Recreation Resources. Impacts from decommissioning would be similar those discussed under construction.

Design Options 2 and 3

Under Design Option 2, the Southern Terminal would be located near the IPP in Millard County, Utah instead of at the Marketplace in Nevada. Design Option 2 would have no new or additional effects to SDAs because there are no SDAs within the relocated Southern Terminal. The Marketplace Southern Terminal location would become a substation, with effects similar to those described above.

Under Design Option 3, a substation would be constructed on BLM lands directly adjacent to the IPP within Millard County, Utah. Design Option 3 would have no new or additional effects to SDAs because there are no SDAs within the proposed location for the substation.

3.15.4.2 Impacts Common to All Alternative Routes and Associated Facilities

Impacts to SDAs in the four Project regions may occur during construction, operation, maintenance, and decommissioning of the transmission line and associated temporary and permanent facilities associated with the alternative routes, alternative variations, and alternative connectors. Potential impacts to SDAs from the construction and operation of the Project would depend on the relevant and important values of each SDA; therefore, each SDA is discussed separately in the regional analyses contained in Sections 3.15.4.3 through 3.15.4.6.

At the end of the Project's 50-year ROW grant, or when it is determined that the Project is no longer economical, the Project would be decommissioned and the area reclaimed. Impacts from decommissioning of the Project are expected to be very similar to the effects from construction activities as discussed in the following sections. Upon decommissioning, land use impacts from construction and operation of the Project would generally be reversible with successful vegetation reclamation.

To reduce impacts from the Project on SDAs, TransWest has committed to comply with all agency stipulations (**Appendix C**, **TWE-1**). If BLM stipulations cannot be met, additional mitigation could be required, as discussed in the sections below. Special IRA construction techniques would be employed as described in **Appendix D**, and would not require the establishment of roads within these areas.

Design Options 2 and 3

Under Design Option 2 there would be a series compensation station midway between the IPP and the Eldorado Valley. Exact locations have not been determined, but would be within the 2-mile transmission line corridor and thus included in the alternative analysis contained in the regional analysis below.

Design Option 3 would involve phased construction. Timing of impacts to SDAs would vary due to construction schedule differences but would not appreciably change surface disturbance or impacts to resources for which SDAs were designated. There would be a series compensation station midway between the Rawlins and IPP. Exact locations have not been determined, but would be within the 2-mile transmission line corridor and thus included in the alternative analysis contained in the regional analysis below.

3.15.4.3 Region I

SDAs within Region I are listed in **Table 3.15-6** and are shown on **Figures 3.15-1** and **3.15-5**, The table includes SDAs within the 250-foot-wide transmission line ROW as well as SDAs outside of the 250-foot-wide transmission line ROW but within the 2-mile transmission line corridor.

Table 3.15-6 Region I: SDAs Within 250-foot-wide Transmission Line ROW and 2-Mile Transmission Line Corridor

Managing Entity	SDAs	Alternative I-A	Alternative I-B	Alternative I-C	Alternative I-D
NPS	Dinosaur National Monument	0 acres within 250-foot ROW, 16 acres within 2-mile corridor	0 acres within 250-foot ROW, 16 acres within 2-mile corridor	0 acres within 250-foot ROW, 16 acres within 2-mile corridor	0 acres within 250-foot ROW, 16 acres within 2-mile corridor
NPS	CDNST	1 trail segment crossed	1 trail segment crossed	1 trail segment crossed	1 trail segment crossed
BLM Rawlins FO	CDNST SRMA	0.1 mile/4 acres within 250-foot ROW; 179 acres within 2-mile corridor	0.1 mile/4 acres within 250-foot ROW; 179 acres within 2-mile corridor	0.1 mile/4 acres within 250-foot ROW; 179 acres within 2-mile corridor	0.1 mile/4 acres within 250-foot ROW; 179 acres within 2-mile corridor
Overland Trail					
BLM Rawlins FO	Crossings and segment NRHP eligibility	1 contributing segment crossed	1 contributing segment crossed	1 contributing segment crossed	1 contributing segment crossed
	Visibility of the alternative from the trail [1]	Visible along 9 miles of trail, 5 of which are contributing	Visible along 10 miles of trail, 4 of which are contributing	Visible along 7 miles of trail, 6 of which are contributing	Visible along 9 miles of trail, 4 of which are contributing
	Associated Historic Sites and natural features, and nearby recreation or interpretive features	None	Duck Lake Station, Red Rock	Highway 789 interpretive sign, Washakie Station, Muddy Creek	None
	Management/land use	BLM land, not within designated utility corridor	Private land	Private land	BLM land, not within designated utility corridor
Cherokee Trail					
BLM Rawlins FO	Crossings and segment NRHP eligibility	1 contributing segment crossed	1 contributing segment crossed	1 contributing segment crossed	3 non-contributing segments crossed
	Visibility of the alternative from the trail[1]	Visible along 24 miles of trail, 10 of which are contributing	Visible along 9 miles of trail, 4 of which are contributing	Visible along 11 miles of trail, 4 of which are contributing	Visible along 28 miles of trail, 10 of which are contributing
	Associated Historic Sites and natural features, nearby recreation or interpretive features	None	None	Muddy Creek, Cherokee Creek	None
	Management/land use	BLM land, within designated underground utility corridor	BLM land, within designated underground utility corridor	BLM land, not within a designated utility corridor	BLM land, not within a designated utility corridor

[1] Visibility of the alternative from the historic trails is based on the 5-mile (either side of the 250-foot-wide transmission line ROW) viewshed.

Alternative I-A (Applicant Proposed)

BLM SDAs and National Landscape Conservation System Lands

There are no BLM SDAs crossed by the 250-foot-wide transmission line ROW for Alternative I-A.

USFS IRAs and URUD Areas

There are no IRAs or URUD areas crossed by the 250-foot-wide transmission line ROW for Alternative I-A.

Other Federally Managed SDAs and National Trails

Approximately 16 acres of the Deerlodge Park Road, an access road to Dinosaur National Monument lies within the portion of the 2-mile transmission line corridor west of Highway 40; the 250-foot-wide transmission

line ROW would parallel an existing transmission line on the opposite (east) side of Highway 40. During construction, the presence of construction equipment, personnel, or traffic would temporarily reduce the quality of site visitation during construction. Although there are no known Dinosaur National Monument management restrictions associated with the Dinosaur National Monument access road, Project access roads and staging areas also most likely would be located on the east side of Highway 40 (opposite from the Dinosaur National Monument) to reduce travel distances, and to reduce impacts to highway traffic and the Dinosaur National Monument. BLM BMPs also would require consolidation of roads, support areas, and other infrastructure to minimize disturbance and would require reclamation of any roads not needed for operations unless otherwise specified by the managing agency. However, due to the importance of Dinosaur National Monument, the following additional mitigation measures are recommended to further reduce the potential for impacts:

SDA-1*: Within SDAs, access shall be limited to existing roads whenever practicable. ROWs that currently are not sited within SDAs shall not be placed within the SDA during subsequent micro-siting efforts associated with development of the POD.*

SDA-2*: If new or improved access roads cannot be avoided within SDAs, roads shall be closed or rehabilitated through methods developed through consultation with the landowner or land management agency. Methods for closure could include gates, obstructions such as berms or boulders, or partial or full restoration to natural contour or vegetation.*

Application of these mitigation measures would eliminate construction surface disturbance within the Deerlodge Park Road ROW and potential viewshed easement area, thereby reducing direct impacts to Dinosaur National Monument; however, there would still be temporary impacts to quality of site visitation due to the proximity of road and staging area locations. Additionally, during operation, visitors exiting the park via Deerlodge Park Road would see portions of the transmission line across Highway 40 (see Section 3.12, Visual Resources, for visual impacts).

The current proposed route for the 250-foot-wide transmission line ROW for Alternative I-A would cross a conservation easement that prohibits overhead transmission line. Micro-siting adjustments have been developed that would relocate the 250-foot-wide transmission line ROW outside of the easement area and closer to or within national monument lands. These micro-siting adjustments are analyzed under Alternative I-D.

Within the Rawlins FO, the transmission reference line would cross the CDNST and CDNST SRMA, just south of Rawlins, Wyoming, approximately 0.7 mile south of the designated utility corridor and existing transmission line crossing and 3 miles south of I-80. Approximately 0.1 mile of reference line (4 acres of 250-foot-wide ROW) would be located within the CDNST SRMA. This is less than 1 percent of the SRMA, which covers about 600 acres and 82 miles of trail, and less than 0.1 percent of the entire 3,100-mile CDNST. The 2-mile transmission line corridor, in which roads or construction support areas could be located, encompasses a total of 180 acres of the CDNST SRMA. This is 68 percent of the SRMA.

The NST/SRMA is managed to provide primitive recreational experiences and the scenic trail has national importance. The proposed transmission line would not be consistent with SRMA management as a ROW avoidance area because the reference line would not be located within the designated utility corridor.

During construction, noise and activity would temporarily adversely affect the primitive recreation activity for which the trail and SRMA are managed. This would primarily affect the non-mechanized recreation user group (hikers, backpackers, and equestrians). The proposed trail and SRMA crossing would be located near an existing 230- to 287-kV transmission line and the I-80 crossing.

Towers would be placed to avoid surface disturbance near the actual trail. The structures and conductors would be “sky-lined,” with strong contrast for form, moderate contrasts for line and color, and weak contrast for texture. Visual impacts would remain for the life of the Project. There are no additional site-specific visual

mitigations (or relocation of the National Trail Management Corridor) proposed for this crossing because the transmission line would cross the NST perpendicularly at some point and would still be "sky-lined" with those contrasts (see Section 3.12, Visual Resources). However, the VRI rating for this area (Class B, with a score of 17) would not change.

Selection of Alternative I-A would not be consistent with management of the CDNST SRMA as a ROW avoidance area, but would not affect BLM's ability to effectively manage the nature and purposes of the entire CDNST, trail resources, qualities, values, uses (including public access and enjoyment), and associated settings because of the small percentage of trail and SRMA within the 250-foot-wide transmission line ROW (less than 0.1 percent of the entire CDNST and less than 1 percent of the CDNST SRMA), and because any existing recreational experience and character of the trail at this location is already impacted by existing linear structures (a 230- to 287-kV transmission line, a railroad, and the I-80 crossings) and industrial uses. However, expansion of disturbance from access roads and other facilities outside of the 250-foot-wide transmission line ROW and into the 2-mile transmission line corridor would increase the area of the SRMA in which the recreation experience is diminished. The following mitigation is proposed to further reduce impacts to the SDA and consolidate transmission line corridors and associated disturbance in a manner more consistent with SRMA management:

SDA-3*: If designated corridors exist within the SDA, the transmission reference line, new roads, and ancillary construction areas shall only be located within designated utility corridors.*

Application of this mitigation would allow Alternative I-A to remain consistent with SRMA management and would consolidate impacts to the CDNST from linear facilities; however, visual impacts would not be mitigated because the transmission line would still cross the NST perpendicularly and would be "sky-lined" with those contrasts. Recreation mitigation measures to reduce/restrict access roads (see Section 3.13, Recreation) would further reduce impacts to the NST and SRMA.

Alternative I-A would cross the Overland Trail at a point approximately 16 miles south of Wamsutter, Wyoming, about 1 mile west of the trail's intersection with Wamsutter Road and approximately 0.4 mile south of the Eureka Headquarters road (see **Figure 3.15-10**). The segment of trail crossed by the alternative is a contributing segment to the trail's overall NRHP eligibility. Towers would be placed to avoid surface disturbance near the actual trail; however, because towers are typically placed a maximum of 1,500 apart, it is unlikely that the alternative would comply with the Rawlins RMP including an NSU stipulation within 0.25 miles on both sides of the trail. The placement of this crossing near an existing road would be in compliance with the RMP stipulations that linear crossings of the trails occur in previously disturbed areas; however, the trail crossing would not be within a designated utility corridor.

Alternative I-A would be visible from the Overland Trail for 9 miles of trail, 5 of which (44 percent) are contributing segments. There are no associated recreation areas located near these trail segments and there are numerous well pads and access road in the area. The proposed trail crossing would be located on BLM land, but would not be within a designated utility corridor. The transmission line would be "sky-lined" (increased impact) in these areas (see Section 3.12, Visual Resources); however, scenic quality is low in this area (Class C, with an SQRU score of 6). There are no recreation areas, or interpretive features located near these segments. Duck Lake Station is located about 4 miles to the west of the crossing and would be outside of the viewshed.

Alternative I-A would cross the Cherokee Trail approximately 18 miles west of Baggs, Wyoming, near a small wash. The segment of trail that would be crossed by the alternative is a contributing segment to the trail's overall NRHP eligibility. Towers would be placed to avoid surface disturbance near the actual trail and would span washes and other natural features associated with the trail location; however, because towers are typically placed a maximum of 1,500 apart, it is unlikely that the alternative would comply with the Rawlins RMP, including an NSU stipulation within 0.25 mile on both sides of the trail. Additionally, the placement of this crossing would not be in compliance with the RMP stipulations that linear crossings of the trails occur in previously disturbed areas, and the crossing would be located in a designated utility corridor

for underground utilities only. A plan amendment would be required to allow aboveground utilities in this area.

Alternative I-A would be visible from the Cherokee Trail for approximately 24 miles of trail, 10 of which (40 percent) contribute to the trail's overall NRHP eligibility. The transmission line would be "sky-lined" (increased impact) in these areas, and the scenic quality rating would be reduced from Class B (with a SQRU score of 12) to Class C (see Section 3.12, Visual Resources). There are no associated historic sites, recreation areas, or interpretive features located near these segments.

Once the final route is selected, an intensive Class III inventory and in-depth visual analysis would be conducted to determine the impact to contributing Overland and Cherokee trail segments crossed by the route or from which the route would be visible. If as contributing segment would be adversely affected, the effects would be minimized or mitigated onsite or offsite as stipulated in the Cultural Resources PA developed for the Project, and through implementation of design features and BMPs in concert with the Trail Study Agency and the Wyoming BLM National Trails Management Program Lead. Mitigation identified in Section 3.12, Visual Resources, includes measures to reduce visual impacts through use of BLM environmental colors and location of structures, roads, and other project elements as far back from road, trail, and river crossings as possible, and, where feasible, employ terrain and vegetation to screen views from crossings.

Alternative I-B

Impacts to the Dinosaur National Monument would be the same as under Alternative I-A. Micro-siting adjustments affecting Dinosaur National Monument are discussed under Alternative I-D.

Impacts to the CDNST would identical to Alternative I-A because the location of the NST crossing would be identical.

Alternative I-B would cross one segment of the Overland Trail about 6 miles west of the trail's intersection with Wamsutter Road and immediately adjacent to the Eureka Headquarters road. The segment is a contributing segment to the trail's overall NRHP eligibility. Impacts from the crossing itself would be the similar to Alternative I-A, except that the trail crossing would be located on private land and not subject to compliance with the Rawlins RMP historic trail stipulations.

Alternative I-B would be visible from the Overland Trail for 10 miles of trail, 4 of which (40 percent) are contributing segments. There are no associated recreation areas or interpretive features located near these segments. The crossing would be located about 1.5 miles to the west of Duck Lake Station. Nothing remains at this site. Red Rock, a historical inscription site, would be located about 3.25 miles to the west of the crossing on private lands. The transmission line would be "sky-lined" (increased impact) in these areas (see Section 3.12, Visual Resources); however, scenic quality is low in this area (Class C, with an SQRU score of 6).

Alternative I-B would cross one segment of the Cherokee Trail in the same location as Alternative I-A. Impacts from the crossing itself, including compliance with the Rawlins RMP historic trail stipulations, would be identical to Alternative I-A. The transmission line would be visible for 9 miles of the trail, 4 of which (44 percent) would be contributing segments. There are no associated historic sites, recreation areas, or interpretive features located near these segments. The transmission line would be "sky-lined" (increased impact) in these areas, and the scenic quality rating would be reduced from Class B (with a SQRU score of 12) to Class C (see Section 3.12, Visual Resources).

Alternative I-C

Impacts to the Dinosaur National Monument would be the same as under Alternative I-A. Micro-siting adjustments affecting Dinosaur National Monument are discussed under Alternative I-D.

Impacts to the CDNST would be identical to Alternative I-A because the location of the NST crossing would be identical.

Alternative I-C would cross one segment of the Overland Trail along Highway 789, approximately 18 miles south of the intersection of Highway 789 and I-80. The segment of trail crossed by the alternative is a contributing segment to the trail's overall NRHP eligibility, and there is an interpretive sign located on Highway 789 where the trail crosses the highway. Towers would be placed to avoid surface disturbance near the actual trail; however, because the trail crossing would be located on private land, it would not be required to comply with the Rawlins RMP historic trail NSU stipulations.

Alternative I-C would be visible from the Overland Trail for 7 miles of trail, 6 of which (86 percent) are contributing segments. The transmission line would be "sky-lined" (increased impact) in these areas (see Section 3.12, Visual Resources); however, scenic quality is low in this area (Class C, with an SQRU score of 6). Washakie Station, a one of the few associated historic sites with standing ruins, is located about 3.75 miles east of the highway, near Muddy Creek. There are no developed recreation sites located near these segments.

Alternative I-C would cross one segment of the Cherokee Trail approximately 12 miles north of Baggs and less than one mile east of Highway 789. The segment of trail that would be crossed by the alternative contributes to the trail's overall NRHP eligibility. Towers would be placed to avoid surface disturbance near the actual trail and would span washes and other natural features associated with the trail location. Because towers are typically placed a maximum of 1,500 apart, it is unlikely that the alternative would comply with the Rawlins RMP's 0.25 mile NSU stipulation on both sides of the trail. Additionally, the trail crossing (located on BLM lands about one mile east of highway and outside of the designated utility corridor) would not be in compliance with the RMP stipulation that linear crossings of the trails occur in previously disturbed areas. A plan amendment would be required to allow expansion of the designated utility corridor to include the trail crossing.

Alternative I-C would be visible from the Cherokee Trail for approximately 11 miles of trail, 4 of which (36 percent) contribute to the trail's overall NRHP eligibility. There are no interpretive signs located on the highway and no associated historic sites located near these segments. However, Alternative I-C would cross Muddy Creek and Cherokee Creek, two perennial water sources that are associated with the Cherokee Trail and undoubtedly influenced the trail location. Alternative I-C would cross Muddy Creek about 1 mile north of the Cherokee Trail and would be located between the Highway and the trail crossing, within the expanded designated utility corridor. The Cherokee Creek crossing would be located directly adjacent to the proposed Cherokee Trail crossing and would also be located within the expanded designated utility corridor. The transmission line would be "sky-lined" (increased impact) in these areas, and the scenic quality rating would be reduced from Class B (with a SQRU score of 12) to Class C (see Section 3.12, Visual Resources).

Alternative I-D (Agency Preferred)

Under Alternative I-D, impacts to the Dinosaur National Monument would be the same as under Alternative I-A. The route for the 250-foot-wide transmission line ROW for Alternative I-D would cross a conservation easement (the Tuttle Easement) that prohibits overhead transmission line. Three micro-siting adjustments have been developed that would relocate the 250-foot-wide transmission line ROW outside of the easement area and closer to or within national monument lands.

- Under Tuttle Easement Micro-siting Option 1, the transmission reference line and 250-foot-wide transmission line ROW would remain within the Tuttle Easement but would be placed about 0.25 mile closer to Highway 40, following two existing transmission lines through the area with a 250-foot offset. Impacts to the Dinosaur National Monument would be the same as described under Alternative I-A; however the transmission line would be more noticeable from the Dinosaur National Monument lands because it would be closer.

- Under Tuttle Easement Micro-siting Option 2, the transmission reference line and 250-foot-wide transmission line ROW would be placed between the easement area and Dinosaur National Monument's Deerlodge Road. The reference line would cross Highway 40 twice and would be "sky-lined" in those areas. This micro-siting option would cause high impacts to high sensitivity recreational viewers (including visitors entering or leaving Dinosaur National Monument) in immediate foreground (0.0 to 0.5 miles) viewing situations (see Section 3.12, Visual Resources). There would be no additional disturbance within Dinosaur National Monument lands; however, during construction, the presence of construction equipment, personnel, or traffic would temporarily reduce the quality of site visitation during construction and could impede traffic of Highway 40. Access roads and staging areas also could be located on the west side of Highway 40, closer to the National Monument. BLM BMPs also would require consolidation of roads, support areas and other infrastructure to minimize disturbance and would require reclamation of any roads not needed for operations. Application of **SDA-1** and **SDA-2** would reduce direct impacts to Dinosaur National Monument; however, there would still be temporary impacts to quality of site visitation due to the proximity of road and staging area location, and there would be permanent visual impacts from the presence of the transmission line.
- Under Tuttle Easement Micro-siting Option 3, the transmission reference line and 250-foot-wide transmission line ROW would cross the NPS Deerlodge Road west of Highway 40. There would be approximately 1 acre of the 250-foot-wide transmission line ROW that would be within Dinosaur National Monument lands. The applicant would work with the NPS during development of the construction POD on tower micro-siting and construction timing to minimize visual impacts and ensure that project construction would not interfere with the timing of proposed road upgrades and would minimize impacts to recreational visitation. BLM BMPs also would require consolidation of nearby access roads, support areas, and other infrastructure to minimize disturbance and would require reclamation of any roads not needed for operations. Application of **SDA-1** and **SDA-2** would eliminate construction surface disturbance within the Deerlodge Road ROW and potential viewshed easement area and no vegetation clearing would be required within the 250-foot-wide transmission line ROW due to the height of existing vegetation in this area. The primary values and resources for which the park was designated or for which the park is managed (paleontological features, vegetation and wildlife, and river recreation) would be maintained; however, the transmission reference line would be "sky-lined" and would be visible from more mileage of Deerlodge Road and the placement of the line across Deerlodge Road would affect the ability of the NPS to protect visual quality along this portion of the road through the same types of scenic easements that are in place for portions of the road further within Dinosaur National Monument. Per 2006 NPS Park Management Policy, ROWs may be issued only pursuant to specific statutory authority, and generally only if there is no practicable alternative to such use of NPS lands. Alternatives to crossing the Dinosaur National Monument do exist, namely selection of Alternative I-D, or micro-siting options 1 and 2. Overall, the Tuttle Easement Micro-siting Option 3 would have increased impacts to the SDA as compared to Tuttle Easement options 1 and 2, because it crosses the most area of congressionally designated national monument lands and would affect the ability of the NPS to protect visual quality along this portion of the road for future generations.

Impacts to the CDNST would be identical to Alternative I-A, because the location of the NST crossing would be identical.

Alternative I-D would cross one segment of the Overland Trail, in the same location as Alternative I-A. Impacts from the crossing itself, including compliance with the Rawlins RMP historic trail stipulations would be identical to Alternative I-A. Alternative I-D would be visible from the Overland Trail for 9 miles, 4 of which (44 percent) are contributing segments.

Alternative I-D would cross the Cherokee Trail in three locations.

- Approximately 14 miles north of Baggs and 3 miles west of Highway 789. The crossing would be adjacent to an oil and gas access road. There are no associated historic sites, recreation areas, or interpretive features located near trail segments in this area. The trail crossing would be located on BLM land and would not be located within a designated utility corridor. The transmission line would be "sky-lined" (increased impact) in these areas, and the scenic quality rating would be reduced from Class B (with a SQRU score of 12) to Class C (see Section 3.12, Visual Resources).
- Approximately 13 miles west of Baggs, Wyoming, near the junction of Shell Creek Stock, Poison Butte, and W. Hangout Roads. The segment of trail that would be crossed is located in a wash that drains into the Little Snake River. There are no associated historic sites, recreation areas, or interpretive features near trail segments in this area. The trail crossing would be located on BLM land and would not be within a designated utility corridor. The transmission line would be "sky-lined" (increased impact) in these areas (see Section 3.12, Visual Resources); however, scenic quality is low in this area (Class C, with an SQRU score of 9.5).
- Approximately 3.5 miles southwest of the crossing near Creek Stock/Poison Butte/W. Hangout roads and 2.5 miles southeast of the proposed Alternative I-A/I-B crossing. There are no associated historic sites, recreation areas, or interpretive features near trail segments in this area. The trail crossing would be located on BLM land and would not be within a designated utility corridor. The transmission line would be "sky-lined" (increased impact) in these areas, and the scenic quality rating would be reduced from Class B (with a SQRU score of 12) to Class C (see Section 3.12, Visual Resources).

All three segments of the Overland Trail that would be crossed by the alternative are non-contributing segments to the trail's overall NRHP eligibility. Towers would be placed to avoid surface disturbance near the actual trail and washes; however, because towers are typically placed a maximum of 1, 500 apart, it is unlikely that the alternative would comply with the Rawlins RMP, including an NSU stipulation within 0.25 mile on both sides of the trail. Additionally, the placement of this crossing would not be in compliance with the RMP stipulation that linear crossings of the trails occur in previously disturbed areas. Per the Rawlins FO RMP, non-contributing segments are not managed for the preservation of historic values; however, the RMP does not fully address trail corridor management with regard to compliance with the BLM National Trails Manuals series. A plan amendment would be required to designate a new Wamsutter-Baggs-Powder Rim Corridor.

Alternative I-D would be visible from the Cherokee Trail for approximately 28 miles, 10 of which (36 percent) are contributing segments. There are no associated historic sites, recreation areas, or interpretive features near trail segments in this area.

Alternative Variation in Region I

There are no alternative variations within Region I.

Alternative Connectors in Region I

There are no SDAs affected by the Mexican Flats, Baggs, Fivemile Point North, or Fivemile Point South alternative connectors.

Alternative Ground Electrode Systems in Region I

A ground electrode system of approximately 600 acres in size would be necessary in Region I within 50 to 100 miles of the northern terminal, as discussed in Chapter 2.0. Although the location for this system has not been determined, conceptual locations and connections to the alternative routes have been provided by the project proponent. The ground electrode system alternative locations in Region I are depicted in Chapter 2.0 on **Figure 2-21**. The conceptual sites would not include any SDAs; however, the Shell Creek

ground electrode system siting area would include 34 acres within the Adobe Town WSA (a designated ROW exclusion area) and 238 acres within the Monument Valley SMA. The Eight-mile Basin ground electrode system siting area includes 406 acres of the CDNST.

The following mitigation is proposed to eliminate impacts to these areas:

***SDA-4**: Ground electrode systems shall be sited outside of any designated SDAs located within the ground electrode siting areas.*

Application of this mitigation would eliminate impacts to these SDAs.

Application of **SDA-1** (avoidance of new road construction in SDAs) would eliminate construction of any access roads within this area.

Region I Conclusions

Alternatives I-A, I-B, I-C, and I-D would have equal effect on the CDNST and the Dinosaur National Monument Deerlodge Park road. Application of design features (**Appendix C**) and mitigation would minimize the impacts to Dinosaur National Monument through avoidance of SDAs and road reclamation, but there would be temporary impacts to visitors from construction noise and some visual impacts to park visitors entering/exiting the park during operations. The Tuttle Easement micro-siting options 1, 2, and 3 would result in increasingly greater impacts to Dinosaur National Monument lands.

The alternatives would not be consistent with management of the CDNST SRMA as an ROW avoidance area, but would not affect BLM's ability to effectively manage the nature and purposes of the entire 3,100-mile CDNST, trail resources, qualities, values, uses (including public access and enjoyment), and associated settings because of the small percentage of trail affected (less than 0.1 percent of the entire CDNST and less than 1 percent of the CDNST SRMA). Additionally, any existing recreational experience and character of the trail at this location is already impacted by existing linear structures (a 230- to 287-kV transmission line, a railroad, and the I-80 crossings) and industrial uses. There are no additional site-specific visual mitigations (or relocation of the National Trail Management Corridor) proposed for this crossing because the transmission line would cross the NST perpendicularly at some point and would still be "sky-lined" with those contrasts (see Section 3.12, Visual Resources).

Alternative I-A, I-B, and I-D would each cross one contributing segment of the Overland Trail and be visible for similar amounts of trail mileage contributing to NRHP eligibility. However, Alternatives I-A and I-D would not be located near any associated historic sites and natural features, or nearby recreation or interpretive features; whereas, Alternative I-B would be located near Duck Lake station and Red Rock historic sites. Alternative I-C would have the greatest impacts on the Overland Trail management, as it would cross one contributing segment of the Overland Trail, would affect the viewshed of the most trail mileage contributing to the trail's NHT status, would be located adjacent to an interpretive sign on Highway 789, and would be located near the Washakie Station historic site and Muddy Creek, a perennial waterbody of importance to trail travelers. The alternatives that would be located on BLM land (I-A and I-D) would not be compliant with the RMP 0.25-mile NSU stipulations.

Alternative I-A would have the greatest impacts to the Cherokee Trail, as it would cross one segment contributing to the trail's NHT status, would be visible from the most miles of contributing segments, and would result in a reduction in scenic quality (from Class B to Class C) for areas surrounding the trail. However, it would not be located near any associated historic sites and natural features or nearby recreation or interpretive features. Alternative I-D would only cross non-contributing segments and would not be located near any associated historic sites and natural features or nearby recreation or interpretive features. However, this alternative would also be visible from 10 miles of contributing segments and the scenic quality for portions of the trail would be reduced from Class B to Class C. Alternatives I-B and I-C both would cross one contributing segment each and would also be visible from 6 fewer miles of contributing segments than

Alternatives I-A and I-D. Both would result in reduction in scenic quality (from Class B to Class C) for areas surrounding the trail. However, Alternative I-C also would cross Muddy Creek and Cherokee Creek, perennial waterbodies of importance to trail travelers. The alternatives that would be located on contributing segments on BLM land (I-A, I-B, and I-C) would not be compliant with the RMP 0.25-mile NSU stipulations.

Once the final route is selected, an intensive Class III inventory and in-depth visual analysis would be conducted to determine the impact to contributing segments of the Overland and Cherokee trails crossed by the route or from which the route would be visible. If a contributing segment would be adversely affected, the effects would be minimized or mitigated onsite or offsite as stipulated in the Cultural Resources PA developed for the Project and through implementation of design features and BMPs in concert with the Trail Study Agency and the Wyoming BLM National Trails Management Program Lead. Mitigation identified in Section 3.12, Visual Resources, includes measures to reduce visual impacts through use of BLM environmental colors and location of structures, roads, and other project elements as far back from road, trail, and river crossings as possible, and, where feasible, employ terrain and vegetation to screen views from crossings.

3.15.4.4 Region II

Tables 3.15-7 through **3.15-10** provide a list of the SDAs that would be crossed by the proposed 250-foot-wide transmission line ROW under all alternatives and areas that would be located within the 2-mile transmission line corridors. These areas are depicted in **Figures 3.15-2**, **3.15-6**, **3.15-11**, and **3.15-13** through **3.15-15**.

Alternative II-A (Applicant Proposed)

BLM SDAs and National Landscape Conservation System lands

Alternative II-A would not cross any lands within the National Landscape Conservation System Lands or BLM-designated ACECs.

USFS IRAs and URUD Areas

The Alternative II-A 250-foot-wide transmission line ROW would cross approximately 2 miles of the Chipman Creek IRA within the Uinta National Forest and 3 miles of IRA/URUD areas within the Manti-LaSal National Forest. The 2-mile transmission line corridor would encompass portions of seven additional IRAs within the Uinta National Forest.

Within the Upper Spanish Fork management area (MA) of the Uinta National Forest, the 250-foot-wide transmission line ROW would be primarily within a designated utility corridor that is located between five IRAs, except for a 2-mile section where the designated utility corridor shifts abruptly to the east following Forest Road #335 and an existing transmission line located to the east side of the road. In this area, approximately 2 miles of the 250-foot-wide transmission line ROW would cross the 9,349-acre IRA #418008 (Chipman Creek). The 250-foot-wide transmission line ROW would re-enter the designated corridor when the road and transmission line shift back to the west (**Figure 3.15-14**). The proposed route would be located about 0.25 mile from the edge of the Chipman Creek IRA and the road. This would essentially widen the linear corridor in this area, as the portion of the IRA between the transmission line and the road would be separated from the rest of the IRA and would lose wilderness character.

Use of a full 250-foot-wide transmission line ROW would result in up to 74 acres of vegetation removal within the Chipman Creek IRA (0.8 percent of the 9,349-acre IRA). Roadless construction methods (as identified in the PDTR, see **Appendix D**) would be utilized within IRAs to ensure compliance with the Roadless Rule. These include use of helicopters for tower placement, use of existing roads, and overland travel. Application of the roadless construction techniques within IRAs would reduce the ROW within the IRA to about 30 acres and would eliminate surface disturbance associated with new roads within the IRA.

Table 3.15-7 Region II: BLM SDAs within 250-foot-wide Transmission Line ROW and 2-mile Transmission Line Corridor

Land Management Agency	Special Designation Area	Alternative II-A 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-B 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-C 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-D 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-E 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-F 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)
BLM White River FO	Oil Spring Mountain WSA and ACEC	N/A	0/<1 1,241	0/<1 1,241	N/A	N/A	N/A
	White River Riparian ACEC	N/A	0/0 143	0/0 143	N/A	N/A	N/A
BLM Grand Junction FO	McInnis Canyons NCA	N/A	0/0 1,925	0/0 1,925	N/A	N/A	N/A
	Badger Wash ACEC	N/A	0/0 310	0/0 310	N/A	N/A	N/A
	Demaree WSA	N/A	1/15 1,812	1/15 1,812	N/A	N/A	N/A
BLM Vernal FO	Lower Green River ACEC	N/A	N/A	N/A	1/20 1,239	N/A	1/20 1,239
	Lower Green River WSR	N/A	N/A	N/A	1/19 1,447	N/A	1/19 1,447
	Lears Canyon ACEC	N/A	N/A	N/A	0 489	N/A	0 489
	Nine Mile Canyon ACEC	N/A	N/A	N/A	0 1,453	N/A	0 1,453
Price FO	San Rafael Canyon ACEC	N/A	N/A	0/0 1,192	N/A	N/A	N/A
	Rock Art ACEC	N/A	N/A	0 123	N/A	N/A	N/A

Note: In some instances, there may be “0” miles within an SDA but some acreage of 250-foot-wide transmission line ROW disclosed. This is because the reference line (which is identified through “mileage of 250-foot-wide ROW”) does not enter the SDA; however, there is some portion of the 250-foot-wide transmission line ROW (as disclosed in acreage) that is still located within the SDA.

Table 3.15-8 Region II: USFS IRAs within 250-foot-wide Transmission Line ROW and 2-mile Transmission Line Corridor

National Forest	IRA	Alternative II-A 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-B 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-C 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-D 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-E 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-F 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)
Ashley	IRA 401009	N/A	N/A	N/A	1/11 4,113	N/A	1/11 4,113
	IRA 401010	N/A	N/A	N/A	N/A	3/133 7,601	N/A
	IRA 401011	N/A	N/A	N/A	N/A	0/36 7,630	0/0 18
	IRA 401012	N/A	N/A	N/A	N/A	N/A	0/5 734
	IRA 401013	N/A	N/A	N/A	N/A	N/A	0/0 285
Fishlake	North Pavant IRA	N/A	N/A	0/0 1,257	N/A	N/A	N/A
	Oak Creek IRA	N/A	0/0 13	N/A	N/A	N/A	0/0 13
Manti-La Sal	Boulger-Black Canyon IRA	N/A	0/0 1,414	N/A	N/A	N/A	N/A
	Cedar Knoll IRA	1/16 726	N/A	N/A	N/A	1/16 726	1/16 726
	Coal Hollow IRA	1/19 1,713	N/A	N/A	N/A	1/19 1,713	1/19 1,713
	East Mountain IRA	N/A	0/0 1,902	N/A	N/A	N/A	N/A
	Nuck Woodward IRA	N/A	N/A	N/A	0/0 51	N/A	N/A
	Oak Creek IRA	N/A	N/A	N/A	0/0 786	N/A	N/A
	Sanpitch IRA	N/A	0/0 1,262	N/A	0/0 19	0/0 19	0/0 19

Table 3.15-8 Region II: USFS IRAs within 250-foot-wide Transmission Line ROW and 2-mile Transmission Line Corridor

National Forest	IRA	Alternative II-A 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-B 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-C 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-D 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-E 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-F 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)
Uinta	IRA 418008/Chipman Creek	2/74 1,213	N/A	N/A	N/A	N/A	N/A
	IRA 418009/Willow Creek	0/0 5,605	N/A	N/A	N/A	N/A	N/A
	IRA 418015/Strawberry Ridge	0/0 8	N/A	N/A	N/A	N/A	N/A
	IRA 418016/Diamond Fork	0/0 40	N/A	N/A	N/A	0/0 29	0/0 29
	IRA 418017/Tie Fork	0/0 5,096	N/A	N/A	N/A	0/0 2,732	0/0 2,732
	IRA 418019/Soldier Summit	N/A	N/A	N/A	N/A	N/A	1/32 405
	IRA 418021/Hop Creek Ridge	0/0 4	N/A	N/A	0/0 4	0/0 4	0/0 4
	IRA 418028/Golden Ridge	0/0 980	N/A	N/A	N/A	0/0 980	0/0 980
	IRA 418029/Nephi	0/0 14	N/A	N/A	0/0 4	0/0 4	0/0 4

Note: In some instances, there may be “0” miles within an SDA but some acreage of 250-foot-wide transmission line ROW disclosed. This is because the reference line (which is identified through “mileage of 250-foot-wide ROW”) does not enter the SDA; however, there is some portion of the 250-foot-wide transmission line ROW (as disclosed in acreage) that is still located within the SDA.

Table 3.15-9 Region II: USFS URUD Areas Within 250-foot-wide Transmission Line ROW and 2-mile Transmission Line Corridor

National Forest[1]	Unroaded/Undeveloped Areas	Alternative II-A 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-B 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-C 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-D 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-E 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-F 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)
Ashley	Alkali Canyon	N/A	N/A	N/A	0/0 1,856	N/A	0/0 1,856
	Cottonwood	N/A	N/A	N/A	N/A	0/36 7,302	N/A
	First Canyon	N/A	N/A	N/A	N/A	N/A	0/0 147
	Mill Hollow	N/A	N/A	N/A	N/A	N/A	0/0 172
	Right Hand Fork	N/A	N/A	N/A	N/A	N/A	0/<1 422
	Sowers Canyon East	N/A	N/A	N/A	N/A	3/117 7,330	N/A
Fishlake	Browns Hole	N/A	N/A	7/198 5,230	N/A	N/A	N/A
	Moroni Peak	N/A	N/A	0/0 100	N/A	N/A	N/A
	Mount Terrill	N/A	N/A	0/0 984	N/A	N/A	N/A
	North Pavant	N/A	N/A	0/0 2,054	N/A	N/A	N/A
	Oak Creek	N/A	0/0 191	N/A	N/A	N/A	0/0 191
	Oak Ridge	N/A	N/A	0/0 2,655	N/A	N/A	N/A
	The Rocks	N/A	N/A	0/0 325	N/A	N/A	N/A
Manti-La Sal	Boulger-Black Canyon	N/A	0/0 875	N/A	N/A	N/A	N/A
	East Mountain	N/A	0/0 1,818	N/A	N/A	N/A	N/A

Table 3.15-9 Region II: USFS URUD Areas Within 250-foot-wide Transmission Line ROW and 2-mile Transmission Line Corridor

National Forest[1]	Unroaded/Undeveloped Areas	Alternative II-A 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-B 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-C 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-D 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-E 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)	Alternative II-F 250-foot-wide ROW (miles/acres) 2-mile corridor (acres)
Manti-La Sal (continued)	Nuck Woodward – Gentry Mountain	N/A	N/A	N/A	0/0 52	N/A	N/A
	Oak Creek	N/A	N/A	N/A	0/0 1,016	N/A	N/A
	Cedar Knoll	1/34 2,218	N/A	N/A	N/A	1/34 2,218	1/34 2,218
	Coal Hollow	1/27 1,754	N/A	N/A	N/A	1/27 1,754	1/27 1,754
	Sanpitch Mountains	1/10 66	1/35 1,617	N/A	1/11 241	1/11 66	1/11 241

[1] There are no URUD areas within the Uinta National Forest.

Note: In some instances, there may be “0” miles within an SDA but some acreage of 250-foot-wide transmission line ROW disclosed. This is because the reference line (which is identified through “mileage of 250-foot-wide ROW”) does not enter the SDA; however, there is some portion of the 250-foot-wide transmission line ROW (as disclosed in acreage) that is still located within the SDA.

Table 3.15-10 Region II: Other Federally Managed Special Designation Areas Within 250-foot-wide Transmission Line ROW and 2-mile Transmission Line Corridor

Land Management Agency	SDA	Alternative II-A	Alternative II-B	Alternative II-C	Alternative II-D	Alternative II-E	Alternative II-F
NPS	Dinosaur National Monument	0/0 3	N/A	N/A	0/0 3	0/0 3	0/0 3
BLM/NPS	Old Spanish NHT						
	Number of crossings and segment rating	0 segment crossed	4 segments crossed; 1 segment NHT II, 1 segment NHT III, 2 segments NHT V	9 segments crossed: 1 segment NHT II, 1 segment NHT III, 3 segments NHT V, and 4 segments not categorized	0 segments crossed	0 segments crossed	0 segments crossed
	Visibility of the alternative from the trail[1]	N/A	Visible along 58 miles of trail, of which 7 miles are NHT II, 6 miles are NHT III, 27 miles are NHT IV, and 18 miles are NHT V	Visible along 107 miles of trail, of which 17 miles are NHT II, 8 miles are NHT III, 31 miles are NHT IV, and 27 miles are NHT V, and 24 miles are not categorized	N/A	N/A	N/A
	Associated Historic Sites and natural features, and nearby recreation or interpretive features	N/A	N/A	N/A	N/A	N/A	N/A
	Management/Land Use	N/A	All crossing on BLM lands, within designated utility corridors	5 crossings on BLM lands within designated corridor, 4 crossings on USFS land (unevaluated)	N/A	N/A	N/A

During construction, there would be surface disturbance within the Chipman Creek IRA associated with overland travel as well as the vegetation removal and surface disturbance from the transmission line placement (up to 23 acres). TransWest would span sensitive resources (such as threatened and endangered habitat, cultural resources, wetlands, etc.; see **Appendix C** for a full list of design features) and use selective vegetation removal whenever possible to reduce resource impacts. Helicopter construction would require the use of 7-acre helicopter fly yards located every five miles along the area where helicopter construction is planned; however, it is anticipated that these would be located outside of the IRA. Application of design features in **Appendix C**, specifically the development of vegetation and noxious weed management plans to address plant removal, selective clearing, and reclamation consistent with agency permitting stipulations for soils, water, vegetation and wildlife, would also reduce impacts to habitat and wildlife throughout the area. There is no crucial winter big game habitat within the IRA. Reclamation areas would be monitored for 3 to 5 years in accordance with USFS requirements (see **Appendix D**). As a result, the limited amount of construction ground disturbance within the IRA would not impact the diversity of plants and animals within the IRA. There are no impaired streams within the IRA. TransWest would use Design Features and BMPs to reduce sedimentation to protect water resources within the IRA. All disturbance areas within the IRA would be in areas designated as roaded natural and roaded modified ROS. These types of areas are managed to allow for readily evident to moderate evidence of sights and sounds of human activity. The sights and sounds of construction would be consistent with ROS designations for this area (see Section 3.13 Recreation, for more information).

During operations, TransWest would use aircraft or non-motorized methods for maintenance and would work with the USFS to identify appropriate vegetation management techniques, control the use of the ROW, and prevent unauthorized travel along the ROW by off-road vehicles. Standard vegetation management techniques would result in a 250-foot-wide corridor of low growth plant communities ranging from 2 to 6 feet in height. Depending on the location and habitat type, this type of vegetation management could result in long term loss of wildlife habitat. The following mitigation is proposed to further reduce operational impacts:

***SDA-5**: Within IRAs and other SDAs of high scenic quality, Level 2 or Level 3 vegetation management methods would be utilized as needed to reduce impacts to wildlife habitat and reduce the level of habitat fragmentation during operations.*

Application of this mitigation would result in minimized disturbance to wildlife habitat. Level 2 vegetation management would reduce the area with 6-foot vegetation height restrictions to 90 feet wide and allow vegetation at the outside edges of the ROW to reach a maximum height of 35 feet. Level 3 vegetation management would allow increased vegetation heights anywhere within the ROW as along as vegetation does not encroach on the required minimum clearances (about 29 feet).

There are no known cultural resource sites within the Chipman Creek IRA (418008) area and no other special features or values characterizing wilderness potential present within the IRA. Impacts to any cultural resource sites would be mitigated per the PA (see Section 3.11, Cultural Resources).

Overall, the impacts associated with construction, operation, and maintenance would result in a permanent loss of acres where the Project would cross the IRA. The existing landscape character of the Chipman Creek IRA would be modified by the presence of the transmission line within the IRA. Although the route would largely parallel an existing transmission line, the existing transmission line is located outside of the Chipman Creek IRA and east of the existing road. The placement of Alternative II-A approximately 0.25 mile into the Chipman Creek IRA and away from the road would position the transmission line away from the existing man-made features that have affected wilderness character to the east. This would diminish the natural appearance and undeveloped character of a larger portion of the IRA and widen the linear corridor, as a 372-acre portion of the IRA between transmission reference line and Forest Road #335 would essentially be separated from the rest of the IRA. Within that separated acreage, a 7-acre portion would be further separated by a short, unnamed cherry-stemmed road. These areas would lose wilderness character and opportunities for solitude and primitive recreation in or near those areas, if any exist. Additionally, the 250-foot-wide transmission line ROW would cross the Forest Road #335 in a perpendicular fashion before

and after crossing the IRA. These crossings would provide opportunity for unauthorized OHV use within the IRA. Overall, these changes in the wilderness qualities would not be large enough to preclude management of the IRA as a whole; however, the manageability of the area between the transmission line and Forest Road #335 likely would be lowered. Visual impacts and proposed mitigation are discussed in greater detail in Section 3.12, Visual Resources.

Three micro-siting options have been proposed to reduce impacts to the Chipman Creek IRA:

- Strawberry IRA Micro-siting Option 1 would site the reference line and 250-foot-wide transmission line ROW approximately 0.1 mile to the west of the proposed route for Alternative II-A. Miles of reference line and acres of 250-foot-wide transmission line ROW within the IRA would remain about the same (2 miles and 71 acres). Like Alternative II-A, the 250-foot-wide transmission line ROW would cross Forest Road #335 in a perpendicular fashion at the points where it enters and leaves the IRA. This would provide opportunity for unauthorized OHV use within the IRA. Impacts to the IRA area would be similar to those described above, but would reduce the amount of area between the transmission line and Forest Road #335 to 225 acres. This area, which likely would lose wilderness character and have lower manageability, is 148 acres less than under Alternative II-A. Impacts to Forest Road #335 road are discussed in Section 3.12, Visual Resources, and Section 3.13, Recreation.
- Strawberry Micro-siting Option 2 would site the reference line and 250-foot-wide transmission line ROW approximately 0.2 mile to the west of the proposed route for Alternative II-A. Miles of reference line within the IRA would remain at about approximately 2 miles, and the acres of 250-foot-wide transmission line ROW would be reduced from 74 to 66 acres within the IRA. This would be further reduced to about 26 acres through application of roadless construction techniques. Like Alternative II-A, the 250-foot-wide transmission line ROW would cross Forest Road #335 in a perpendicular fashion at the points where it enters and leaves the IRA. However, the 250-foot-wide ROW also would be adjacent to the road for about 0.4 miles and would have two additional road crossings at about the halfway point of the 2-mile segment. This would result in more opportunity for encroachment into the IRA by OHVs than either Alternative II-A or Micro-siting Option 1 and ultimately could compromise manageability of this IRA border. Impacts to Forest Road #335 are discussed in Section 3.12, Visual Resources, and Section 3.13, Recreation.
- Strawberry IRA Micro-siting Option 3 would site the reference line and 250-foot-wide transmission line ROW approximately 0.3 mile to the west of the proposed route for Alternative II-A. This would remove the reference line and 250-foot-wide transmission line ROW from the Chipman Creek IRA entirely. The reference line would cross the road and existing transmission line near the beginning and end of this 2-mile segment and would cross Forest Road #335 three more times at about the halfway point. Selection of Micro-siting Option 3 would result in the closets consolidation of the road and transmission lines that would be visible within the IRA and affect wilderness character. Although this option would cross the road five times, all crossings would be outside of the IRA and would not provide more opportunity for encroachment into the IRA. Impacts to Forest Road #335 are discussed in Section 3.12, Visual Resources, and Section 3.13, Recreation.

The 2-mile transmission line corridor would encompass additional portions the Chipman Creek IRA, as well as portions of seven IRAs within the Upper Spanish Fork, Thistle, and Nephi MAs (approximately 12,960 acres total; see **Table 3.15-8**). Access road construction within IRAs would not be in conformance with area management plans. Application of **SDA-1** (avoidance of new road construction in SDAs) and adherence to the Roadless Rule as described in **Appendices C** and **D** would eliminate these areas from use for access roads. Roadless construction methods (as identified in the PDTR, see **Appendix D**) would be utilized to ensure compliance with the Roadless Rule. These methods include use of helicopters for tower placement, use of existing roads, and overland travel.

Within the Manti-La Sal National Forest, the 250-foot-wide transmission line ROW would cross the Coal Hollow and Cedar Knoll IRA/URUD areas. IRAs and URUD areas generally comprise the same acreage,

but there are approximately 800 acres of the Coal Hollow URUD area and 6,000 acres of the Cedar Knoll URUD area that are outside of their respective IRAs. Approximately 1 mile of the 250-foot-wide transmission line ROW would cross the 6,264-acre Coal Hollow IRA (7,094-acre URUD area) and 1 mile would cross the 22,483-acre Cedar Knoll IRA (28,349-acre URUD area). The disturbances would be located on the north and western edges of the IRA/URUD area, respectively (see **Figure 3.15-14**), leaving all but small portions (over 99.7 percent of Coal Hollow IRA/URUD area and 99.9 percent of Cedar Knoll IRA/URUD area) unfragmented and well over the requisite 5,000 acres, and with minimal effect to manageability.

Coal Hollow and Cedar Knoll IRA/URUD areas were rated as having low/medium natural integrity/appearance, low solitude and primitive recreation opportunities, and low manageability as wilderness due to previous and current land uses, sights and sounds of the trains and traffic, and OHV use (USFS unpublished). Within affected portions of these IRA/URUD areas, the transmission line generally would parallel Highway 6 and 89 and one or more existing transmission lines. Use of a full 250-foot-wide transmission line ROW would result in up to 19 acres of vegetation removal within the Coal Hollow IRA/URUD area, all of which would be located within the IRA, and 34 acres of vegetation would be removed within the Cedar Knoll URUD area, 16 of which would be located within the IRA. Roadless construction methods (as identified in the PDTR, see **Appendix D**) would be utilized within IRAs to ensure compliance with the Roadless Rule. These methods include use of helicopters for tower placement, use of existing roads, and overland travel. Application of the roadless construction techniques within IRAs would eliminate the surface disturbance associated with new roads within the IRA and reduce the ROW within the Coal Hollow and Cedar Knoll IRAs to about 8 acres and 6 acres, respectively.

During construction, there would be surface disturbance within the Coal Hollow and Cedar Knoll IRAs associated with overland travel as well as the vegetation removal and surface disturbance from the transmission line placement itself (up to 14 acres). As discussed above (see the Chipman Creek IRA), TransWest would span sensitive resources and use selective vegetation removal whenever possible to reduce resource impacts. Applicable design features such as USFS timing restrictions within crucial winter big game habitat and development of noxious weed management also would reduce impacts to habitat and wildlife throughout the area. As a result, the limited amount of construction ground disturbance within the IRAs would not impact the diversity of plants and animals within the IRAs. There are no impaired streams within the IRAs/URUD areas. TransWest would use Design Features and BMPs to reduce sedimentation to protect water resources within the IRA/URUD areas, and there would be no impact to the irrigation and community water supplies for Spanish Fork and Utah County.

Within the Coal Hollow and Cedar Knoll IRAs, approximately 25 acres of the full 250-foot-wide transmission line ROW would be located in areas designated as Semi-Primitive Motorized ROS. The sights and sounds of construction would not be fully consistent with management goals for this ROS designation (see Section 3.13 Recreation, for more information about impact to ROS areas from construction and operation of the transmission line).

Impacts from operations and maintenance would be similar to those discussed under Chipman Creek IRA and would be reduced through application of **SDA-5** (Class 2 or Class 3 vegetation maintenance options). Application of this mitigation would minimize disturbance to wildlife habitat. Level 2 vegetation management would reduce the area with 6 foot vegetation height restrictions to 90 feet wide and allow vegetation at the outside edges of the ROW to reach a maximum height of 35 feet. Level 3 vegetation management would allow increased vegetation heights anywhere within the ROW as along as vegetation does not encroach on the required minimum clearances (about 29 feet).

The placement of Alternative II-A across the edge of the IRAs would result in one 74-acre portion of the Cedar Knoll IRA and one 47-acre portion of the Coal Hollow IRA being segmented from the rest of IRAs. The existing landscape character of these areas and the adjoining portions of the IRAs would be modified by the presence of the transmission line within the IRA; however the route would parallel one or more existing transmission lines and would be located in areas where existing man-made features have already affected wilderness character. Visual impacts and proposed mitigation are discussed in greater detail in

Section 3.12, Visual Resources. There are no known cultural resources sites within either IRA and no other special features or values characterizing wilderness potential present within the IRA. Impacts to any cultural resource sites would be mitigated per the PA (see Section 3.11, Cultural Resources and Native American Concerns).

Overall, the impacts associated with construction, operation, and maintenance would result in a permanent loss of acres where the Project would cross the Coal Hollow and Cedar Knoll IRAs and would further diminish the natural appearance and undeveloped character of the outermost portion of IRAs. However, due to the location of Alternative II-A (at the edge of the IRA and in close proximity to roads and existing structures that have already comprised the wilderness characteristics of the area), it is not expected that any opportunities for solitude and primitive recreation present within the IRAs would be impacted, and any changes in the wilderness qualities would not be large enough to preclude management of the areas as IRAs and/or wilderness.

The reference line and 250-foot-wide transmission line ROW also would cross 1 mile (10 acres) of the Sanpitch URUD area. The affected acreage would be outside of the Sanpitch IRA. The crossing would be adjacent to other linear features and would be at the outermost portion of the URUD area where opportunities for primitive recreation and solitude are not present. In addition, the 2-mile transmission line corridor in which access roads or other construction support areas also could be located would encompass 3,926 acres within the Coal Hollow and Cedar Knoll URUD areas (1,439 acres of which are located within the IRAs), as well as 66 acres within the Sanpitch URUD area (see **Tables 3.15-8** and **3.15-9**). While access road construction within IRAs would not be in conformance with area management (see roadless construction techniques described above); there is no specific management restriction precluding road development in URUD areas outside of IRAs, provided the appropriate Standard and Guidelines are met. Therefore, any construction within the approximately 1,500 acres of URUD area outside of the Coal Hollow and Cedar Knoll IRAs and the 66 acres within the Sanpitch URUD area would not be required to adhere to roadless construction techniques. As a result, these areas could be subject to access road and support facility development that would result in additional surface disturbance and/or vegetation removal, with concomitant impacts to wildlife habitat, opportunities for solitude and primitive recreation, and wilderness character. The following mitigation is proposed to reduce impacts to URUD areas:

SDA-6*: Roadless construction techniques shall be applied within all portions of URUD areas located outside of IRA until the national forests have completed their LRMP revisions including IRA and/or wilderness designation decisions.*

Application of **SDA-6** would eliminate all portions of the 2-mile transmission line corridor within URUD areas from use for access roads or staging areas. This would eliminate most potential impacts to wilderness qualities except for the visual impacts described above and would allow the Manti-La Sal National Forest to continue to consider these areas for IRA and/or wilderness designation when they complete their LRMP revision.

Two micro-siting options have been proposed to reduce impacts to the Cedar Knoll IRA/URUD area:

- Cedar Knoll IRA Micro-siting Option 1 would site the reference line and 250-foot-wide transmission line ROW approximately 0.2 mile to the west of the proposed route for Alternative II-A. This would reduce the miles of reference line within the Cedar Knoll IRA to less than 0.5 mile and the acres of 250-foot-wide transmission line ROW from 34 to 12 acres within the URUD area (and from 16 acres to about 9 acres within the IRA itself, which would be further reduced to about four acres through application of roadless construction techniques). The area of the Cedar Knoll IRA that would be separated from the IRA would be reduced to 22 acres (52 acres less than under Alternative II-A) and no portion of the Coal Hollow IRA would be separated from the IRA. Impacts to the IRA/URUD area would be similar to those described above but would affect half the IRA acreage and about one third of the URUD areas impacted under Alternative II-A. Additionally, the reference line would

be located closer to existing transmission lines, consolidating manmade features affecting the character of the IRA.

- Cedar Knoll IRA Micro-siting Option 2 would site the reference line and 250-foot-wide transmission line ROW approximately 0.5 mile to the west of the proposed route for Alternative II-A. This would remove the reference and line and 250-foot-wide corridor from the Cedar Knoll IRA and URUD areas entirely. Additionally, the reference line would be located closer to existing transmission lines, further consolidating manmade features that are visible within the IRA and affecting its wilderness character.

Other Federally Managed SDAs and National Trails

Approximately 3 acres of the Dinosaur National Monument (less than 0.001 percent of the 210,000+-acre area) would be located within the 2-mile transmission line corridor. Application of **SDA-1** would eliminate impacts to the important geological and paleontological resources and native habitat within the designated area. There would be no impact to national trails.

Alternative II-B

Under Alternative II-B, the 250-foot-wide transmission line ROW would pass through the Oil Spring Mountain WSA/ACEC, the Demaree WSA, and the Sanpitch URUD area. Portions of the 2-mile transmission line corridor in which roads or construction support areas could be located also would cross one NCA, two additional ACECS, and three additional IRA/URUD areas.

BLM SDAs and National Landscape Conservation System Lands

Within the White River FO, a small portion of the 250-foot-wide transmission line ROW (less than 1 acre) would pass through the 18,260-acre Oil Spring Mountain WSA/ACEC. This would be less than 0.001 percent of the SDA. The Oil Spring Mountain WSA is a ROW exclusion area; development of the portion of the 250-foot-wide transmission line ROW within the WSA/ACEC would not be in conformance with management unless the area is released from consideration as wilderness. The reference line would not enter the WSA/ACEC, but would be located within a designated underground utility corridor west of the WSA. TransWest design features to span or compress the width of the ROW corridor would eliminate surface disturbance within the WSA; however, the visual impacts to the WSA from operation of the line would not be mitigated, and a land use plan amendment would be required to change the designated use of the utility corridor to allow overhead transmission lines. The White River FO has recommended that the WSA not be carried forward as wilderness, but instead designated as an ACEC; if released by Congress, the ACEC would be managed as a ROW avoidance area and closed to motorized vehicles to protect its relevant and important values, which include spruce-fir and biologically diverse plant communities, BLM sensitive species, and remnant vegetation associations (RVA). Approximately 1,241acres of the of the 2-mile transmission line corridor would be located within the WSA/ACEC (6.8 percent of the ACEC). The designated utility corridor would not encompass the full width of the 2-mile transmission line corridor. Application of **SDA-1** would eliminate road construction impacts to the WSA and the vegetation resources of the proposed ACEC. Impacts from overland travel and other ancillary construction areas (or road construction, if the area is released by Congress) would be minimized through design features and agency BMPs, including surveys and avoidance of special status species and RVA habitat, as well as reclamation and monitoring activities.

The 2-mile transmission line corridor would encompass portions of the White River Riparian (White River FO) and Badger Wash (Grand Junction FO) ACECs. Approximately 143 acres of the proposed 2-mile transmission line corridor would fall within the 590-acre White River Riparian ACEC. This would comprise 15 percent of the ACEC. The ACEC is a ROW avoidance area. Construction of roads within the ACEC would have potential impacts to the riparian areas and bald eagle roosts for which the ACEC was designated. All surface disturbances would be contingent upon avoidance of cottonwood communities, maintenance of utility as bald eagle habitat and properly functioning riparian community, and use of special reclamation techniques to accelerate recovery and reestablishment of habitat (BLM 1997). Adherence to

agency timing stipulations within a 0.5 mile buffer around roosts from November 15 to April 15 would minimize impacts to roosting eagles. TransWest commitments for BMPs to control erosion and sedimentation would further reduce impacts from overland construction and other disturbance. Approximately 310 acres of the proposed 2-mile transmission line corridor would fall within 1,520-acre Badger Wash ACEC. This would comprise 20 percent of the ACEC, and the area would not be within the portion of the ACEC that has been designated as a utility corridor. Application of **SDA-1**, which would restrict access to existing roads within all SDAs, would eliminate impacts to the sensitive plant species and to the portion of the ACEC used for hydrologic study and has been designated as unsuitable for public utilities.

Within the Grand Junction FO, approximately 1 mile (15 acres) of the 250-foot-wide transmission line ROW would pass through the 21,050-acre Demaree WSA. This would comprise less than 0.1 percent of the SDA. The 250-foot-wide transmission line ROW would be located within a designated utility corridor; however the corridor is located partially within the WSA, which is a ROW exclusion area. Transmission line development within the WSA would not be in conformance with WSA management. TransWest's commitment to comply with agency stipulations (TWE-1) would entail siting the 250-foot-wide transmission line ROW outside of the WSA. Approximately 1,812-acres of the 2-mile transmission line corridor would be located within the WSA (9 percent of the ACEC). The Demaree WSA is a ROW exclusion area; access road development within the WSA would not be in conformance with WSA management. Application of **SDA-1,** which would restrict access to existing roads within all SDAs, would eliminate impacts to the WSA from road construction. The BLM Grand Junction RMP has recommended that the Demaree WSA not be carried forward as wilderness because of the loss of high potential oil and gas lands and coal deposits. If the area is released from wilderness consideration, the area would be managed as part of a coal-emphasis management area and designated as a ROW sensitive area. Development of a transmission line and access roads would not be incompatible with proposed management direction. Impacts from overland travel and other ancillary construction areas (or road construction, if the area is released by Congress) would be minimized through design features and agency BMPs, including surveys and avoidance of special status species and RVA habitat, as well as reclamation and monitoring activities.

Approximately 1,925 acres of the proposed 2-mile transmission line corridor would fall within the 123,400-acre McInnis Canyons NCA. This would be approximately 2 percent of the NCA and would be entirely within a designated utility corridor. Development of roads would be consistent with area management, subject to agency constraints and BMPs to protect sensitive resources.

USFS IRAs and URUD Areas

The 250-foot-wide transmission line ROW for Alternative II-B would cross 1 mile (35 acres) of the Sanpitch URUD area. Impacts to this area would be the same as for Alternative II-A but with 25 additional acres.

Under Alternative II-B, portions of the 2-mile transmission line corridor would fall within four IRA/URUD areas. Within the Fishlake National Forest, approximately 191 acres of the proposed 2-mile transmission line corridor would fall within the Oak Creek URUD area, 13 acres of which also are within the Oak Creek IRA. Within the Manti-La Sal National Forest, the 2-mile transmission line corridor would encompass 4,578 acres of the Boulger-Black Canyon, East Mountain, and Sanpitch IRAs, and 4,294 acres of the Boulger-Black Canyon, East Mountain, and Sanpitch URUD areas. Application of **SDA-1** (avoidance of road construction in SDAs) and adherence to the Roadless Rule as described in **Appendices C** and **D** would eliminate any new road construction within the IRA. Application of **SDA-6** (application of roadless construction techniques within URUD areas; see Alternative II-A) would eliminate all portions of the 2-mile transmission line corridor within URUD areas from use for access roads or staging areas. This would eliminate potential impacts to wilderness qualities except for the visual impacts described above and would allow the Manti-La Sal National Forest to continue to consider these URUD areas for IRA and/or wilderness designation when they complete their LRMP revision. Consistency with ROS designations within the 2-mile transmission line corridor are discussed in Section 3.13, Recreation. Impacts to wildlife, vegetation, and

water resources within IRAs from roadless construction techniques are discussed under the applicable resource section.

Other Federally Managed SDAs and National Trails

Alternative II-B would not cross any SDAs managed by other federal agencies, but would cross the Old Spanish NHT four times (see **Figure 3.15-11**); twice within the Book Cliffs AU (Moab FO) and twice within the San Rafael Swell AU (Price FO). The crossings all would be located on BLM land. Alternative II-B would cross the Old Spanish NHT in the following four locations.

- Forty miles east of the town of Green River (Book Cliffs AU) and less than 3 miles west of Cisco. The crossing would be adjacent to I-70 on the north side of the highway. The segments are rated as NHT V, and do not contribute to the trail's NHT status. The crossing would be in a SQRU with a score of 9.5 (Class C). There are no associated historic sites, recreation areas, or interpretive features located near trail segments in this area. The Thompson Springs rest area would be located about 18 miles to the west of the crossing. The trail crossing would be located on BLM land within a designated utility corridor.
- One mile east of the town of Green River (Book Cliffs AU). The crossing would be adjacent to I-70 in an area where the trail parallels a frontage road to the north of the highway. There are no associated historic sites or interpretive features located near trail segments in this area. The Crescent Junction rest stop would be located about 9 miles to the west. The portion of I-70 adjacent to the segments is part of the Dinosaur Diamond Prehistoric Byway. The proposed trail crossing would be located on BLM land within a designated utility corridor. The segment is rated as NHT II, and contributes to the trail's NHT status. The crossings would be in a SQRU with a score of 11.5 (Class B).
- Two sites, approximately 7 and 8 miles north of the town of Green River (San Rafael Swell AU). The two segment of trail that would be crossed in this area are located less than 2 miles west of Highway 6, are part of The Green River Crossing to Big Flat Segment, are rated as NHT III and V, and do not contribute to the trail's NHT status. The crossings would be in SQRUs with scores of less than 7 (Class C). There are no associated historic sites, recreation areas, or interpretive features located near trail segments in this area (the watering places are located further to the north).

All trail crossing would be in compliance with the BLM Moab and Price RMP stipulations as they are located within a designated utility corridor. Towers would be placed to avoid surface disturbance near the actual trail.

Alternative II-B would be visible from the Old Spanish NHT for approximately 58 miles of the trail. Of those 58 miles, approximately 7 miles of trail (4 segments) are categorized as NHT-II; approximately 6 miles of trail segments are categorized as NHT-III; approximately 27 miles of trail segments are categorized as NHT-IV; and, approximately 18 miles are categorized as NHT-V. All segments are considered to be High Potential. Three of the 10 trail segments that are within the viewshed contribute to the trail's NHT status.

Table 3.15-11 summarizes key features of trail segments that would be in the Alternative II-B viewshed.

Table 3.15-11 Alternative II-B Viewshed Impacts by Old Spanish NHT Analysis Unit

AU	Segment Rating	Number of Segments	Contributing Status	Miles of Trail within Viewshed[1]	Total Mileage within AU	Percentage of AU within Viewshed
Book Cliffs (Moab FO; 62 miles total)	Highest rating within AU (NHT-II and exceptional)	2	1 contributing segment	6.5	11	59
	Remaining mileage (NHT-III and IV; high potential)	5	No contributing segments [2]	40	51	78

Table 3.15-11 Alternative II-B Viewshed Impacts by Old Spanish NHT Analysis Unit

AU	Segment Rating	Number of Segments	Contributing Status	Miles of Trail within Viewshed[1]	Total Mileage within AU	Percentage of AU within Viewshed
Blue Hills (Moab FO; 13 miles total)	Highest rating within AU (NHT-II; exceptional/ notable)	1	1 contributing segment	0.6	3	20
	Remaining mileage (NHT-III and IV; high potential)	2	1 contributing segment	0.7	10	7
San Rafael Swell (Price FO; 58 miles total)	Highest rating within AU (NHT-II; notable)	1	1 contributing segment	0.2	15	1
	Remaining mileage (NHT III, IV-VI; high potential)	3	No contributing segments	11	43	16

[1] Visibility of Alternative II-B from the historic trail is based on the 5-mile viewshed.

[2] Two segments not evaluated.

Within the Moab FO, Alternative II-B would have impacts within the Book Cliffs and Blue Hills AUs. Within the Book Cliffs AU, selection of Alternative II-B would result in visual impacts to about 47 miles (75 percent) of the 62 miles of inventoried trail within the AU. This includes 6.5 miles of trail that is rated as NHT-II/Exceptional (59 percent of the highest rated mileage within the AU). The remaining 40 miles of inventoried trail within the viewshed comprises trail segments that are considered to be High Potential. Affected mileage constitutes 78 percent of High Potential segments within the AU. Two of the 7 trail segments within the viewshed contribute to the trail's NHT status.

The far eastern portion of the Book Cliffs AU, which currently has a scenic rating of 14 (Class B), would not be in the transmission line viewshed.

The central and western portions of the Book Cliffs AU would be in the transmission line viewshed. Within the central portion, the integrity of historic setting of the trail is already diminished where it is adjacent to I-70 and railroad features, and there are no associated historic sites located near affected trail segments in this area (AECOM 2012) The SQRU rating of Class C in this portion of the AU would not change if Alternative II-B were to be constructed.

The western portion of Book Cliffs AU is located along I-70 west of Highway 191. Integrity of historic setting is retained in the west sections of this AU (especially along the northern portion) and scenic quality is average (Class B, with an SQRU score of 11.5), resulting in an overall rating of SI in northern segment. Selection of Alternative II-B would result in a 4 point reduction in the SQRU score, resulting in a reduction of scenic quality (to Class C, with a score of 7.5) in this portion of the AU. The overall rating of trail segments in this portion of the AU (which is currently SI) would be reduced to an SII.

Recreationally important landscapes within the Book Cliffs AU include the Cisco Desert area and the Green River area. Several recreation areas (the Thompson Springs rest stop, the hiking trail near Thompson Springs, the Crescent Junction rest stop, portions of the Dinosaur Diamond Prehistoric Byway and northernmost portions of the Labyrinth Canyon SRMA) would be within immediate foreground (0.0 to 0.5-mile) visibility of the transmission line. Impacts would not be mitigated by transmission line siting adjustments within the 2-mile transmission line corridor because the transmission line would still parallel the trail. None of these recreational areas currently offer interpretive materials related to the Old Spanish NHT.

Within the Blue Hills AU, selection of Alternative II-B would result in visual impacts to about 1 mile (10 percent) of the 13 miles of inventoried trail within the AU. This would include 0.6 mile of trail that is rated as NHT-II/Exceptional-Notable (20 percent of the highest rated mileage within the AU). The remaining affected mileage would be comprised of trail segments that are considered to be High Potential. Affected mileage would constitute 7 percent of High Potential segments within the AU. Two of the three trail segments within the viewshed contribute to the NHT status of the trail.

There are no associated historic sites located near affected trail segments in this area. The transmission line would be visible in the portions of the AU closest to the I-70 corridor; however, the scenic quality classification (Class B) would not change. Two nearby recreation areas (the northern edge of the Labyrinth Canyon SRMA and portions of the Dinosaur Diamond Prehistoric Byway) would be within immediate foreground (0.0 to 0.5-mile) visibility of the transmission line. Neither of these areas currently offer interpretive materials related to the Old Spanish NHT. Impacts would not be mitigated by transmission line siting adjustments within the 2-mile transmission line corridor because the transmission line would still be within the viewshed of this portion of the AU.

Within the Price FO, selection of Alternative II-B would result in visual impacts to about 11 miles (20 percent) of the 58 miles of inventoried trail within the AU. This includes 0.2 mile of trail that is rated as NHT-II/Notable (1 percent of the highest rated mileage within the AU). The remaining affected mileage would be comprised of trail segments that are considered to be High Potential. Affected mileage constitutes 16 percent of High Potential segments within the AU. One of the four trail segments within the viewshed contributes to the trail's NHT status. Impacts would be confined to segments closest to the Highway 6 corridor. This includes some of the higher rated trail segments within the Price FO, but would not include nearby associated historic sites, and current scenic quality classifications (Class B) would not change. Relocation of the transmission line to the easternmost portion of the 2-mile transmission line corridor could result in fewer visual impacts to these trail segments.

Once the final route is selected, an intensive Class III inventory and in-depth visual analysis would be conducted to determine the impact to contributing Old Spanish NHT segments crossed by the route or from which the route would be visible. If a contributing segment would be adversely affected, the effects would be minimized or mitigated onsite or offsite as stipulated in the Cultural Resources PA developed for the Project and through implementation of design features and BMPs in concert with the Trail Study Agency and the Wyoming BLM National Trails Management Program Lead. Mitigation identified in Section 3.12, Visual Resources includes measures to reduce visual impacts through the use of BLM environmental colors and location of structures, roads, and other project elements as far back from road, trail, and river crossings as possible, and, where feasible, employ terrain and vegetation to screen views from crossings.

<u>Alternative II-C</u>

Under Alternative II-C, the 250-foot-wide transmission line ROW would pass through the Oil Spring Mountain WSA/ACEC, the Demaree WSA, and the Browns Hole URUD area. Portions of the 2-mile transmission line corridor in which roads or construction support areas could be located also would cross one NCA, four additional ACECS, and five additional IRA/URUD areas.

BLM SDAs and National Landscape Conservation System Lands

Under Alternative II-C, the 250-foot-wide transmission line ROW would pass through the Demaree WSA and Oil Spring Mountain WSA/ACEC). Impacts to each of the SDAs would be the same as discussed under Alternative II-B and would be mitigated by application of **SDA-1**.

The 2-mile transmission line corridor would encompass portions of the McInnis Canyons NCA; and the White River Riparian, Badger Wash, San Rafael Canyon ACECs; and the Dry Wash/Molen Seep units of the Rock Art ACEC. Impacts to the McInnis Canyons NCA, the White River Riparian ACEC, and Badger Wash ACEC would be the same as under Alternative II-B.

Within the Price FO, portions of the 2-mile transmission line corridor would pass through the San Rafael Canyon ACEC and the Dry Wash and Molen Seep units of the Rock Art ACEC.

Within the Price FO, approximately 1,192 acres of the proposed 2-mile transmission line corridor would fall within the 15,200 San Rafael Canyon ACEC. This would comprise about 8 percent of the ACEC (the 250-foot-wide transmission line ROW would be co-located with existing steel lattice transmission lines

outside of the ACEC and would comply with BLM VRM for the area; see Section 3.12, Visual Resources). The ACEC is designated for scenic values and managed as a ROW avoidance area, excluded from land treatments unless used to protect or improve riparian values. OHV use is limited to designated roads. TransWest commitments to avoid riparian areas would reduce impacts to ACEC values; however the development of roads would reduce the scenic qualities for which the ACEC was designated. Application of **SDA-1** would eliminate these impacts. If road development could not be avoided within the full 1,192 acres, application of **SDA-2** (full reclamation of roads) would reduce the long term impacts of road development. Portions of the 2-mile transmission line corridor would also pass through the Dry Wash and Molen Seep units of the Rock Art ACEC. The Rock Art ACEC is a regionally important area with some of the best examples of prehistoric rock art in the Colorado Plateau. The ACEC is managed to protect cultural resource values and is designated as a ROW exclusion area outside of designated utility corridors. Approximately 143 acres of the proposed 2-mile transmission line corridor would be located within the 1,137-acre Dry Wash unit; and the 2-mile transmission line corridor would encompass the entire 634-acre Molen Seep unit. These areas would not be located within existing utility corridors. Development of roads would not be in conformance with area management objectives and could result in destruction of cultural resources as well as increased vandalism due to increased access. Application of **SDA-1** would eliminate these impacts.

USFS IRAS and URUD Areas

Within the Fishlake National Forest, approximately 7 miles of the 250-foot-wide transmission line ROW would cross the 8,212-acre Browns Hole URUD area. Use of a full 250-foot-wide transmission line ROW would result in up to 198 acres of vegetation removal within the URUD (2 percent of the 8,212-acre URUD). There is no specific management restriction precluding road development in URUD areas outside of IRAs, provided the appropriate Standard and Guidelines are met. As a result, these areas could be subject to access road and support facility development that would result in surface disturbance and/or vegetation removal within the 198-acre area, with concomitant impacts to wildlife habitat, opportunities for solitude and primitive recreation, and wilderness character. There would be 5,230 acres of the URUD area within the 2-mile transmission line corridor. These areas also could be used for access road and construction staging areas and represent the general area in which noise and human activity could affect wildlife or opportunities for solitude.

Within the Browns Hole URUD area, natural integrity has been affected by fire suppression, invasive species, and overgrazing; undeveloped character has been affected from roads and motorized routes. There are opportunities for primitive recreation, but not necessarily solitude due to the relatively small size of the URUD area and motorized routes and sights and sounds of Fishlake Basin. Manageability is affected by cherry-stemmed roads and motorized trails. Overall, the impacts associated with construction, operation, and maintenance would result in a permanent loss of acreage where the 250-foot-wide transmission line ROW would cross the URUD area and where access roads and staging areas would be located. The reference line would pass through the middle of the URUD area, essentially bisecting it into two URUD areas that are both less than the requisite 5,000 acres, further affecting the ability of this area to be managed as potential IRA or wilderness area. Additionally, the location of the transmission line would diminish the natural appearance and undeveloped character of a large portion of the URUD area due to its location in the center of the URUD area.

Application of **SDA-6** (application of roadless construction techniques within URUD areas; see Alternative II-A) would reduce the width of the ROW to less than 100 feet. This would reduce the area of potential surface impact to about 79 acres. Application of **SDA-6** also would eliminate all portions of the 2-mile transmission line corridor within the URUD area from use for access roads or staging areas. This would reduce impacts to wilderness qualities; however, the placement of the transmission line in the middle of this small URUD area would still result in adverse impacts to the natural integrity/appearance and opportunities for solitude and primitive recreation over a large part of the URUD area and would further lower the manageability of this area.

Portions of the 2-mile transmission line corridor would fall within five additional IRA/URUD areas. Within the Fishlake National Forest, approximately 2,050 acres of the 2-mile transmission line corridor would fall within the North Pavant URUD area, 1,257 acres of which are also within the North Pavant IRA. The 2-mile transmission line corridor would encompass 4,064 acres of the Moroni Peak, Mount Terrill, Oak Ridge, and The Rocks URUD areas. None of this acreage is within an IRA. Application of **SDA-1** and adherence to the Roadless Rule as described in the **Appendices C** and **D** would eliminate any new road construction within the North Pavant IRA. Application of **SDA-6** (application of roadless construction techniques within URUD areas, see Alternative II-A) would eliminate all portions of the 2-mile transmission line corridor within URUD areas from use for access roads or staging areas. Consistency with ROS designations within the 2-mile transmission line corridor are discussed in Section 3.13, Recreation.

Other Federally Managed SDAs and National Trails

Alternative II-C would not cross any SDAs managed by other federal agencies but would cross the Old Spanish NHT a total of nine times; five times on BLM lands (twice within the Book Cliffs AU and three times within the San Rafael Swell AU); and four times on NFS lands within the Manti La Sal National Forest.

The two Book Cliffs AU crossings and two of the three San Rafael Swell AU crossings would be the same as under Alternative II-B. Impacts would be identical to those identified under Alternative II-B. The third crossing within the San Rafael Swell AU would be located 14 miles east of Castle Dale and adjacent to CR 401. The proposed trail crossing would be located on BLM land and would be within a designated utility corridor. The trail segment that would be crossed is rated as NHT-V and does not contribute to the trail's NHT status. Towers would be placed to avoid surface disturbance near the actual trail.

Alternative II-C also would cross trail segments within the Fishlake National Forest. These crossings would be located south of I-70 about 20 miles southwest of Salina, near the Gooseberry/Fremont Rd. Scenic Backway. These segments were not evaluated as part of the 2012 NHT Inventory Report for NHT Condition Category, scenic quality, or overall setting.

Alternative II-C would be visible from the Old Spanish NHT for approximately 107 miles of the trail. Of those 107 miles, approximately 17 miles of trail segments are categorized at NHT II; approximately 8 miles of trail segments are categorized at NHT III; approximately 31 miles of trail segments are categorized as NHT IV; and, approximately 27 miles are categorized at NHT V. There would also be 24 miles within the Manti- La Sal National Forest that are unevaluated. **Table 3.15-12** summarizes key features of trail segments that would be in the Alternative II-C viewshed.

Table 3.15-12 Alternative II-C Viewshed Impacts by Old Spanish NHT Analysis Unit

AU (Location)	Segment Rating	Number of Segments	Contributing Status	Miles of Trail within Viewshed[1]	Total Mileage within AU	Percentage of AU within viewshed
Book Cliffs (Moab FO; 62 miles total)	Highest rating within AU (NHT-II; exceptional)	2	1 contributing segment	6.5	11	59
	Remaining mileage	5	No contributing segments[2]	40	51	78
Blue Hills (Moab FO; 13 miles total)	Highest rating within AU (NHT-II; exceptional)	1	1 contributing segment	0.6	3	20
	Remaining mileage	2	1 contributing segment	0.7	10	7
San Rafael Swell (Price FO; 58 miles total)	Highest rating within AU (NHT-II; notable)	1	1 contributing segment	10	15	67
	Remaining mileage	4	No contributing segments	26	43	60
Fishlake National Forest/Private	N/A	N/A	Unknown	24	N/A	N/A

[1] Visibility of Alternative II-B from the historic trail is based on the 5-mile viewshed.

[2] Two segments not evaluated

Within the Moab FO, selection of Alternative II-C would result in the same viewshed impacts to the Book Cliffs and Blue Hills AUs as under Alternative II-B.

Within the Price FO, selection of Alternative II-C would result in viewshed impacts to about 36 miles (62 percent) of the 58 miles of inventoried trail within the San Rafael Swell AU. This would include 10 miles of trail that is rated as NHT-II/Notable (67 percent of the highest rated mileage within the AU). The remaining 26 miles comprises trail segments that are considered to be High Potential. Affected mileage constitutes 60 percent of High Potential segments within the AU. One of the five trail segments within the viewshed contributes to the overall trail's NHT status. Impacts would be confined to segments closest to the Highway 6 corridor. There are no associated historic sites located near affected trail segments in this area and the current scenic quality classifications (Class C) would not change.

Alternative II-C generally would parallel an existing transmission line in portions of the San Rafael Swell AU specific to Alternative II-C. Recreationally important landscapes include the Wedge Overlook, and the Little Cedar Mountain Recreation Area. The Wedge Road visitor station and the Little Cedar Mountain Recreation Area would be about 3 miles to the west of the trail crossing. Portions of the San Rafael Swell and Wedge Overlook/Buckhorn Dr. Scenic Backway would be within the immediate foreground (0.0 to 0.5-mile) visibility of the transmission line. None of these areas currently offer interpretive materials related to the Old Spanish NHT. Impacts would not be mitigated by transmission line siting adjustments within the 2-mile transmission line corridor because the transmission line would still be within the viewshed of this portion of the AU.

Within the Fishlake National Forest, Alternative II-C would be within the viewshed of 24 miles of unrated trail. There are no associated historic sites located near affected trail segments in this area. One recreational area that would be near or within the viewshed would be the Gooseberry/Fremont Road Scenic Backway. No scenic quality ratings are available for this area, but adjacent BLM SQRUs are rated as Class C. Impacts would not be mitigated by transmission line siting adjustments within the 2-mile transmission line corridor because the transmission line would still cross the trail at some point.

Once the final route is selected, an intensive Class III inventory and in-depth visual analysis would be conducted to determine the impact to contributing Old Spanish Trail segments crossed by the route or from which the route would be visible. If a contributing segment would be adversely affected, the effects would be minimized or mitigated onsite or offsite as stipulated in the Cultural Resources PA developed for the Project and through implementation of design features and BMPs in concert with the Trail Study Agency and the Wyoming BLM National Trails Management Program Lead. Mitigation identified in Section 3. 12, Visual Resources includes measures to reduce visual impacts through use of BLM environmental colors and location of structures, roads, and other project elements as far back from road, trail, and river crossings as possible, and where feasible, employ terrain and vegetation to screen views from crossings.

Alternative II-D

Under Alternative II-D, the 250-foot-wide transmission line ROW would pass through the Lower Green River ACEC, Lower Green River WSR, a portion of one IRA within the Ashley National Forest, and the Sanpitch URUD area in the Manti-LaSal National Forest. Portions of the 2-mile transmission line corridor in which roads or construction support areas could be located would cross two additional ACECS, one national monument, and six additional IRA/URUD areas.

BLM SDAs and National Landscape Conservation System Lands

Within the Vernal FO, approximately 1 mile of the 250-foot-wide transmission line ROW would cross the 8,470-acre Lower Green River ACEC. The area is managed as a ROW avoidance area for protection of riparian and special status species habitat and scenic values. During construction, up to 20 acres (0.3 percent of the ACEC) would be subject to vegetation removal and/or surface disturbance that could affect special status species habitat and scenic values. Agency buffers and TransWest's commitment to avoid riparian areas and special status species habitat would reduce impacts to riparian and special status plant species values; soil and water BMPs would reduce sedimentation that could affect special status

species fish. Visual impacts from a transmission line would not be in conformance with SDA management as Class II VRM (see Section 3.12 for more discussion about impacts to visual resources). Access roads and construction staging areas also could be constructed within the 1,239-acre portion of the 2-mile transmission line corridor located within the ACEC, further expanding the area potentially affected by vegetation removal and surface disturbance to approximately 15 percent of the ACEC. Application of **SDA-1** would eliminate these impacts. If road development could not be avoided within the full 1,239 acres, application of **SDA-2** (full reclamation of roads) would reduce the long term impacts of road development; however, the visual impacts from operation of the transmission line would be a permanent impact to the high value scenery of the ACEC.

Approximately 1 mile (19 acres) of the 250-foot-wide transmission line ROW would cross a 30-mile segment of the lower Green River. This segment is suitable for wild and scenic river designation (as “scenic”) and is also designated as a Class II VRM. The visual impacts from a transmission line would not be in conformance with SDA management as Class I and II VRM and would not be consistent with the criteria for a “scenic” designation (largely primitive and undeveloped, no substantial evidence of human activity, etc.). A one-time exception would be needed to change the VRM class to VRM III. Section 3.12, Visual Resources, provides additional information regarding the visual impacts to this area. Approximately 1,447-acres of the of the 2-mile transmission line corridor would be located within the 11,968 WSR area (12 percent of the suitable area). Application of **SDA-1** would eliminate road construction impacts to the WSR; however, the visual impacts from operation of the line would not be mitigated.

Approximately 489 acres of the proposed 2-mile transmission line corridor would fall within the 1,377-acre Lears Canyon ACEC. This would comprise about 35 percent of the ACEC. Lears Canyon is managed as a ROW avoidance area for protection of relict vegetation; it is closed to motorized travel and managed as VRM II. Application of **SDA-1** would eliminate road construction impacts to the ACEC. If road development could not be avoided within the full 489 acres, agency avoidance buffers and TransWest commitments for key species habitat avoidance would reduce the impacts of road development on the plant habitat for which the ACEC was designated.

Approximately 1,453 acres of the proposed 2-mile transmission line corridor would fall within the 74,302-acre Nine Mile Canyon ACEC. This would comprise about 2 percent of the ACEC, which is managed as a ROW avoidance area for protection of cultural resources and special status species. The corridor would be located above the rim of the canyon, which is managed as VRM III. Application of **SDA-1** would eliminate potential impacts to cultural resources within the ACEC. If road development could not be avoided within the full 1,453 acres, impacts to cultural resources would be mitigated through compliance with the draft PA. The Agency avoidance buffer and TransWest commitments for special status species habitat avoidance would reduce the impacts of road development on the plant habitat for which the ACEC was designated.

USFS IRAs and Unroaded/Undeveloped Areas

Within the Ashley National Forest, approximately 1 mile of the 250-foot-wide transmission line ROW would cross the 30,356-acre IRA 401009. This IRA has been rated as having moderate natural integrity/ appearance, some opportunities solitude and primitive recreation but less desirable due to terrain and excluded roads, no special features, and difficult to manage as wilderness (USFS 2008).

Use of a full 250-foot-wide transmission line ROW would result in up to 11 acres of vegetation removal within the IRA 401009 (less than 0.1 percent of the 9,349-acre IRA). The disturbances would be located on the southern edge of the IRA, along the tops of the southern plateaus (see **Figure 3.15-13**). There are several existing USFS roads in this portion of the IRA. Roadless construction methods (as identified in the PDTR, see **Appendix D**) would reduce the 250-foot-wide transmission line ROW to 100 feet (12 acres) and eliminate surface disturbance associated with new roads within the IRA. Manageability of IRA 401009 as a designated roadless area currently is rated as somewhat difficult due to edge effects, such as the presence of existing roads (see **Appendix H**). Placement of the transmission line along an area with existing access

roads would increase linear intrusions into the IRA, further lowering manageability. However, over 99 percent of the IRA would remain unfragmented and well over the requisite 5,000 acres.

IRA 401009 provides high value winter range for deer and elk, summer habitat for pronghorn, big game migration corridors, and contains greater sage-grouse broodrearing, occupied, and winter habitat. TransWest would be required to maintain agency-stipulated wildlife buffers and timing restrictions and would span sensitive resources such as threatened and endangered species habitat, cultural resources, wetlands, etc. (see **Appendix C** for a full list of design features). TransWest also would use selective vegetation removal whenever possible to reduce resource impacts. Helicopter construction would require the use of 7-acre helicopter fly yards located every five miles along the area where helicopter construction is planned; however, it is anticipated that these would be located outside of the IRA. Application of design features in **Appendix C**, specifically the development of vegetation and noxious weed management plans to address plant removal, selective clearing, and reclamation consistent with agency permitting stipulations for soils, water, vegetation and wildlife, also would reduce impacts to habitat and wildlife throughout the area. Reclamation areas would be monitored for 3 to 5 years in accordance with USFS requirements (see **Appendix D**). As a result, the limited amount of construction ground disturbance within IRA 401009 would not impact the diversity of plants and animals within the IRA. There are no impaired streams within the IRA. Water contributes to the Duchesne River instream flows and supplies spring and pond water for grazing. TransWest would use design features and BMPs to reduce sedimentation to protect water resources within the IRA.

Impacts to the IRA from transmission line operation would be similar to those described under Alternative II-A, and would be reduced through application of **SDA-4** (Class 2 or Class 3 vegetation maintenance options).

The existing landscape character of the IRA would be modified by the presence of the transmission line within the IRA; however, the route would be located in areas where existing man-made features such as grazing, vegetation treatments; oil and gas, and motorized activities have already affected wilderness character. Visual impacts and proposed mitigation are discussed in greater detail in Section 3.12. The IRA contains prehistoric sites show features that may be vision quest or ceremonial sites with religious or traditional cultural property significance. Impacts to any cultural resource sites would be mitigated per the PA (see Section 3.11, Cultural Resources). One acre of the full 250-foot-wide transmission line ROW located within the IRA would be within Semi-Primitive Motorized ROS areas. The sights and sounds of construction would not be fully consistent with management goals for this ROS designation (see Section 3.13, Recreation, for more information about impact to ROS areas from construction and operation of the transmission line).

Overall, the impacts associated with construction, operation, and maintenance would result in a permanent loss of acres where the Project would cross the IRA, which would diminish the natural appearance and undeveloped character of the westernmost portion of IRA #401009, However, the wilderness characteristics of the area have already been affected by existing man-made features present in the area, opportunities for solitude and primitive recreation are primarily in other portions of the IRA and changes in the wilderness qualities would not be large enough to preclude management of the majority of the area as an IRA and/or wilderness.

The 250-foot-wide transmission line ROW for Alternative II-D would cross 1 mile (11 acres) of the Sanpitch URUD area. Impacts to this area would be the same as for Alternative I-A.

Within the Ashley National Forest, the 2-mile transmission line corridor in which access roads or other construction support areas also could be located would encompass 4,113 acres of the IRA #401009, and 1,856 acres within the Alkali Canyon URUD area (which partially overlaps IRA #401009). Within the Manti-LaSal National Forest, the 2-mile transmission line corridor would encompass portions of the Nuck Woodward IRA/Nuck Woodward – Gentry Mountain URUD area, and the Oak Creek and Sanpitch IRA/URUD areas); within the Uinta National Forest, the 2-mile transmission line corridor would encompass

portions of the Hop Creek Ridge and Nephi IRAs (see **Table 3.15-8** and **Table 3.15-9**). Application of **SDA-1** (avoidance of road construction in SDAs) and adherence to the Roadless Rule as described in **Appendices C** and **D** would eliminate any new road construction within the IRA. Application of **SDA-5** (application of roadless construction techniques within URUD areas; see Alternative II-A) would eliminate all portions of the 2-mile transmission line corridor within URUD areas from use for access roads or staging areas. This would eliminate most potential impacts to wilderness qualities except for the visual impacts described above and would allow the Ashley National Forest to continue to consider these URUD areas for IRA and/or wilderness designation when they complete their LRMP revision.

Other Federally Managed SDAs and National Trails

Approximately 3 acres of the Dinosaur National Monument (less than 0.001 percent of the 210,000+-acre area) would be located within the 2-mile transmission line corridor. Application **of SDA-1** would eliminate impacts to the important geological and paleontological resources and native habitat within the designated area. There would be no impact to National Trails.

Alternative II-E

Under Alternative II-E, the 250-foot-wide transmission line ROW would cross approximately 8 miles of 5 IRAs/URUD areas located in 2 national forests. Portions of the 2-mile transmission line corridor in which roads or construction support areas could be located would cross 5 additional IRAs and 1 national monument.

BLM SDAs and National Landscape Conservation System Lands

Alternative II-E would not cross any lands within the National Landscape Conservation System (NCAs, WAs and WSAs, or WSRs), or BLM-designated ACECs.

USFS IRAs and URUD Areas

Under Alternative II-E, the 250-foot-wide transmission line ROW would cross approximately 8 miles of 5 IRA/URUD areas located in 2 national forests.

Within the Manti-La Sal National Forest, the 250-foot-wide transmission line ROW would cross 1 mile of the Cedar Knoll IRA/URUD area, 1 mile of the Coal Hollow IRA/URUD area, and 1 mile of the Sanpitch URUD area (but not the Sanpitch IRA). Additional portions of the 2-mile transmission corridor would also be located within the three IRA/URUDs (including the Sanpitch IRA). Construction and operation impacts to the Cedar Knoll, Coal Hollow IRA/URUD areas and the Sanpitch URUD area would be the same as those described under Alternative II-A, including the potential for two micro-siting options within the Cedar Knoll IRA/URUD area. Construction and operation impacts to the Sanpitch IRA area would be the same as those described under Alternative II-A.

Within the Ashley National Forest, the 250-foot-wide transmission line ROW would be located within an approximately 15-mile long, narrow canyon (Sowers Canyon) between IRA #401010/Sowers Canyon East URUD (to the east) and IRA #401011/Cottonwood Canyon URUD (to the west). The reference line and 250-foot-wide transmission line ROW would cross 3 miles of IRA 401010 (see **Figure 3.15-13**); the 250-foot-wide transmission line ROW (but not the reference line) would also encompass portion of IRA 401011. The route would follow an existing transmission line and a creek for the entire distance; a cherry stem road originating from the north also would be adjacent to the route for all but about 3 miles. The existing transmission line would not be within a designated utility corridor or window; the route was considered and recommended for designation during preparation of the forest management plan, but was never formally designated.

Both the IRA #401010/Sowers Canyon East URUD area and the IRA #401011/Cottonwood Canyon URUD area were rated has having moderate natural integrity/appearance due to grazing and vegetation treatment; oil and gas, and motorized activities; good opportunities for solitude and primitive recreation areas but only

outside of the boundary and excluded roads such as Sowers Canyon Road; no special features; and difficult to manage as wilderness. The disturbances would be located western and eastern edges of IRA #401010 and IRA #40101, respectively (see **Figure 3.15-12**), keeping over 99.9 percent of the IRA and URUD area unfragmented and well over the requisite 5,000 acres. Impacts to manageability would be minimal in that the area is already difficult to manage due to the presence of existing linear facilities (Sowers Canyon Road and the existing transmission line).

Use of a full 250-foot-wide transmission line ROW would result in up to 133 acres of vegetation removal within the IRA #401010 (117 acres of which would also be within the Sowers Canyon East URUD area) and 36 acres within the IRA #401011/Cottonwood Canyon URUD area. Roadless construction methods (as identified in the PDTR, see **Appendix D**) would be utilized within IRAs to ensure compliance with the Roadless Rule. These include use of helicopters for tower placement, use of existing roads, and overland travel. Application of the roadless construction techniques would reduce the ROW within the IRA #401010 and IRA #401011 to about 67 acres and would eliminate the surface disturbance associated with new roads. However, requisite separation distances from the existing transmission line could result in the 250-foot-wide transmission line ROW being located on steeper side slopes, resulting in increased potential for erosion and sedimentation. There is one impaired stream that would be located near the 250-foot-wide transmission line ROW (Sowers Creek). Water contributes to the Duchesne River instream flows and supplies spring and pond water for grazing. TransWest would use Design Features and BMPs to reduce sedimentation to protect water resources within the IRA.

Both IRA/URUD areas provide high value winter range for deer and elk, summer habitat for pronghorn, big game migration corridors, and contain Greater sage grouse broodrearing, occupied, and winter habitat. TransWest would be required to maintain agency-stipulated wildlife buffers and timing restrictions and would span sensitive resources (such as threatened and endangered species habitat, cultural resources, wetlands, etc.; see **Appendix C** for a full list of design features). TransWest also would use selective vegetation removal whenever possible to reduce resource impacts. Helicopter construction would require the use of 7-acre helicopter fly yards located every five miles along the area where helicopter construction is planned; however, it is anticipated that these would be located outside of the IRA. Application of design features in **Appendix C**, specifically the development of vegetation and noxious weed management plans to address plant removal, selective clearing, and reclamation consistent with agency permitting stipulations for soils, water, vegetation and wildlife, would also reduce impacts to habitat and wildlife throughout the area. Reclamation areas would be monitored for 3 to 5 years in accordance with USFS requirements (see **Appendix D**). As a result, the limited amount of construction ground disturbance within the IRA would not impact the diversity of plants and animals within the IRA.

Impacts to the IRA #401010 and IRA #401011 from transmission line operation would be similar to those described under Alternative II-A, and would be reduced through application of **SDA-4** (Class 2 or Class 3 vegetation maintenance options).

The existing landscape character of the IRAs would be modified by the presence of the transmission line; however, the route would be located in areas where existing man-made features such as linear facilities, grazing, vegetation treatments, oil and gas, and motorized activities have already affected wilderness character. Visual impacts and proposed mitigation are discussed in greater detail in Section 3.12, Visual Resources.

Cultural surveys within the IRA show both historic and prehistoric activity in the area. Impacts to any cultural resource sites would be mitigated per the PA (see Section 3.11, Cultural Resources and Native American Concerns). Within the IRA/URUD areas, the 250-foot-wide transmission line ROW would be fully in areas designated as roaded natural ROS. These types of areas are managed to allow for readily evident to moderate evidence of sights and sounds of human activity. The sights and sounds of construction would be consistent with ROS designations for this area (see Section 3.13 Recreation, for more information; visual impacts to IRAs from construction of the transmission line are discussed in Section 3.12).

Overall, the impacts associated with construction, operation, and maintenance would result in a permanent loss of acres where the Project would cross the IRAs that would diminish the natural appearance and undeveloped character of the edges of IRA #401010/Sowers Canyon East URUD area and IRA #401011/Cottonwood Canyon URUD area. However, the wilderness characteristics of the area have already been affected by existing man-made features and linear facilities present in the area, and opportunities for solitude and primitive recreation are primarily in other portions of the IRA. Any changes in the wilderness qualities would not be large enough to preclude management of the overall area as an IRA and/or wilderness beyond existing conditions.

The 2-mile transmission line corridor would encompass additional portions of IRA #401010/Sowers Canyon East URUD area, IRA #401011/Cottonwood Canyon URUD area, as well as portions of five IRAs within the Uinta National Forest (see **Table 3.15-8** through **3.15-9**). Access road construction within IRAs would not be in conformance with area management plans. Application of **SDA-1** (avoidance of new road construction in SDAs) and adherence to the Roadless Rule as described in **Appendices C** and **D** would eliminate IRAs from use for access roads. Roadless construction methods (as identified in the PDTR, see **Appendix D**) would be utilized to ensure compliance with the Roadless Rule. These methods include use of helicopters for tower placement, use of existing roads, and overland travel. Application of **SDA-6** (application of roadless construction techniques within URUD areas; see Alternative II-A) would eliminate all portions of the 2-mile transmission line corridor within URUD areas from use for access roads or staging areas. This would eliminate most potential impacts to wilderness qualities except for the visual impacts described above, and it would allow the Ashley National Forest to continue to consider these URUD areas for IRA and/or wilderness designation when they complete their LRMP revision. Consistency with ROS designations within the 2-mile transmission line corridor are discussed in Section 3.13, Recreation. Impacts to wildlife, vegetation, and water resources within IRAs from roadless construction techniques are discussed under the applicable resource sections.

Other Federally managed SDAs

Impacts to the Dinosaur National Monument would be the same as under Alternative II-D.

Alternative II-F (Agency Preferred)

Under Alternative II-F, the 250-foot-wide transmission line ROW would pass through the Lower Green River ACEC, Lower Green River WSR, two IRA/URUD areas within the Ashley National Forest, three IRA/URUD areas within the Manti-La Sal National Forest, and one IR in the Uinta National Forest. Portions of the 2-mile transmission line corridor also would cross two additional ACECs, two additional IRA/URUD areas within the Ashley National Forest, one additional IRA/URUD within the Fishlake National Forest, and five additional IRAs within the Uinta National Forest. Impacts are discussed below.

BLM SDAs and National Landscape Conservation System Lands

Portions of the reference line, 250-foot-wide transmission line ROW, and 2-mile transmission line corridor in which roads or construction support areas could be located would cross the Lower Green River ACEC, Lower Green River WSR, Lears Canyon ACEC, and Nine Mile Canyon ACEC. Impacts to each of these areas would be the same as under Alternative II-D.

USFS IRAs and Unroaded/Undeveloped Areas

Within the Ashley National Forest, impacts to IRA #401009/Alkali Canyon URUD area would be the same as under Alternative II-C. Within the Ashley National Forest, the 2-mile transmission line corridor in which access roads or other construction support areas also could be located would encompass acreage within IRA #401011, IRA #401012/First Canyon and Right Fork Indian Canyon URUD areas and IRA #401013/Mill Hollow URUD area (see **Tables 3.15-8** and **3.15-9**). Application of **SDA-1** (avoidance of road construction in SDAs) and adherence to the Roadless Rule as described in **Appendices C** and **D** would eliminate any new road construction within IRAs. Application of **SDA-5** (application of roadless construction techniques within URUD areas; see Alternative II-A) would eliminate all portions of the 2-mile transmission line corridor within

URUD areas from use for access roads or staging areas. This would eliminate most potential impacts to wilderness qualities within the URUD areas.

Within the Fishlake National Forest, impacts to the Oak Creek IRA/URUD area would be the same as under Alterative II-B.

Within the Manti-La Sal National Forest, impacts to Cedar Knoll and Coal Hollow IRA/URUD areas (including differences between the Cedar Knoll IRA micro-siting options) would be the same as under Alterative II-A. Impacts to the Sanpitch IRA/URUD area would be the same as under Alternative II-B.

Within the Uinta National Forest, approximately one mile of the 250-foot-wide transmission line ROW would cross the 6,850-acre Soldier Summit IRA. This IRA has been rated as having low to moderate natural integrity/appearance and opportunities solitude and primitive recreation; no special features; and low to moderate difficulty to manage as wilderness, primarily due to the IRA size (less than 10,000 acres), and number of intrusive cherry stems (USFS 2003). During construction, approximately 32 acres of the IRA (1 percent) would be subject to vegetation removal as well as the surface disturbance associated with placement of the transmission line. The route would be located on the southwestern edge of the IRA. There are several existing USFS roads in and near this IRA. Surface disturbance would be reduced through applicant-committed roadless construction methods (as identified in the PDTR, see **Appendix D**). This would reduce the ROW to about 13 acres and eliminate surface disturbance associated with new roads within the IRA.

IRA manageability is currently rated as somewhat difficult dues to edge effects (see **Appendix H**). Placement of the transmission line along an area with existing access roads would increase edge effects, further lowering manageability. However, over 99 percent of the IRA would remain unfragmented and still over the requisite 5,000 acres. The Soldier Summit IRA provides summer range (and some winter range) for deer and elk herds as well as habitat for a variety of other game and non-game species. TransWest would be required to maintain agency-stipulated wildlife buffers and timing restrictions and would span sensitive resources (such as threatened and endangered species habitat, cultural resources, wetlands, etc.; see **Appendix C** for a full list of design features). TransWest also would use selective vegetation removal whenever possible to reduce resource impacts. Helicopter construction would require the use of 7-acre helicopter fly yards located every 5 miles along the area where helicopter construction is planned; however, it is anticipated that these would be located outside of the IRA. Application of design features in **Appendix C**, specifically the development of vegetation and noxious weed management plans to address plant removal, selective clearing, and reclamation consistent with agency permitting stipulations for soils, water, vegetation and wildlife, also would reduce impacts to habitat and wildlife throughout the area. Reclamation areas would be monitored for three to five years in accordance with USFS requirements (see **Appendix D**). As a result, the limited amount of construction ground disturbance within the IRA would not impact the diversity of plants and animals within the IRA. The IRA contains two points of water diversion for municipal purposes. TransWest would use design features and BMPs to reduce sedimentation to protect water resources within the IRA.

Within the Uinta National Forest, the 2-mile transmission line corridor in which access roads or other construction support areas also could be located would encompass acreage within the Diamond Fork, Golden Ridge, Hop Creek Ridge, Nephi, and Tie Fork IRAs. Impacts would be the same as under Alternative II-E and similar to those discussed under Alternative II-A.

<u>Alternative Variation in Region II</u>

Emma Park Alternative Variation

There would be no changes to impacts to BLM SDAs under the Emma Park alternative variation, as neither the variation nor the segments that the variation would replace include any BLM SDAs.

Selection of the Emma Park alternative variation would eliminate the disturbances within NFS SDAs that would occur if the segments that the variation would replace are selected.

The eliminated NFS SDA disturbance would be within three IRAs and URUD areas in the Ashley National Forest (IRA #401011/Cottonwood Canyon URUD area; IRA #401012/First Canyon-Right Hand Indian Canyon URUD area; and IRA #401013/Mill Hollow URUD area) and one IRA within the Uinta National Forest (IRA #418019, Soldier Summit).

Alternative Connectors in Region II

There would be no impacts to SDAs from the 250-foot-wide transmission line ROW for any of the Lynndyl, IPP East, Castle Dale, Highway 191, or Price alternative connectors.

Approximately 6 acres of the 2-mile corridor for the Lynndyl connector would be within the Oak Creek IRA. Application of **SDA-1** and adherence to the Roadless Rule as described in the **Appendices C** and **D** would eliminate all new road construction within the IRA. The 2-mile corridor would not cross any SDA under any of the other alternative connectors.

Region II Conclusions

Alternatives II-A and II-E would have no impacts to BLM SDAs and National Landscape Conservation System Lands. Alternatives II-B and II-C primarily would affect BLM SDAs and National Landscape Conservation System Lands in Colorado; Alternatives II-D and II-F would affect BLM SDAs and National Landscape Conservation System Lands in Utah. Alternatives II-B and II-C also would have fewer miles of reference line within these SDAs than Alternatives II-D and II-F, and use would be more compatible with the SDA management (under Alternatives II-B and II-C, the reference line mileage within the Demaree WSA would be within a designated utility corridor and would be laid out to avoid the WSA, whereas under Alternatives II-D and II-F, the reference line mileage within the Lower Green River ACEC and the Lower Green River WSR would cross a ROW avoidance area, would not be consistent with the criteria for a “scenic” designation, and would require a one-time exception to change the VRM class).

Alternative II-B would have the least impacts to USFS SDAs. No reference line mileage within IRAs or URUD areas, and use of roadless construction and mitigation would avoid impacts to the portions of the four IRA/URUD areas that would be within the 2-mile transmission line corridor. Alternatives II-D and II-F would have the next lowest impacts to USFS SDAs (with 1 and 3 miles, respectively, within IRAs with design features and mitigation such that the manageability of the IRAs would not be expected to appreciably change). Alternative II-E would contain the most mileage within IRAs (5 miles); however, design features and mitigation also would reduce impacts to the degree that manageability of the IRAs would not be expected to appreciably change. Alternative II-A would have about 4 miles within IRAs. Impacts would include changes to wilderness character and manageability in a small portion of the IRA. Micro-siting options may reduce mileage, but could make manageability of the IRA more difficult. Alternative II-C would affect the least number of IRAs; however, the placement of 7 miles of reference line within an URUD area would result in changes to wilderness character of the entire URUD area and could preclude the ability to manage this area as IRA/wilderness.

Alternatives II-A, II-D, II-E, and II-F would have no impacts to NHTs. Alternative II-B and II-C both would equally affect Old Spanish NHT segments along I-70 and near the town of Green River (Book Cliffs AU and the southeast portion of the San Rafael Swell AU), lowering the scenic and overall ratings of the western portion of the Book Cliffs AU (from Class B to Class C, and from SI to SII). No historic sites or interpretive sites would be affected by the presence of the transmission line. Alternative II-C would have the greatest impacts on the NHT, as it would cross the NHT five additional times (once within the western portion of the San Rafael Swell AU and the 4 times on USFS lands) and would have 49 more miles of trail within the transmission line viewshed than Alternative II-B.

3.15.4.5 Region III

Tables 3.15-13 through **3.15-16** provide a list of the SDAs that would be located within the Project corridors in Region III. These areas also are depicted in **Figures 3.15-3**, **3.15-7**, **3.15-12**, and **3.15-16**. The list of areas includes some that would be within the 2-mile corridor, but outside of the 250-foot-wide transmission line ROW.

Table 3.15-13 Region III: BLM Special Designation Areas within 250-foot-wide Transmission Line ROW and 2-Mile Transmission Line Corridor

Land Management Agency	Special Designation Area	Alternative III-A 250-foot ROW miles/acres 2-mile corridor acres	Alternative III-B 250-foot ROW miles/acres 2-mile corridor acres	Alternative III-C 250-foot ROW miles/acres 2-mile corridor acres
BLM St. George FO, Utah	Beaver Dam Wash NCA	4/117 7,575	N/A	N/A
	Beaver Dam Slope ACEC	9/278 12,350	N/A	N/A
BLM Caliente FO, Nevada	Mormon Mesa-Ely ACEC (Caliente FO)	10/290 10,720	9/265 10,615	N/A
	Beaver Dam Slope ACEC (Caliente FO)	N/A	0/0 306	N/A
	Clover Mountains Wilderness	N/A	0/0 545	N/A
	Kane Springs ACEC (Caliente FO)	N/A	N/A	10/296 6,340
	Delamar Mountains Wilderness	N/A	N/A	0/0 2,697
BLM Las Vegas FO, Nevada	Mormon Mesa ACEC (LVFO)	8/234 6,550	15/441 12,580	N/A
	Coyote Springs Valley ACEC	N/A	N/A	19/563 24,327
	Arrow Canyon Wilderness	N/A	N/A	0/0 346
	Muddy River WSR	**1** crossing/**13** **213**	1 crossing/19 81	N/A
	Meadow Valley Wash WSR	**N/A**	1 crossing/19 374	N/A

Table 3.15-14 Region III: USFS IRAs within 250-foot-wide Transmission Line ROW and 2-Mile Transmission Line Corridor

Land Management Agency	IRAs	Alternative III-A 250-foot ROW miles/acres 2-mile corridor acres	Alternative III-B 250-foot ROW miles/acres 2-mile corridor acres	Alternative III-C 250-foot ROW miles/acres 2-mile corridor acres
Dixie National Forest[1]	Bull Valley IRA	0/0 313	N/A	N/A
	Moody Wash IRA	0/0 1,760	N/A	N/A
	Mogotsu IRA	0/0 3,734	N/A	N/A
	Atchinson IRA	2/45 3,229	N/A	N/A
	Cove Mountain IRA	0/0 5,067	N/A	N/A

Table 3.15-15 Region III: USFS URUD Areas Within 250-foot-wide Transmission Line ROW and 2-Mile Transmission Line Corridor

Land Management Agency	Unroaded/Undeveloped Areas	Alternative III-A 250-foot ROW miles/acres 2-mile corridor acres	Alternative III-B 250-foot ROW miles/acres 2-mile corridor acres	Alternative III-C 250-foot ROW miles/acres 2-mile corridor acres
Dixie National Forest[1]	Bull Valley	0/0 436	N/A	N/A
	Moody Wash/Mogotsu	0/0 6,181	N/A	N/A
	Atchinson	4/124 4,217	N/A	N/A
	Cove Mountain	0/0 5,060	N/A	N/A

Table 3.15-16 Region III: Other Federally Managed Special Designation Areas Within 250-foot-wide Transmission Line ROW and 2-Mile Transmission Line Corridor

Land Management Agency	Special Designation Area	Alternative III-A 250-foot ROW miles/acres 2-mile corridor acres	Alternative III-B 250-foot ROW miles/acres 2-mile corridor acres	Alternative III-C 250-foot ROW miles/acres 2-mile corridor acres
USFWS, Nevada	Desert NWR	N/A	N/A	1/25 16,524
	Pahranagat NWR	N/A	N/A	0/0 170
	Fish & Wildlife Proposed Wilderness #1	N/A	N/A	0/0 3,317
	Fish & Wildlife Proposed Wilderness #2	N/A	N/A	0/0 5,313
	Fish & Wildlife Proposed Wilderness #3	N/A	N/A	0/0 5,428
	Unit 2 Las Vegas Range Proposed Wilderness	N/A	N/A	0/0 243
	Unit 3 Sheep Range Proposed Wilderness	N/A	N/A	0/0 4,522
BLM/NPS	Old Spanish NHT			
	Number of crossings and segment rating	3 segment crossed; 1 NHT-1, 2 unrated	No segments crossed	N/A
	Visibility of the alternative from the Old Spanish Trail	Visible along 10 miles of the trail, of which - 8 miles are NHT-I, 1.9 miles are NHT-II, and 0.1 mile of NHT-IV	Visible along 6 miles of the trail, of which 5 miles are NHT-I, 1 mile is NHT-II, and 0.1 mile is NHT-IV	N/A
	Associated Historic Sites and natural features, and nearby recreation or interpretive features	Meadow valley wash, Muddy river	None	N/A
	Management/Land Use	All crossing on BLM lands, within designated utility corridors	All crossing on BLM lands, within designated utility corridors	N/A

Alternative III-A (Applicant Proposed)

Under Alternative III-A, the 250-foot-wide transmission line ROW would cross the Beaver Dam Slope ACEC, the Beaver Dam Wash NCA (which is partially collocated with the Beaver Dam Slope ACEC), the Mormon Mesa and Mormon Mesa-Ely ACECs, the Muddy River WSR, one IRA/URUD area within the Dixie National Forest, and the Old Spanish NHT. Portions of the 2-mile transmission line corridor also would cross four additional IRA/URUD areas.

BLM SDAs and National Landscape Conservation System Lands

Within the St. George FO, Approximately 9 miles of the 250-foot-wide transmission line ROW would cross the 48,519-acre Beaver Dam Slope ACEC. For protection of critical desert tortoise habitat as well as other special status species habitat, the area is managed as a ROW avoidance area outside of designated corridors. The 250-foot-wide transmission line ROW would be entirely located within an existing designated utility corridor; therefore, it would be in conformance with management objectives. During construction, up to 278 acres (0.6 percent of the ACEC) would be subject to vegetation removal and/or surface disturbance that could affect desert tortoise or other special status species values. Agency buffers and TransWest's commitment to avoidance of special status habitat would reduce impacts to special status species values.

Approximately 12,350 acres of the of the 2-mile transmission line corridor would be located within the Beaver Dam Slope ACEC (25 percent of the ACEC). The designated utility corridor would not encompass the full width of the 2-mile transmission line corridor; approximately 4,520 acres would be located within ACEC ROW avoidance areas and an additional 2,520 acres would located in ROW avoidance areas common to both the ACEC and the Beaver Dam Wash NCA. Per the St. George RMP, new ROW and temporary use permits are strongly discouraged within the Beaver Dam Slope ACEC and shall only be authorized if no reasonable alternative exists and impacts to tortoises and their habitat can be mitigated. Surface disturbance (before restoration) resulting from all ROW in the ACECs shall not exceed 40 acres through the life of the project. Construction of unpaved roads could occur only if positive benefits to tortoise management would occur and would require concurrence from the USFWS. Paving would not be allowed. Speed limits exist within the ACEC. The St. George RMP contains numerous BMPs to reduce impacts including a desert tortoise mitigation plan with required surveys and monitoring, employee education, and other measures to reduce impacts to desert tortoise.

Application of **SDA-3** would limit impacts to the ACEC values from road construction and human activity to only those areas within the existing utility corridor; application of **SDA-2** (full road reclamation) would further reduce risk; however, initial vegetation removal and surface disturbance would still occur within the corridor. Adherence to agency stipulations and development of a desert tortoise mitigation plan would reduce impacts to desert tortoise within the corridor during construction.

Approximately 4 miles of the 250-foot-wide transmission line ROW would cross the 63,500-acre Beaver Dam Wash NCA. During construction, approximately 117 acres would be subject to vegetation removal and/or surface disturbance that could affect desert tortoise or other special status species habitat. This comprises 0.2 percent of the NCA. The 250-foot-wide transmission line ROW would be entirely located within an existing designated utility corridor, which is excluded from NCA management objectives. However, the NCA is largely collocated with the Beaver Dam Slope ACEC; therefore, it would be subject to the stipulation and requirements identified above for protection of the desert tortoise. Approximately 7,575 acres of the of the 2-mile transmission line corridor would be located within the NCA (12 percent of the NCA). The designated utility corridor would not encompass the full width of the 2-mile transmission line corridor; approximately 2,520 acres would be located within shared NCA/ACEC ROW avoidance areas and an additional 1,452 acres would be located in NCA-only ROW avoidance areas. Application of **SDA-6** would reduce impacts to the NCA values by limiting road construction to only those areas within the existing utility corridor; however, vegetation removal and surface disturbance would still occur within the corridor. Agency buffers and TransWest's commitment to avoidance of special status habitat would reduce impacts to desert tortoise and other special status species located within the corridor. Application of **SDA-2** (full road

reclamation) would reduce operation impacts. Adherence to agency stipulations and development of a desert tortoise mitigation plan would reduce impacts to desert tortoise within the corridor during construction.

Within the Caliente FO, approximately 10 miles of the 250-foot-wide transmission line ROW would cross the 36,800-acre Mormon Mesa-Ely ACEC. The ACEC is managed for the protection of critical desert tortoise habitat as a ROW avoidance area outside of designated corridors. During construction, approximately 290 acres (0.8 percent of the ACEC) would be subject to vegetation removal and surface disturbance that could affect desert tortoise or other special status species habitat. The 250-foot-wide transmission line ROW would be largely located within an existing designated utility; however, approximately 2 acres would be located within designated ROW exclusion areas. Additionally, of the approximately 10,720 acres of the 2-mile transmission line corridor that would be located within the ACEC (29 percent of the ACEC), 6,534 acres would be in ROW exclusion areas. Development of a transmission line or associated roads would not be in conformance with area management. The Ely RMP contains numerous BMPs to reduce impacts to desert tortoise including a development mitigation plan that includes surveys and monitoring, employee education, and other measures to reduce impacts to desert tortoise. Application of **SDA-3** would limit the impacts to ACEC values from road construction and human activity to only those areas within the existing utility corridor. **SDA-2** (full road reclamation) would further reduce risk; however, initial vegetation removal and surface disturbance would still occur within the corridor. Adherence to agency stipulations and development of a desert tortoise mitigation plan would reduce impacts to desert tortoise within the corridor during construction.

Within the Las Vegas FO, approximately 8 miles of the 250-foot-wide transmission line ROW would cross the 151,360-acre Mormon Mesa ACEC. The ACEC is managed as a ROW avoidance area outside of designated corridors to protect critical desert tortoise habitat. Reclamation of temporary roads is required, and ROW corridors are limited to 3,000 feet. During construction, approximately 234 acres (0.2 percent of the ACEC) would be subject to vegetation removal and surface disturbance that could affect desert tortoise habitat. The 250-foot-wide transmission line ROW would be located entirely within an existing designated utility corridor; therefore, it would be in conformance with area management. Agency BMPs and TransWest's commitment to avoidance of special status habitat would reduce impacts to desert tortoise within this corridor areas. Approximately 6,550 acres of the of the 2-mile transmission line corridor would be located within the ACEC (4 percent of the ACEC). Of this total acreage, approximately 4,555 acres would be located within ROW avoidance areas. Application of **SDA-3** would limit the impacts to ACEC values from road construction and human activity by restricting activities to only those areas within the existing utility corridor.

Under Alternative III-A, the 250-foot-wide transmission line ROW would cross a segment of the Muddy River eligible for WSR "recreational" designation on the basis of its outstanding remarkable wildlife, cultural, and fish features. Approximately 213 acres of the 2-mile transmission line corridor would be within the 11-mile eligible river segment.

Under BLM Wild and Scenic Rivers Policy and Program Direction for Identification, Evaluation, and Management (BLM Manual 8351), new transmission lines, natural gas lines, water lines, etc., are discouraged unless specifically authorized by other plans, orders, or laws. Where no reasonable alternate location exists, additional or new facilities should be restricted to existing ROWs. Alternative III-A is not within a designated utility corridor and there are other alternatives that could be selected that would cross the river segment within designated utility corridors. Per BLM WSR guidance, where new ROWs are unavoidable, locations and construction techniques shall be selected to minimize adverse effects on recreational river area related values and fully evaluated during the site selection process.

Under Alternative III-A, the river crossing location would not be within a designated utility corridor; however, development of a transmission line crossing would be consistent with the criteria for a "recreational" designation (substantial evidence of human activity, readily accessible by road, etc.). Impacts to the outstanding remarkable features of the river segment would be reduced by design features and agency BMPs, including riparian habitat and sensitive species habitat buffers, and BMPs to reduce potential for

erosion and sedimentation that could affect fish habitat. Potential impacts to cultural resources from surface disturbance would be mitigated through the compliance with the Project PA.

The following mitigation is suggested to ensure compatibility with the BLM WSR Policy:

SDA-7: *ROW, road, or ground electrode placement within river segments that are eligible for inclusion in the NWSRS shall be micro-sited in coordination with BLM to minimize surface disturbance or visual disturbance from towers, roads, or other facilities to the outstandingly remarkable features that led to segment eligibility.*

Application of this mitigation would allow the BLM to protect the "recreational" classification of this river segment until a suitability analysis has been completed.

USFS IRAs and URUD Areas

Alternative III-A would cross approximately 2 miles of a designated IRA and approximately 4 miles of a URUD area within the Dixie National Forest; the 2-mile transmission line corridor would encompass portions of four additional IRA/URUD areas.

Approximately 2 miles of the 250-foot-wide transmission line ROW would cross the 17,663-acre Atchinson IRA; 4 miles would cross the 24,306-acre Atchison URUD area. The Atchinson IRA and Atchinson URUD area comprise most of the same acreage, but there is approximately 6,600 acres of URUD area that are outside of the IRA. The Atchinson IRA/URUD area was rated by the USFS as having a low natural integrity, medium undeveloped character, medium opportunities for solitude, low opportunities for primitive recreation, and medium manageability (USFS 2009b).

Alternative III-A would parallel one or more existing transmission lines but would be largely outside of the WWEC-designated utility corridor within the IRA/URUD area. Disturbances would be located on the western edges of the IRA/URUD area (see **Figure 3.15-16**), keeping over 99.9 percent of the IRA and URUD area unfragmented and well over the requisite 5,000 acres with minimal effect to manageability.

Use of a full 250-foot-wide transmission line ROW would result in up to 124 acres of vegetation removal within the Atchinson URUD area, 45 of which would be in the Atchinson IRA. Roadless construction methods (as identified in the PDTR, see **Appendix D**) would be utilized within IRAs to ensure compliance with the Roadless Rule. These include use of helicopters for tower placement, use of existing roads, and overland travel. Application of the roadless construction techniques within IRAs would reduce the ROW within the Atchinson IRA to about 23 acres and would eliminate the surface disturbance associated with new roads within the IRA.

During construction, there would be surface disturbance within the Atchinson IRA associated with overland travel as well as the vegetation removal and surface disturbance from the transmission line placement itself (up to 23 acres). TransWest would span sensitive resources (such as threatened and endangered species habitat, cultural resources, wetlands, etc.; see **Appendix C** for a full list of design features) and use selective vegetation removal whenever possible to reduce resource impacts. Helicopter construction would require the use of 7-acre helicopter fly yards located every 5 miles along the area where helicopter construction is planned; however, it is anticipated that these would be located outside of the IRA. Application of design features in **Appendix C**, specifically the development of vegetation and noxious weed management plans to address plant removal, selective clearing, and reclamation consistent with agency permitting stipulations for soils, water, vegetation and wildlife, also would reduce impacts to habitat and wildlife throughout the area. Reclamation areas would be monitored for 3 to 5 years in accordance with USFS requirements (see **Appendix D**). As a result, the limited amount of construction ground disturbance within the IRA would not impact the diversity of plants and animals within the IRA.

There are no impaired streams within the IRA/URUD areas. TransWest would use design features and BMPs to reduce sedimentation to protect water resources within the IRA/URUD, and there would be no impact to the groundwater resources used by resident of Pine Valley and Central.

About half of the 250-foot-wide ROW acreage within the Atchinson IRA would be in areas designated as roaded natural; the other half would be in areas designated as semi-primitive motorized and non-motorized ROS. The sights and sounds of construction would not be consistent with semi-primitive motorized and non-motorized ROS designations; however, impacts to opportunities for primitive recreation in these areas would be temporary and would not affect the majority of the IRA (see Section 3.13, Recreation, for more information about acreages by ROS).

During operations, TransWest would use aircraft or non-motorized methods for maintenance and would work with the USFS to identify appropriate vegetation management techniques and to prevent unauthorized travel along the ROW by off-road vehicles. Standard vegetation management techniques would result in a 250-foot-wide corridor of low-growth plant communities ranging from 2 to 6 feet in height. Depending on the location and habitat type, this type of vegetation management could result in long term loss of wildlife habitat. Impacts from operation would be reduced through application of **SDA-5** (Class 2 or Class 3 vegetation maintenance options). Application of this mitigation would minimize disturbance to wildlife habitat. Level 2 vegetation management would reduce the area with 6-foot vegetation height restrictions to 90 feet wide and allow vegetation at the outside edges of the ROW to reach a maximum height of 35 feet. Level 3 vegetation management would allow increased vegetation heights anywhere within the ROW as along as vegetation does not encroach on the required minimum clearances (about 29 feet).

The existing landscape character of the IRA would be modified by the presence of the transmission line within the IRA; however, the route would parallel one or more existing transmission lines and would be located in areas where existing man-made features have already affected wilderness character. Visual impacts and proposed mitigation are discussed in greater detail in Section 3.12, Visual Resources. There are no known cultural resource sites within the Atchinson IRA/URUD area and no other special features or values characterizing wilderness potential present within the IRA. Impacts to any cultural resource sites would be mitigated per the PA (see Section 3.11, Cultural Resources and Native American Concerns).

Overall, the impacts associated with construction, operation, and maintenance would result in a permanent loss of acres where the Project would cross the Atchinson IRA, would diminish the natural appearance and undeveloped character of the outermost portion of Atchinson IRA, and could decrease any opportunities for solitude and primitive recreation in or near those areas, if any exist. However, the wilderness characteristics of the area have already been affected by existing man-made features present in the area, and changes in the wilderness qualities would not be large enough to preclude management of the areas as an IRA and/or wilderness.

Outside of the Atchinson IRA, the 250-foot-wide transmission line ROW would encompass approximately 80 additional acres of the Atchinson URUD area. In addition, the 2-mile transmission line corridor in which access roads or other construction support areas also could be located would encompass 4,217 acres within the Atchinson URUD area (3,229 acres within the Atchinson IRA), as well as portions of the Bull Valley, Moody Wash, Mogotsu, and Cove Mountain IRA/URUD areas (see **Tables 3.15-14** and **3.15-15**). While access road construction within IRAs would not be in conformance with area management (see roadless construction techniques described above), there is no specific management restriction precluding road development in URUD areas outside of IRAs, provided the Standard and Guideline for general forest management are met. Therefore, any construction within the approximately 1,000 acres that would be located within the 2-mile transmission line corridor and within the Atchinson URUD area but outside of the Atchinson IRA, and the 800 acres that would be within the Bull Valley, Moody Wash, Mogotsu and Cove Mountain URUD areas but not within their respective IRAs (see **Table 3.15-14** and **Table 3.15-15**) would not be required to adhere to roadless construction techniques. As a result, these areas could be subject to access road and support facility development that would result in additional surface disturbance and/or vegetation removal, with concomitant impacts to wildlife habitat, opportunities for solitude and primitive

recreation, and wilderness character. Application of **SDA-1** (avoidance of new road construction in SDAs) and **SDA-6** (application of roadless construction techniques within URUD areas) would eliminate all portions of the 2-mile transmission line corridor within URUD areas from use for access roads or staging areas. This would eliminate most potential impacts to wilderness qualities except for the visual impacts described above and would allow the Dixie National Forest to continue to consider these areas for IRA and/or wilderness designation when they complete their LRMP revision.

Other Federally Managed SDAs and National Trails

Within Utah, Alternative III-A would cross 3 segments of the Old Spanish NHT within the N. Cedar City AU; two additional trail segment crossings would be located on NFS land within the Dixie National Forest. These portions of the Old Spanish NHT were not included in the 2012 NHT Inventory and there are no NHT Condition Class ratings for these segments or information as to which segments within N. Cedar City AU or the Dixie National Forest contribute to the trail's NHT status.

Within the N. Cedar City AU, the proposed trail crossing would be located near an existing transmission line. There are no associated historic sites, recreation areas, or interpretive features located near trail segments in this area.

Within the Dixie National Forest, the proposed trail crossing would be located near Spring Creek and within a WWEC-designated corridor and would parallel an existing transmission line. There is one associated historic site located near affected trail segments in this area, the Mountain Meadows NHL and Site. This site would be located 0.1 mile from the transmission line.

Within Nevada, Alternative III-A would cross one segment of the Old Spanish NHT located on BLM land east of I-15, near Logandale (within the Mormon Mesa AU). This segment is rated as NHT-I and contributes to the trail's NHT status. There are no associated historic sites, recreation areas, or interpretive features located near trail segments in this area; however, the trail is located near the Meadow Valley Wash and Muddy River, two waterbodies of importance to travelers. The crossing would be in compliance with the Las Vegas RMP as the crossing would be located within a WWEC-designated utility corridor. Towers would be placed to avoid surface disturbance near the actual trail.

Alternative III-A also would be visible from the Old Spanish NHT for approximately 23 miles of trail segments. **Table 3.15-17** summarizes key features of trail segments that would be in the Alternative III-A viewshed.

Table 3.15-17 Alternative III-A Visibility Impacts by Old Spanish NHT Analysis Unit

AU (Location)	Segment Rating	Number of Segments	Contributing to NHT Status	Miles of Trail within Viewshed[1]	Total Mileage within AU	Percentage of AU within Viewshed
Mormon Mesa (Las Vegas FO; (12 miles total)	Highest rating within AU (NHT-I; exceptional)	2	1 contributing, one unevaluated	8	8	100
	Remaining mileage (evident)	3	1 contributing, 2 unevaluated	1	4	25
California Crossing (Las Vegas FO; 3 miles total)	Highest rating within AU (NHT-II; exceptional)	1	unevaluated	1	1	100
	Remaining mileage (high potential)	0	NA	0	2	0
Dixie National Forest		N/A	Unknown	13	N/A	N/A

[1] Visibility of Alternative III-A from the historic trail is based on the 5-mile viewshed.

Trace ratings are not available for the 13 miles of trail that would be visible on NFS lands, and it is not known which segments within the viewshed contribute to the trail's NHT status. There is one associated historic site located near affected trail segments in this area, the Mountain Meadows NHL and Site. This site would be located 0.1 mile from the transmission line. Proposed visual mitigation (see Section 3.12, Visual Resources) would reduce visual contrasts to a level consistent with LRMP objectives for this area.

Of the 10 miles located on BLM lands, approximately 8 miles of trail segments are categorized as NHT-I (location verified, evident, and unaltered); approximately 1.9 miles of trail segments are categorized as NHT-II (location verified and evident with minor alteration); and, approximately 0.1 mile is categorized as NHT-IV (location verified and permanently altered).

Within the Mormon Mesa AU, selection of Alternative III-A would result in visual impacts to about 9 miles (75 percent) of the 12 miles of inventoried trail within the AU. This includes 8 miles of trail rated as NHT-I/Exceptional (100 percent of the highest rated mileage within the AU). The remaining mileage comprises trail segments that are considered to be "Evident." Affected mileage constitutes 25 percent of "Evident" segments within the AU. Two of the five trail segments within the viewshed contribute to the trail's NHT status. The presence of the transmission line would affect the historic setting of the trail (currently characterized as retained) and could affect opportunities for the public to access and enjoy the trail. Integrity of historic setting is retained throughout this AU, and scenic quality over most of the AU is average (Class B, with an SQRU score of 15 except for the easternmost area along the Virgin River, which has high scenic quality (Class A, with a SQRU score of 21), resulting in an overall rating of SI (AECOM 2012). The portions of the trail segments that are within Class A rated areas would not be within the viewshed of the transmission line. Selection of Alternative III-A would result in a 4 point reduction in the SQRU score for this area, reducing the score to 11 (Class C) for trail segments within the transmission line viewshed. Overall rating of these segments would be correspondingly reduced to SII. The I-15 rest stop would be within immediate foreground (0.0 to 0.5-mile) visibility of the transmission line. The rest does not currently offer interpretive materials related to the Old Spanish NHT.

Within the California Crossing AU, selection of Alternative III-A would result in visual impacts to about one mile (33 percent) of the 3 miles of inventoried trail within the AU. This mileage is rated as NHT-I/Exceptional and constitutes 100 percent of the highest rated mileage within the AU. No another trail segments would be affected. The contributing status of this trail segment has not been evaluated. The presence of the transmission line would affect the historic setting of the trail (currently characterized as retained), but scenic quality is already within the lowest class (C, with a SQRU score of 8.5). There are no associated historic sites, interpretive sites, or recreation areas located near these segments, and this AU is not likely to be used as an interpretation site for the public as trail locations or traces are not readily visible.

Once the final route is selected, an intensive Class III inventory and in-depth visual analysis would be conducted to determine the impact to contributing Old Spanish NHT segments crossed by the route or from which the route would be visible. If a contributing segment would be adversely affected, the effects would be minimized or mitigated onsite or offsite as stipulated in the Cultural Resources PA developed for the Project, and through implementation of design features and BMPs in concert with the Trail Study Agency and the Wyoming BLM National Trails Management Program Lead. Mitigation identified in Section 3.12, Visual Resources, includes measures to reduce visual impacts through use of BLM environmental colors and location of structures, roads, and other project elements as far back from road, trail, and river crossings as possible, and where feasible, employ terrain and vegetation to screen views from crossings

Alternative III-B (Agency Preferred)

Under Alternative III-B, the 250-foot-wide transmission line ROW would cross the Mormon Mesa-Ely (Caliente FO) and Mormon Mesa (Las Vegas FO) ACECs, Muddy River WSR, and the Meadow Valley Wash WSR. Portions of the 2-mile transmission line corridor also would cross the Beaver Dam Slope ACEC (in the Caliente FO) and the Clover Mountains Wilderness.

BLM SDAs and National Landscape Conservation System Lands

Alternative III-B would cross both the Caliente FO Mormon Mesa-Ely and Las Vegas FO Mormon Mesa ACECs. Impacts would be the same as described under Alternative III-A except that 9 miles (265 acres) of the 250-foot-wide transmission line ROW would cross the Caliente FO ACEC and 15 miles (441 acres) would cross the Las Vegas FO ACEC. Portions of the 2-mile transmission line corridor in which roads and construction support areas would be located also would fall within these two ACECS. Impacts would be similar to those described under Alternative III-A for the Caliente FO ACEC but with 105 acres less impacted. Within the Las Vegas FO ACEC, approximately 12,580 acres (8 percent) of the 2-mile transmission line corridor would fall within the ACEC, 6,663 acres of which would be located within ROW avoidance areas.

Under Alternative III-B, the 250-foot-wide transmission line ROW would cross a segment of the Muddy River eligible for inclusion as a WSR under a “recreational” designation. Impacts would be similar as under Alternative III-A, except that only 81 acres of the 2-mile transmission line corridor would be within the 11-mile eligible river segment, and the 250-foot-wide transmission line ROW would be within a designated utility corridor. The placement of Alternative III-B is consistent with BLM Manual 8351, which states that when no reasonable alternate location exists, additional or new facilities should be restricted to existing ROWs. Impacts would be minimized by application of **SDA-7**, which would require micro-siting of facilities to minimize surface disturbance or visual disturbance to the segment’s outstandingly remarkable features.

The 250-foot-wide transmission line ROW also would cross a segment of the Meadow Valley Wash. This riparian system is eligible for inclusion as a WSR under a “scenic” designation. Approximately 19 acres of the 250-foot-wide transmission line ROW and 374 acres of the 2-mile transmission line corridor would be within the 11-mile eligible segment. The crossing would not be within a designated utility corridor. Development of a transmission line would not be consistent with the criteria for a “scenic” designation (largely primitive and undeveloped, no substantial evidence of human activity, etc.). There are other alternatives that could be selected that do not cross segments eligible for inclusion into the NWSRS; however, this alternative was selected as the agency preferred alternative (i.e., the route that best addressed multiple resource concerns). Impacts to the outstanding remarkable features (wildlife, cultural and fish) of the eligible wash segment would be reduced by design features and agency BMPs, including riparian habitat and sensitive species habitat buffers and BMPs to reduce potential for erosion and sedimentation that could affect fish habitat. Potential impacts to cultural resources from surface disturbance would be mitigated through the compliance with the Project PA. Application of **SDA-1** and **SDA-2** would reduce or limit roads development within the eligible segment whenever possible, or require reclamation where avoidance is not practicable; however, the visual impacts from operation of the line would not be mitigated. Application of **SDA-7** would require micro-siting of facilities to further minimize surface disturbance or visual disturbance to the segment’s outstandingly remarkable features.

Approximately 545 acres of the 2-mile transmission line corridor in which roads and construction support areas would be within the Clover Mountains Wilderness Area. This would comprise 0.6 percent of the SDA. The Caliente FO has identified all designated wilderness as ROW exclusion areas. Development of roads or use of motorized vehicles within this portion of the 2-mile transmission line corridor would not be compatible with area management. TransWest’s commitment to comply with agency stipulations (TWE-1) and/or implementation of **SDA-1** would eliminate potential impacts within the wilderness area from road construction; however, the wilderness quality in the areas closest to the 250-foot-wide transmission line ROW could be temporarily reduced by noise and activity during construction.

Approximately 306 acres of the 2-mile transmission line corridor would be located within the 36,800-acre Beaver Dam Slope ACEC in the Caliente FO. This area of the ACEC is designated for protection of desert tortoise. Application of **SDA-3** would limit the impacts to ACEC values from road construction and human activity by restricting activities to only those areas within the existing utility corridor.

USFS IRAs and Unroaded/Undeveloped Areas

Alternative III-B would not cross any designated IRAs or URUD areas.

Other Federally Managed SDAs and National Trails

Alternative III-B would not cross not the Old Spanish NHT but would be visible for approximately 6 miles of inventoried trail. Of those 6 miles, approximately 5 miles of trail segments are categorized as NHT-I (location verified, evident, and unaltered); approximately 1 mile of trail segments are categorized as NHT-II (location verified and evident with minor alteration); and, approximately 0.1 mile is categorized as NHT-IV (location verified and permanently altered). Visibility of the alternative from the historic trail and road is based on the 5-mile (either side of the 250-foot transmission line ROW) viewshed or indirect APE. These segments would be located within the Mormon Mesa and California Crossing AUs.

Table 3.15-18 summarizes key features of trail segments that would be in the Alternative III-B viewshed.

Table 3.15-18 Alternative III-B Visibility Impacts by Old Spanish NHT Analysis Unit

AU	Segment Rating	Number of Segments	Contributing to NHT Status	Miles of Trail within Viewshed[1]	Total Mileage within AU	Percentage of AU within Viewshed
Mormon Mesa (Las Vegas FO; (12 miles total)	Highest rating within AU (NHT-I; exceptional)	2	1 contributing, one unevaluated	5	8	63
	Remaining mileage	3	1 contributing	0.2	4	5
California Crossing (Las Vegas FO; 3 miles total)	Highest rating within AU (NHT-II; exceptional)	1	Unevaluated	1	1	100
	Remaining mileage	0	NA	0	2	0

[1] Visibility of Alternative III-B from the historic trail is based on the 5-mile viewshed.

Impacts would be similar to those described under Alternative III-A, but would affect fewer mileage of inventoried trail segments for the Mormon Mesa AU (41 percent of the total inventoried mileage of Old Spanish NHT within the AU and 63 percent of the highest rated segments).

Once the final route is selected, an intensive Class III inventory and in-depth visual analysis would be conducted to determine the impact to contributing Old Spanish Trail segments crossed by the route or from which the route would be visible. If a contributing segment would be adversely affected, the effects would be minimized or mitigated onsite or offsite as stipulated in the Cultural Resources Programmatic Agreement developed for the Project, and through implementation of design features and BMPs in concert with the Trail Study Agency and the Wyoming BLM National Trails Management Program Lead. Mitigation identified in Section 3. 12, Visual Resources includes measures to reduce visual impacts through use of BLM environmental colors and location of structures, roads, and other project elements as far back from road, trail, and river crossings as possible, and where feasible, employ terrain and vegetation to screen views from crossings.

Alternative III-C

The Alternative III-C 250-foot-wide transmission line ROW would cross the Desert NWR, the Delamar Mountains Wilderness, the Kane Springs ACEC, and the Coyote Springs ACEC. Portions of the 2-mile transmission line corridor also would cross the Arrow Canyon Wilderness, Pahranagat NSR, and portions of five USFWS proposed wilderness areas.

BLM SDAs and National Landscape Conservation System Lands

Within the Caliente FO, approximately 10 miles of the 250-foot-wide transmission line ROW would cross the 57,190-acre Kane Springs ACEC. To protect desert tortoise, the ACEC is managed as a ROW exclusion area outside the existing corridor. Approximately 9 miles of the 250-foot-wide transmission line ROW would

fall outside the designated corridor. During construction, approximately 296 acres (0.5 percent of the ACEC) would be subject to vegetation removal and surface disturbance that could affect desert tortoise. Additionally, of the approximately 6,340 acres of the 2-mile transmission line corridor located within the ACEC (28 percent of the ACEC), 5,298 acres would be in ROW exclusion areas. Development of a transmission line or associated roads would not be in conformance with area management. The Ely RMP contains numerous BMPs to reduce impacts to desert tortoise including a development mitigation plan that includes surveys and monitoring, employee education, and other measures to reduce impacts to desert tortoise. Application of **SDA-3** would limit the impacts to ACEC values by restricting road construction and human activity to only those areas within the existing utility corridor. **SDA-2** (full road reclamation) would further reduce risk; however, initial vegetation removal and surface disturbance would still occur within the corridor. Adherence to agency stipulations and development of a desert tortoise mitigation plan would reduce impacts to desert tortoise within the corridor during construction.

Within the Las Vegas FO, approximately 19 miles of the 250-foot-wide transmission line ROW would cross the 75,500-acre Coyote Springs Valley ACEC. To protect desert tortoise, the ACEC is managed as a ROW avoidance area outside the existing corridor. Approximately 1 mile of the 250-foot-wide transmission line ROW would fall outside the designated corridor. During construction, approximately 563 acres (0.01 percent of the ACEC) would be subject to vegetation removal and surface disturbance that could affect desert tortoise. Agency BMPs and TransWest's commitment for avoidance of special status habitat would reduce impacts to desert tortoise within this corridor area. Approximately 24,327 acres of the 2-mile transmission line corridor would be located within the ACEC (32 percent of the ACEC); of this total acreage, approximately 10,566 acres are located within ROW avoidance areas. Application of **SDA-3** would limit the impacts to desert tortoise from road construction and human activity by restricting activity to only those areas within the existing utility corridor.

Approximately 2,697 acres of the 2-mile transmission line corridor would fall within the Delamar Mountain Wilderness; an additional 346 acres would fall within the Arrow Canyon Wilderness. The Ely FO has identified all designated wilderness as ROW exclusion areas.

USFS IRAs and URUD Areas

Alternative III-C would not cross any designated IRAs or URUD areas.

Other Federally Management SDAs and National Trails

Approximately 1 mile of the 250-foot-wide transmission line ROW would cross the 1.5 million-acre Desert NWR. The refuge was established for the protection, enhancement, and maintenance of desert bighorn sheep. As part of the Lincoln County Conservation, Recreation, and Development Act of 2004 (PL 108–424), administrative jurisdiction over approximately 8,382 acres of land along the eastern boundary of Desert NWR and west of U.S. Highway 93 was transferred from the USFWS to the BLM for use as a utility corridor. The majority of the 250-foot-wide transmission line ROW would fall within this corridor. During construction, approximately 25 acres of the Refuge would be subject to vegetation removal and surface disturbance that could affect bighorn sheep. Adherence to design features, agency BMPs, and wildlife mitigation identified in Section 3.7 would reduce impacts to wildlife species within this NWR. Approximately 16,524 acres of the NWR would fall within the area of the 2-mile transmission line corridor in which roads and construction support areas could be built. This would comprise about 1.1 percent of the NWR. Development of roads is not prohibited within the NWR outside of the proposed wilderness areas, but would result in surface disturbance, noise, and activity that would impact NWR values. TransWest's commitment to comply with agency stipulations (TWE-1) and/or implementation of **SDA-1** would eliminate potential impacts to wildlife within the refuge from road construction.

Approximately 170 acres of the Pahranagat NWR would be within the 2-mile transmission line corridor. The refuge provides habitat for migratory birds, especially waterfowl. Development of roads is not prohibited within the NWR. Adherence to design features and agency BMPs to protect desert tortoise and cultural resources as well as measures to reduce fugitive dust and other impacts that occur from road construction

would reduce impacts to wildlife resources within the refuge. Wildlife mitigation identified in Section 3.7, Wildlife, and Section 3.8, Special Status Wildlife Species, also would reduce impacts to shorebirds and other migratory bird species.

The 2-mile transmission line corridor would also contain 18,823 acres of area proposed by the USFWS for wilderness designation. Development of roads or use of motorized vehicles within this portion of the 2-mile transmission line corridor would not be compatible with area management. TransWest's commitment to comply with agency stipulations (TWE-1) and/or implementation of SDA-1 would eliminate potential impacts within the wilderness area from road construction; however, the wilderness quality in the areas closest to the 250-foot-wide transmission line ROW could be temporarily reduced during construction from noise and activity.

Alternative Variations in Region III

The land ownership crossed by the alternatives in Region III and other key impact parameters are summarized in **Table 3.15-19**.

Alternative Connector in Region III

The Moapa Alternative Connector and the Avon Alternative Connector would not cross any SDAs in Region III. The Moapa Alternative Connector would be visible from the Old Spanish Trail for approximately 1 mile. The 1-mile segment is categorized as NHT II (location verified and evident with minor alteration).

Table 3.15-19 Impact Parameters of Alternative Variations and Comparative Portions of Alternatives in Region III

Ox Valley East Alternative Variation	Comparable (Portions of Alt III-A)	Ox Valley West Alternative Variation	Comparable (Portions of Alt III-A)	Pinto Alternative Variation	Comparable (Portions of Alt III-A)
SDAs Crossed by 250-foot-wide transmission line ROW					
IRAs: 1 mile (34 acres) in Gum Hill IRA; <0.5 mile (7 acres) in Mogotsu IRA URUD areas: 9 miles (269 acres) in Moody Wash/Mogotsu URUD area. Old Spanish NHT: 1 trail crossing, 6 miles of trail within viewshed, Mountain Meadows NHL and Site located 3 miles from the transmission line	IRAs: 2 mile (45 acres) within Atchinson IRA URUD areas: 4 mile (124 acres) within Atchinson URUD area. Old Spanish NHT: 2 trail crossings, 13 miles of trail within viewshed, Mountain Meadows NHL and Site located 0.1 mile from the transmission line	IRAs: No reference line crossings, less than 0.5 acre in Gum Hill IRA URUD areas: 9 miles (275 acres) in Moody Wash/Mogotsu URUD area. Old Spanish NHT: 1 trail crossing, 6 miles of trail within viewshed, Mountain Meadows NHL and Site located 3 miles from the transmission line	IRAs: 2 miles (45 acres) in Atchinson IRA URUD areas: 4 mile (124 acres) within Atchinson URUD area. Old Spanish NHT: 2 trail crossings, 13 miles of trail within viewshed, Mountain Meadows NHL and Site located 0.1 mile from the transmission line	IRAs: No reference line crossings, less than 0.5 acre in Atchinson IRA. URUD areas: 1 mile (41 acres) in Cove Mountain, 6 miles (176 acres) in Atchinson, 2 miles (57 acres) in Kane Mountain and 4 miles (122 acres) in Pine Valley Mountain URUD areas. Old Spanish NHT: 0 trail crossing, 3 miles of trail within viewshed, Mountain Meadows NHL and Site located 5 miles from the transmission line	IRAs: 2 miles (45 acres) in Atchinson IRA. URUD areas: 4 mile (124 acres) within Atchinson URUD area. Old Spanish NHT: 2 trail crossings, 13 miles of trail within viewshed, Mountain Meadows NHL and Site located 0.1 mile from the transmission line
SDAs Crossed by 2-mile Transmission Line Corridor					
IRAs: 9,829 acres within Gum Hill, Mogotsu, and Moody Wash IRAs. URUD areas: 11,298 acres in Moody Wash/Mogotsu URUD area.	IRAs: 9,122 acres within Atchinson, Cove Mountain, and Mogotsu IRAs. URUD areas: 10,416 acres in Moody Wash/ Mogotsu, Cove Mountain, and Atchinson URUD areas	IRAs: 6,928 acres within Gum Hill, Mogotsu, and Moody Wash IRAs. URUD areas: 9,964 acres in Moody Wash/Mogotsu URUD area.	IRAs: 9,122 acres within Atchinson, Cove Mountain, and Mogotsu IRAs. URUD areas: 10,416 acres in Moody Wash/ Mogotsu, Cove Mountain, and Atchinson URUD areas.	IRAs: 7,276 acres in Atchinson, Cove Mountain, Kane Mountain, and Pine Mountain IRAs. URUD areas: 16,422 acres in Atchinson, Cove Mountain, Kane Mountain, and Pine Mountain URUD areas.	IRAs: 11,613 acres within Atchinson, Cove Mountain, and Mogotsu IRAs. URUD areas: 12,847 acres in Moody Wash/ Mogotsu, Cove Mountain, and Atchinson URUD areas.

Alternative Ground Electrode Systems in Region III

A ground electrode system of approximately 600 acres in size would be necessary in Region III within 50 to 100 miles of the southern terminal, as discussed in Chapter 2.0. Although the location for this system has not been determined, conceptual locations and connections to the alternative routes have been provided by the Project proponent. The ground electrode system alternative locations that would be in Region III are depicted in Chapter 2.0 on **Figure 2-23**. The conceptual sites would not include any SDAs; however the Meadow Valley ground electrode system siting area (Alternative III-C) would include 406 acres within a portion of the Meadow Valley Wash riparian system eligible for inclusion as a WSR under a "scenic" designation. Development of a ground electrode site within this area would not be consistent with the criteria for a "scenic" designation (largely primitive and undeveloped, no substantial evidence of human activity, etc.). Impacts to the outstanding remarkable features (wildlife, cultural, and fish) of the eligible wash segment would be reduced by design features and agency BMPs, including riparian habitat and sensitive species habitat buffers, and BMPs to reduce potential for erosion and sedimentation that could affect fish habitat. Potential impacts to cultural resources from surface disturbance would be mitigated through the compliance with the Project PA. Application of **SDA-1** and **SDA-2** would reduce or limit roads development within the eligible segment whenever possible, or require reclamation where avoidance is not practicable; however, the visual impacts from operation of the line would not be mitigated. Application of **SDA-7** would require micro-siting of facilities to further minimize surface disturbance or visual disturbance to the segment's outstandingly remarkable features. The Meadow Valley ground electrode system siting area would also include less than 0.5 acres within the Mormon Mesa ACEC. The ACEC is managed as a ROW avoidance area outside of designated corridors to protect critical desert tortoise habitat.

Application of **SDA-4** (ground electrode systems shall be sited outside of any designated SDAs located within the ground electrode siting areas), **SDA-1** (avoidance of new road construction in SDAs), and **SDA-3** (avoidance of SDAs within ground electrode siting areas in final placement of ground electrode site) would eliminate construction of any access roads within this area.

Additionally, under Alternatives III-A and III-B, the Mormon Mesa-Carp Elgin Rd ground electrode system siting area would encompass portions of the Old Spanish Trail and the associated access road and transmission line would parallel five Old Spanish NHT segments for approximately 4 miles. Application of **SDA-4** would eliminate direct impacts to the trail from the ground electrode system but would not reduce impacts from the access road and transmission line. The majority of the mileage is rated as NHT-I, and two of the five segments contribute to the trail's NHT status. Impacts would be similar to those described under Alternative III-A; however, the presence of a ground electrode system would not be expected to reduce the current Class B scenic quality rating or the current SI overall rating for portions of the AU within the viewshed.

Region III Conclusion

All alternatives within Region II would result in impacts to SDAs designated by the BLM for the protection of desert tortoise. Of the three alternatives, Alternative III-A would result in the most mileage within in these SDAs (approximately 30 miles; 900 acres of 250-foot-wide ROW within 1 NCA and 3 ACECs in Nevada and Utah). Alternative III-B would have the least impacts to these resources (approximately 24 miles and 700 acres of 250-foot-wide ROW within 2 ACECS in Nevada). Alternative III-C would impact these resources equally (40 miles and 940 acres of 250-foot-wide transmission line ROW).

Alternative III-B would have the most impacts to WSRs, as it would have two crossings to segments eligible for inclusion as WSRs. Alternative III-C would not cross any WSR-eligible segments.

Of the three alternatives, only Alternative III-A would impact USFS IRAs and URUD areas. Roadless construction techniques would be used in IRAs to reduce surface disturbance within IRAs, but there would still be impacts from the transmission line itself within one IRA.

Alternatives III-A and III-B would not affect any other federally managed SDAs. Alternative III-C would impact two USFWS Wildlife Refuges and five proposed wilderness areas; however, TWE design features and mitigation measures would eliminate many of the impacts to these areas.

Alternative III-A would have the greatest impact on NHTs as it would cross three segments of the Old Spanish NHT and would affect the viewshed of approximately 10 miles of the Old Spanish NHT. Alternative III-C would not affect NHTs. Alternative III-B would not cross any NHTs, but would affect the viewshed of 6 miles of the Old Spanish NHT.

3.15.4.6 Region IV

Table 3.15-16 provides a list of the SDAs that would be located within the Project corridors in Region IV. These areas also are depicted in **Figures 3.15-4**, **3.15-8**, and **3.15-12**. The list of areas identifies SDAs within the 250-foot-wide transmission line ROW as well as those outside of the ROW but within the 2-mile transmission line corridor.

Table 3.15-20 Region IV: SDAs within 250-foot-wide Transmission Line ROW and 2-Mile Transmission Line Corridor

Special Designations Area	Alternative IV-A 250-foot ROW miles/acres 2-mile corridor acres	Alternative IV-B 250-foot ROW miles/acres 2-mile corridor acres	Alternative IV-C 250-foot ROW miles/acres 2-mile corridor acres
Sloan Canyon NCA (Las Vegas FO)	0/0 2,684	N/A	N/A
Black Mountain Wilderness (Las Vegas FO)	N/A	N/A	0/0 1,005
Sunrise Mountain ISA (Las Vegas FO)	1/33 1,312	0/<1 532	0/<1 532
Rainbow Gardens ACEC (Las Vegas FO)	11/326 10,563	3/86 2,590	3/86; 2,590
River Mountains ACEC (Las Vegas FO)	5/149 3,127	0/0 73	N/A

Note: In some instances, there may be “0” miles within a SDA but some acreage of 250-foot-wide ROW disclosed. This is because the reference line (which is identified through “mileage of 250-foot-wide ROW”) does not enter the SDA; however, there is some portion of the 250-foot-wide ROW (as disclosed in acreage) that is still located within the SDA.

<u>Alternative IV-A (Applicant Proposed and Agency Preferred)</u>

BLM SDAs and National Landscape Conservation System Lands

Under Alternative IV-A, the 250-foot-wide transmission line ROW would pass through one ISA and two ACECs. Approximately one mile of the 250-foot-wide transmission line ROW would fall within the 10,240-acre Sunrise Mountain ISA. During construction, up to 33 acres of the ISA would be subject to vegetation removal; surface disturbance areas would include temporary work sites and permanent tower locations. This area is 0.3 percent of the ISA. The ISA is a ROW exclusion area but contains a WWEC-designated utility corridor. The 250-foot-wide transmission line ROW would not be located within the existing designated utility corridor; therefore, it would not be compatible with SDA management. The existing ROW corridor would need to be expanded through a land use plan amendment; however, use of the future corridor would be contingent upon a Congressional action releasing the ISA from further wilderness consideration. An additional 1,312 acres of the 2-mile transmission line corridor also would fall within the ISA. Road development in these areas would not be compatible with SDA management. Within the ISA lie a major paved highway, numerous other roads, transmission lines, and communication sites. The BLM is required to manage the area for wilderness character until the area is released from further consideration by

Congress. The BLM has recommended the release of all acreage for uses other than wilderness, primarily because the area lacks wilderness character.

Approximately 11 miles of the 250-foot-wide transmission line ROW would fall within the 37,620-acre Rainbow Gardens ACEC. This ACEC was established to protect geological, scientific, scenic, cultural, and sensitive plant values and is a ROW avoidance area outside of designated corridors. Of the 11 miles, only about 2 miles would be within BLM or WWEC-designated utility corridors. As a ROW avoidance area, development of a transmission line would still be permitted under SDA management; however, land management actions for the Sunrise Mountain SRMA, which overlays the ACEC entirely, has a management goal to concentrate major transmission line ROWs within the confines of the designated utility corridor to reduce conflicts with recreation and to reduce impacts to scenic resources (BLM 1998; see Section 3.13, Recreation). During construction, up to 326 acres (0.9 percent of the ACEC) would be subject to vegetation removal or surface disturbance that could affect geological, scenic, cultural, or sensitive plant values. Access roads and construction staging areas also could be located within the 2-mile transmission line corridor located within the ACEC (10,563-acres or approximately 28 percent of the ACEC). ACEC management actions would require the reclamation of all temporary roads constructed within the ACEC. Agency-designated avoidance buffers in occupied special status species habitat (see **Appendix C**) would reduce impacts to the sensitive plant values for which the ACEC is managed. Surface disturbance could potentially impact Class III geological and paleontological resources (see Section 3.2, Geology); impacts would be mitigated through compliance with design features and agency BMPs including requiring a paleontological resources mitigation plan for areas known to contain paleontological resources or in areas of high potential for paleontological resources(see **Appendix C**). Adherence to the Project PA would mitigate impacts to cultural resources. There are already several existing transmission lines through Rainbow Gardens ACEC. In areas not within the viewshed of existing transmission structures, this alternative would not comply with BLM VRM Class III management objectives for the ACEC (see Section 3.12, Visual Resources). Application of **SDA-1** would limit surface disturbance within the ACEC to the 326 acres (0.3 percent of the ACEC) required for the transmission line itself and/or restrict new road development to only those areas within the designated corridor. If road development could not be avoided within the full 10,563 acres, application of **SDA-2** (full reclamation of roads) would reduce the long term impacts of road development to scenic values; however, there could still be impacts to geological or cultural values of the ACEC.

Approximately 5 miles of the 250-foot-wide transmission line ROW would fall within the 5,617-acre River Mountain ACEC. This ACEC was designated to protect bighorn sheep habitat and the scenic viewshed for Henderson and Boulder City and is a ROW avoidance area outside of designated corridors. The 250-foot-wide transmission line ROW would be fully within a designated utility corridor through the ACEC; therefore, it would be compatible with SDA management.

During construction, approximately 149 acres (2.7 percent of the ACEC) would be subject to vegetation removal and/or surface disturbance and temporarily removed from use by wildlife; however, because construction would be completed in segments and reclamation would begin immediately (see **Appendix C** design features), the total area that would experience human activity at any one time would likely be smaller. During peak construction, it is likely that bighorn sheep would be temporarily displaced from a larger area than the actual disturbance sites due to the avoidance response (see Section 3.7 for impacts on wildlife). Approximately 3,127 acres of the 2-mile transmission line corridor (56 percent of the ACEC) would fall within the ACEC and could be subject to some level of road and construction support area development, further expanding the area affected by surface disturbance and habitat loss, construction noise, and human activity. TransWest's commitment to implement seasonal restrictions to mitigate impacts on wildlife would assist in reducing impacts to big horn sheep; however, there would be some permanent loss of habitat and fragmentation. ACEC management actions would require the reclamation of all temporary roads. Application of **SDA-1** would limit surface disturbance within the ACEC to the 149 acres (2.7 percent of the ACEC) required for the transmission line itself; however, the visual impacts to the Henderson and Boulder City viewshed from operation of the line would not be mitigated.

Under Alternative IV-A, portions of the 2-mile transmission line corridor would be located within the Sloan Canyon NCA. The 48,800-acre Sloan Canyon NCA is managed to conserve, protect, and enhance the cultural, archaeological, natural, wilderness, scientific, geological, historical, biological, wildlife, educational, and scenic resources of this area. Approximately 2,684 acres of the 2-mile transmission line corridor would fall within the NCA and could be subject to some level of road and construction support area development. This would be approximately 6 percent of the SDA. These portions of the NCA are managed as semi-primitive, non-motorized areas and are classified as VRM II. Therefore, road construction in this area would not be compatible with SDA management. Application of **SDA-1** would eliminate surface disturbance within the ACEC; however, the quality of the uses in the area closest to the 250-foot-wide transmission line ROW would still be temporarily reduced from construction noise and activity. Impacts to Recreation within the NCA are discussed in Section 3.14.

Other Federally Managed SDAs and National Trails

Under Alternative IV-A, portions of the 2-mile transmission line corridor would be located within the Lake Mead NRA. Impacts to Lake Mead NRA are discussed In Section 3.13, Recreation Resources.

Alternative IV-B

BLM SDAs and National Landscape Conservation System Lands

Under Alternative IV-B, approximately 3 miles of the 250-foot-wide transmission line ROW would fall within the 37,620-acre Rainbow Gardens ACEC. Impacts and mitigation would be similar to Alternative IV-A except that during construction, approximately 86 acres of the ACEC (0.2 percent of the ACEC) would be subject to surface disturbance from transmission line construction and approximately 2,590 acres (6.9 percent of the ACEC) of the 2-mile transmission line corridor would fall within the ACEC and could be subject to some level of road and construction support area development.

Under Alternative IV-B, approximately 532 acres of the 2-mile transmission line corridor also would be located within the Sunrise Mountain ISA. This would be 5.2 percent of the ISA. Development of access roads or the use of motorized vehicles would not be compatible with area management. Impacts to wilderness values within Sunrise Mountain ISA would be similar to those discussed under Alternative IV-A. Implementation of **SDA-1** would eliminate potential impacts from road construction.

Approximately 73 acres of the 2-mile transmission line corridor would be located within the River Mountain ACEC. These areas would be subject to some level of road and construction support area development. Impacts from road construction to the relevant and important values of the River Mountain ACEC are discussed under Alternative IV-A. Implementation of **SDA-1** would eliminate potential impacts from the development of access roads.

Other Federally Managed SDAs and National Trails

Under Alternative IV-B, the 250-foot-wide transmission line ROW would be located within the Lake Mead NRA. The NPS has indicated that construction and operation of this alternative is incompatible with NRA management. Impacts to the NRA are discussed in more detail in Section 3.13, Recreation.

Alternative IV-C

BLM SDAs and National Landscape Conservation System Lands

Under Alternative IV-C, Impacts to the Rainbow Garden ACEC would be the same as Alternative IV-B.

Portions of the 2-mile transmission line corridor would also fall within the Sunrise Mountain ISA and Black Mountain Wilderness area. Impacts to Sunrise Mountain would be the same as under Alternative IV-B. Approximately 1,005 acres of the 2-mile transmission line corridor would fall within the 17,220-acre Black Mountain Wilderness area. This acreage would be 5.8 percent of the designated wilderness area. Development of roads or use of motorized vehicles would not be compatible with area management.

TransWest's commitment to comply with agency stipulations (TWE-1) and/or implementation of **SDA-1** would eliminate potential impacts within the wilderness area from road construction; however, the wilderness quality in the areas closest to the 250-foot-wide transmission line ROW could be temporarily reduced during construction from noise and activity.

Other Federally Managed SDAs and National Trails

Under Alternative IV-C, the 250-foot-wide ROW would be located within the Lake Mead NRA. The NPS has indicated that construction and operation of this alternative is incompatible with NRA management. Impacts to the NRA are discussed in more detail in Section 3.13, Recreation.

Alternative Variation in Region IV

The Marketplace Alternative Variation and the portion of Alternative IV-B that this variation would replace would not cross any SDAs.

Alternative Connectors in Region IV

SDAs crossed by the alternative connectors and other key impact parameters are summarized in **Table 3.15-21**.

Table 3.15-21 Impact Parameters of Alternative Connectors in Region IV

	Sunrise Mountain Alternative Connector	Lake Las Vegas Alternative Connector	Three Kids Mine Alternative Connector	River Mountain Alternative Connector	Railroad Pass Alternative Connector
SDAs Crossings	3 miles Rainbow Gardens ACEC 1 mile Sunrise Mountain ISA	1 mile River Mountain ACEC	3 miles River Mountain ACEC	3 miles River Mountain ACEC	0 miles in any SDAs

Region IV Conclusion

Alternative IV-A would have the greatest impacts to Sunrise Mountain ISA and would require Congressional action releasing the ISA from further wilderness consideration before construction could proceed. Alternatives IV-B and IV-C would largely eliminate impacts to the ISA through avoidance of road construction.

Alternative IV-A would have the great impacts to BLM SDAs, with potential impacts to two ACECs and one NCA. Alternative IV-A through the ACECs would be partially within designated corridors; therefore, it would be partially compatible with ACEC management. Impacts to the NCA and ACEC areas outside of designated corridors would be reduced through application of mitigation, including the avoidance of road construction. Alternative IV-C would have less impacts to BLM SDAs, crossing only one ACEC; however, it also would result in temporary indirect impacts (through noise and activity) to one BLM wilderness area. Alternative IV-B would have impacts to one ACEC but would not cross the NCA or have indirect impacts to the wilderness area.

3.15.4.7 Residual Effects

Residual effects to SDAs from the transmission line itself would be the same as those described under each action alternative and would consist primarily of visual impacts and loss of vegetation and wildlife habitat. There would be no residual effect to SDAs from road development if mitigation limiting access to existing roads is applied. In cases where access road development in SDAs would not be fully avoided, but rather limited to existing corridors and/or subject to closure/rehabilitation, residential impacts would include

vegetation loss and visual impacts until reclamation is successful. These impacts would be the same as described under each action alternative. Mitigation related to vegetation maintenance would reduce, but not eliminate, impacts to SDAs that result from vegetation loss during operation of the transmission line.

3.15.4.8 Impacts to Special Designations from the No Action Alternative

Under the No Action Alternative, the Proposed Project would not be developed. There would be no impacts to SDAs beyond existing conditions and trends.

3.15.4.9 Irreversible and Irretrievable Commitments of Resources

All operation impacts to the values of SDAs described above would be irretrievable until transmission line decommissioning, after which time the values of impacted SDAs would be reclaimed. It should be noted, however, that reclamation activities may have limited success in areas with poor soils, some vegetation communities would take years to re-establish, and some areas may never return to their former vegetation cover and composition. As such, these impacts may represent an irreversible commitment of vegetation resources and any SDAs managed for specific vegetation values. Section3.5, Vegetation, contains additional information regarding vegetation reclamation.

3.15.4.10 Relationship Between Local Short-term Uses and Long-term Productivity

Implementation of the Project would result in the use of some SDAs lands as ROW corridors. Long-term productivity of the SDAs would be largely unaffected except for areas where reclamation may have limited success.