

3.0 Affected Environment and Environmental Consequences

This chapter describes the natural and human environment in the areas potentially affected by the Project, and discloses the anticipated impacts from the proposed Project, alternatives, and design options.

Each environmental or human resource section in this chapter contains subsections that discuss the regulatory framework (if applicable), data sources, analysis area, current (baseline) conditions, and impacts. Both the baseline conditions and alternative impacts are disclosed for the four Project regions described in Section 2.5, Alternative Transmission Line Routes and Ancillary Facilities.

Affected Environment

Baseline conditions are described in regional terms to provide an environmental setting. Where possible, resource data were mapped to indicate similarities and differences in resources affected by the Project alternatives. These conditions provide the baseline context for comparison of alternative impacts.

Environmental Consequences

The impact discussion includes specific details regarding the resources that may be affected by the proposed action and alternatives. Direct and indirect impacts to the resources are analyzed and disclosed within this chapter. Cumulative Impacts are disclosed in Chapter 5.0.

The impact topics for each environmental or human resource are discussed in the following order:

- Northern and Southern terminal construction, operation, maintenance, and decommissioning. These facilities are common to all alternatives.
- Impacts common to alternative transmission line route alternatives and their associated components (e.g., access roads, transmission line tower sites, temporary work areas). This includes transmission line construction, operation, maintenance, and decommissioning. For each impact issue, agency stipulations and BMPs and applicant-committed design features (**Appendix C**) were considered at a local level to accurately estimate the degree of Project impacts. If necessary, additional mitigation measures were recommended to further reduce or avoid impacts, and the effectiveness of the mitigation measures were described. Conclusion statements summarize the anticipated residual impacts.
- Quantified impact levels were tabulated for comparison by alternative within each Project region, and impacts unique to each region were described. A residual impact conclusion is provided for each major route alternative within each region to allow for comparisons among alternatives. Impact levels and comparisons among route variations, route connectors, and ground electrode sites also are provided, depending on regional location.
- The estimated impacts of design options are provided, based on available information.
- The effects of the No Action Alternative (continuation of current trends) are provided for each resource.

Each resource section contains an analysis of the direct and indirect impacts of Project components based on the specific impacts that may occur. In addition, a general approach and methodology for determining an impact parameter for direct impacts such as ground disturbance from construction and operation (including maintenance) was developed and used for many resources. Because the specific

location of Project facilities (e.g., access roads, transmission line tower sites, temporary work areas, terminal locations, and electrode bed sites) has not been finalized, preliminary engineered alignments have been analyzed. This analysis is based on Transwest-provided acreages of the disturbance necessary to develop transmission line segments according to assumptions (see **Appendix D**). Additionally, refined transmission corridors were defined to indicate the area within which the alignments may shift in response to resource constraints identified during pre-construction surveys. For the purposes of analysis, a 250-foot-wide transmission line ROW was assumed to be centered on these preliminary engineered alignments. This 250-foot-wide transmission line ROW allows for the quantification of Project impacts and relative comparison between alternatives. Shifts in this 250-foot-wide transmission line ROW would be identified prior to construction to avoid or minimize resource impacts and facilitate compliance with required design features and mitigation measures. The area of temporary construction facilities and temporary and permanent access roads (generally within 1 mile from each side of the alignments) also have been analyzed. Exact locations of these facilities have not been defined at this time; however conservative estimates of impacts for these facilities and access roads are disclosed. Locations for any other permanent surface facilities located outside of the 1-mile distance from the alignment, including terminals and electrode beds, are identified and impacts are disclosed by component.

The impact parameter methodology used GIS analyses to characterize the resources in areas identified as potential disturbance locations (e.g., 250-foot-wide transmission line ROW, refined transmission corridor, and temporary construction facilities and access road areas). The resource characterizations were applied as a ratio to the disturbance acreages by transmission line segment. A simplified example follows: Assuming the 250-foot-wide transmission line ROW for Segment 1 consists of 40 percent grassland and 60 percent shrubland, and TransWest identifies 10 acres of disturbance within the ROW during construction, then this methodology quantifies 4 acres of grassland and 6 acres of shrubland disturbed in the ROW during construction.

This ratio approach was applied to each of the potential disturbance areas and Project component, and the quantities were totaled for each segment. Additional 250-foot-wide transmission line ROW clearing was calculated as the remainder of the total ROW area after construction disturbance occurs. Then, the impacts of segments comprising the regional alternatives identified in the EIS were summed (see Section 2.5, Alternative Transmission Line Routes and Ancillary Facilities). The result is an estimate of the total disturbance to the specific resource by regional alternative.

Chapter 3.0 analyzes impacts without mitigation, after which it discloses the effectiveness of applicant committed best management practices, agency land management stipulations, and proposed mitigation in minimizing or reducing those impacts. For the purposes of analysis, Chapter 3.0 assumes that all agency stipulations and proposed mitigation would be enforced on public lands. Additionally, TransWest has committed to implement all required measures to ensure compliance with all applicable federal and state regulatory requirements (TWE-1 and TWE-2, **Table C.2-1, Appendix C**). Based on this commitment, Chapter 3.0 also assumes the implementation of applicant committed best management practices and agency-proposed mitigation measures to minimize or reduce resource impacts and meet applicable regulatory requirements on private land. The determination of what is appropriate for private land would be made by the agency with jurisdictional authority or relevant federal nexus to the action taking place on private land. That determination would include all measures the agency(s) deem necessary to ensure compliance with all applicable state and federal laws and regulations.