3.12 Visual Resources

This section describes the affected environment and impact assessment based on construction, operation, and maintenance of the Project in each of the four geographic regions. Visual resources are defined as the visible features of the landscape. The affected environment and impact assessment were focused within a 5-mile visual study corridor for non-forested landscapes and a 20-mile corridor for forested landscapes centered on the reference line for each alternative route under consideration within this EIS. The affected environment and impact assessment methodology, including the locations of key observation points (KOPs), was developed and approved in consultation with the BLM and USFS. **Appendix I** contains details that support this section, and **Figure I-1** depicts the Project viewshed and KOP locations.

3.12.1 Regulatory Background

3.12.1.1 Federal Land Policy and Management Act as amended

The FLPMA of 1976 (90 Stat. 2743; 43 U.S.C. 1601, et seq.) established BLM as the jurisdictional agency for expanses of land in the West to be managed as multiuse lands. The following sections of the FLPMA relate to the management of visual resources on federal lands:

> § 102(a): "The public lands [shall] be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values."
>
> § 201(a): "The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resources and other values (including…scenic values)."
>
> § 202(c)(1-9): "...in developing land use plans, the BLM shall use…the inventory of the public lands; consider present and potential uses of the public lands, consider the scarcity of the values involved and the availability of alternative means and sites for realizing those values; weigh long-term benefits to the public against short term benefits."
>
> § 505(a): "Each right-of-way shall contain terms and conditions which will … (ii) minimize damage to the scenic and esthetic values" (BLM 2001).

3.12.1.2 BLM Resource Management Plans

The BLM manages land under its jurisdiction according to the goals and policies outlined in the RMPs. VRM classifications are developed by BLM based on landscape character, scenic quality, sensitivity levels, distance zones, and management direction as outlined in BLM Manual H-8410 (BLM 1986). Each of four VRM classes has an objective that prescribes the amount of change allowed in the characteristic landscape, ranging from Class I-no change to Class II-minor change, Class III-moderate change, and Class IV-major change (BLM 1986). Compliance with VRM classes is determined by comparison of the objective of the applicable class with the effects of the Project.

3.12.1.3 National Forest Land and Resource Management Plans

The LRMP guides all natural resource management activities and establishes management standards and guidelines for scenery within the national forests. The LRMP outlines SIOs and VQOs which prescribe the level of visible change allowable within forest boundaries. Scenic Classes are determined based on distance zones, concern level, and existing scenic integrity and managed to ensure that changes and development fit with existing type, form, line, color, and texture (USFS 1996). The five SIO or VQO categories are: Very High (unaltered-Preservation VQO), High (appears unaltered-Retention VQO), Medium (appears slightly altered-Partial Retention VQO), Low (moderately altered-Modification VQO), and Very Low (highly altered-Maximum Modification VQO) (USFS 1996). Consistency with SIOs and VQOs is

determined by comparison of the objective or integrity level of the applicable VQO or SIO, respectively, with the effects or alteration caused by the Project.

3.12.1.4 National Trails System Act

National Trails were established under the National Trail System Act of 1968 (16 U.S.C. §1241-51), designating and protecting national scenic trails, national historic trails, and national recreational trails. National trails are administered by BLM, the NPS, and the USFS; these agencies provide coordination and oversight for the entire length of a trail. However, as these trails traverse both public and private lands as well as lands controlled by various agencies, on-site management activities are performed by the jurisdictional agency, the state, or the landowner (NPS 2008).

3.12.1.5 National Historic Preservation Act

The NHPA includes language protecting the visual integrity of sites listed or eligible for the National Register of Historic Places: "Examples of adverse effects…include…introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features…" (36 CFR Part 800.5). Impacts to visual resources protected by the NHPA are discussed in Section 3.11, Cultural Resources and Native American Concerns.

3.12.2 Data Sources

3.12.2.1 Visual Resource Inventory

Existing VRIs were available for BLM lands. The landscape scenery and sensitive viewer inventory and mapping are unavailable for private and state lands in the project area or for the Ashley National Forest, Fishlake National Forest, Manti-La Sal National Forest, and Uinta National Forest. The inventory report for the Dixie National Forest was prepared for purposes of the Sigurd-Red Butte Transmission Project (2010) and obtained for the Project from the USFS. The methodology used to establish landscape scenery and sensitive viewers inventory and mapping for the Project included hand-digitizing from detailed aerials, data download from USGS and ReGap, GIS spatial analyses and field verification.

Localized physiography and land surface forms mapping (*New Map of Standardized Terrestrial Ecosystems of the Conterminous United States* [USGS, 2009]) was used to delineate landscape scenery rating units for the landscape scenery inventory. These scenery quality rating units were evaluated based on landform, water, vegetation, geology, land use and land cover sources, including Northwest and Southwest ReGap, and digital terrain data.

Sensitive viewers' locations, including residences and recreation sites, were hand-digitized in all areas within a 10-mile corridor. Navigable waterways, trails, and roads were included in the inventory.

Project-specific visibility and distance zone analyses and mapping were conducted in GIS (ArcGIS).

<u>Landscape Scenery</u>

Landscape scenery for the Project portrays the aesthetic value of landscapes on BLM, private, state and USFS lands. Scenic quality is defined by the BLM as the visual appeal of a tract of land (BLM 1986). BLM lands are rated Class A, Class B, and Class C, for highest to lowest scenic quality. Scenic attractiveness is defined by the USFS as the intrinsic scenic beauty of the landscape in a particular landscape character (USFS 1995). USFS lands are rated Class A-Distinctive, Class B-Common, and Class C-Indistinctive, for highest to lowest scenic attractiveness. Please see **Appendix I**, **Table I-1** for milepost locations and **Figure I-2** for map locations of Class A, B, and C scenery on BLM lands, for Class A-Distinctive, Class B-Common, and Class C-Indistinctive scenery on USFS lands, and for Class A-High, Class B-Medium, and Class C-Low in private lands. Scenic quality ratings were conducted at a 10-mile corridor-specific scale for USFS (with exception of Dixie National Forest), state, and private lands (**Appendix I, Table I-1** and **Appendix I**, **Figure I-3**), employing methods similar to the inventory systems of the BLM and USFS.

View distance, vegetation, topographic slopes, and characteristic landscape (particularly, the presence or absence of existing cultural modifications), play important roles in the assessment of change caused by the Project on landscape scenery.

Sensitive Viewers

Sensitive viewers' analysis and mapping for the Project encompasses public and private viewer's concern for landscape scenery. Sensitivity levels are defined by the BLM as the measure of public concern for scenic quality. Public lands are assigned high, medium, or low sensitivity levels (BLM 1986) (**Appendix I**, **Table I-2**). The USFS's constituent analysis is similar in intent. Constituent analysis leads to a determination of the relative importance of aesthetics to the public; this importance is expressed as a concern level. Sites, travelways, special places, and other areas are assigned a Concern Level value of 1, 2, or 3 to reflect the relative High, Medium, or Low importance of aesthetics (USFS 1995). Please see **Appendix I**, **Table I-3** and **Table I-4** for locations by alternative, segment, and milepost for High Sensitivity and Moderate Sensitivity Viewers, and **Appendix I, Figure I-4** for locations of mapped sensitivity levels.

View distance plays an important role in the assessment of change caused by the Project on sensitive viewers.

Distance Zones

Distance zones are defined by the BLM as relative visibility from travel routes or observation points. The three zones are foreground-middleground, background, and seldom seen. All BLM Field Offices' visual resource inventories show all distance zones as foreground-middleground throughout the field office. The foreground-middleground zone includes areas seen from highways, roads, trails, rivers, or other viewing locations that are less than 3 to 5 miles away. Seen areas beyond the foreground-middleground zone, but usually less than 15 miles away, are in the background zone. Areas not seen (hidden from view) in the foreground-middleground or background are designated as seldom-seen (BLM 1986). The USFS approach applies seen areas and distance zones as mapped from 1, 2, or 3 concern level areas to determine the relative sensitivity of scenes based on their distance from an observer; these zones are identified as foreground (up to 0.5 mile from the viewer), middleground (up to 4 miles from the foreground), and background (4 miles from the viewer to the horizon) (USFS 1995).

The distance and visibility analyses for the Project are based on visibility factors of the TWE structures, conductors, and ROWs and divided into four zones as follows: 1) immediate foreground (0 to 0.5 mile); foreground (0.5 to 2.5 miles); middleground (2.5 to 5.0 miles); and background (greater than 5 miles). These distances and viewsheds are integral to the Viewer Sensitivity analyses and shown in **Appendix I**, **Figures I-5** and **I-6** and **Appendix I, Tables I-3** and **I-4** for milepost information based on distance zones.

Visual Resource Inventory Classes

VRI classes represent the relative value of the visual resources and provide the basis for considering visual values in the resource management planning process. VRI Classes II, III, and IV are determined based on a combination of scenic quality, sensitivity level, and distance-zone overlays. Class II has a higher level of value than Class III, which is moderately valued. Class IV is least valued. A fourth VRI class, Class I, is assigned to special management areas. This includes Wilderness Areas or Wilderness Study Areas, Wild and Scenic Rivers, National Recreation Areas and other congressionally and administratively designated areas where decisions have been made to preserve a natural landscape. Please see **Appendix I**, **Table I-5** for VRIs by alternative, segment and milepost, and **Appendix I**, **Figure I-7** for map locations of VRI classes.

3.12.2.2 Agency Management Objectives and Local Planning

The RMP land use planning process results in VRM class assignments for all BLM-administered lands. The recent visual resource inventories have not yet been included in the BLM RMPs. VRM classes

(**Table 3.12-1**) are based on visual resource inventories and management decisions that must take into consideration the value of visual resources. Please refer to **Appendix I**, **Table I-6** for VRM locations by alternative, segment, and milepost.

Table 3.12-1 BLM Visual Resource Management Class Objectives

Class I Objective	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
Class II Objective	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic (design) elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
Class III Objective	The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
Class IV Objective	The objective of this class is to provide for management activities, which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic (design) elements.

Source: BLM 1986.

SIOs (**Table 3.12-2**) establish limits of acceptable human alteration in form, line, color, and texture as the landscape moves toward a landscape character goal. SIOs are assigned for all USFS-administered lands through the national forest planning process. However, the forest plans in the Project area have not yet been updated with scenic integrity objectives. With exception of the Dixie National Forest, the forest plans do include VQOs, which predate the current SIOs. These objectives are based on visual inventories and management decisions made in forest plans, which must take into consideration the value of scenery. At present, the Dixie National Forest and Fishlake National Forest have established SIOs, and the Ashley National Forest, Manti-La Sal National Forest, and Uinta National Forest have VQOs.

Table 3.12-2 USFS Scenic Integrity Objectives

Very High (SIO) or Unaltered-Preservation (VQO)	Very high scenic integrity refers to landscapes where the valued landscape character "is" intact with only minute if any deviations. The existing landscape character and sense of place is expressed at the highest possible level.
High (SIO) or Appears Unaltered-Retention (VQO)	High scenic integrity refers to landscapes where the valued landscape character "appears" intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.
Moderate (SIO) or Slightly Altered-Partial Retention (VQO)	Moderate scenic integrity refers to landscapes where the valued landscape character "appears slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Low (SIO) or Moderately Altered-Modification (VQO)	Low scenic integrity refers to landscapes where the valued landscape character "appears moderately altered." Deviations begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed, but also compatible or complimentary to the character within.

Table 3.12-2 USFS Scenic Integrity Objectives

Very Low (SIO) or Highly Altered-Maximum Modification (VQO)	Very low scenic integrity refers to landscapes where the valued lands appears heavily altered." Deviations may strongly dominate the valued landscape character. They may not borrow from valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles within or outside landscape being viewed. However deviations must be shaped and blended with the natural terrain (landforms) so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.

Source: USFS 1995.

Refer to **Appendix I**, **Table I-7** for SIO and VQO locations by alternative, segment, and milepost, and **Appendix I**, **Figure I-8** for map locations of visual resource management classes and scenic integrity objectives or visual quality objectives.

3.12.3 Analysis Area

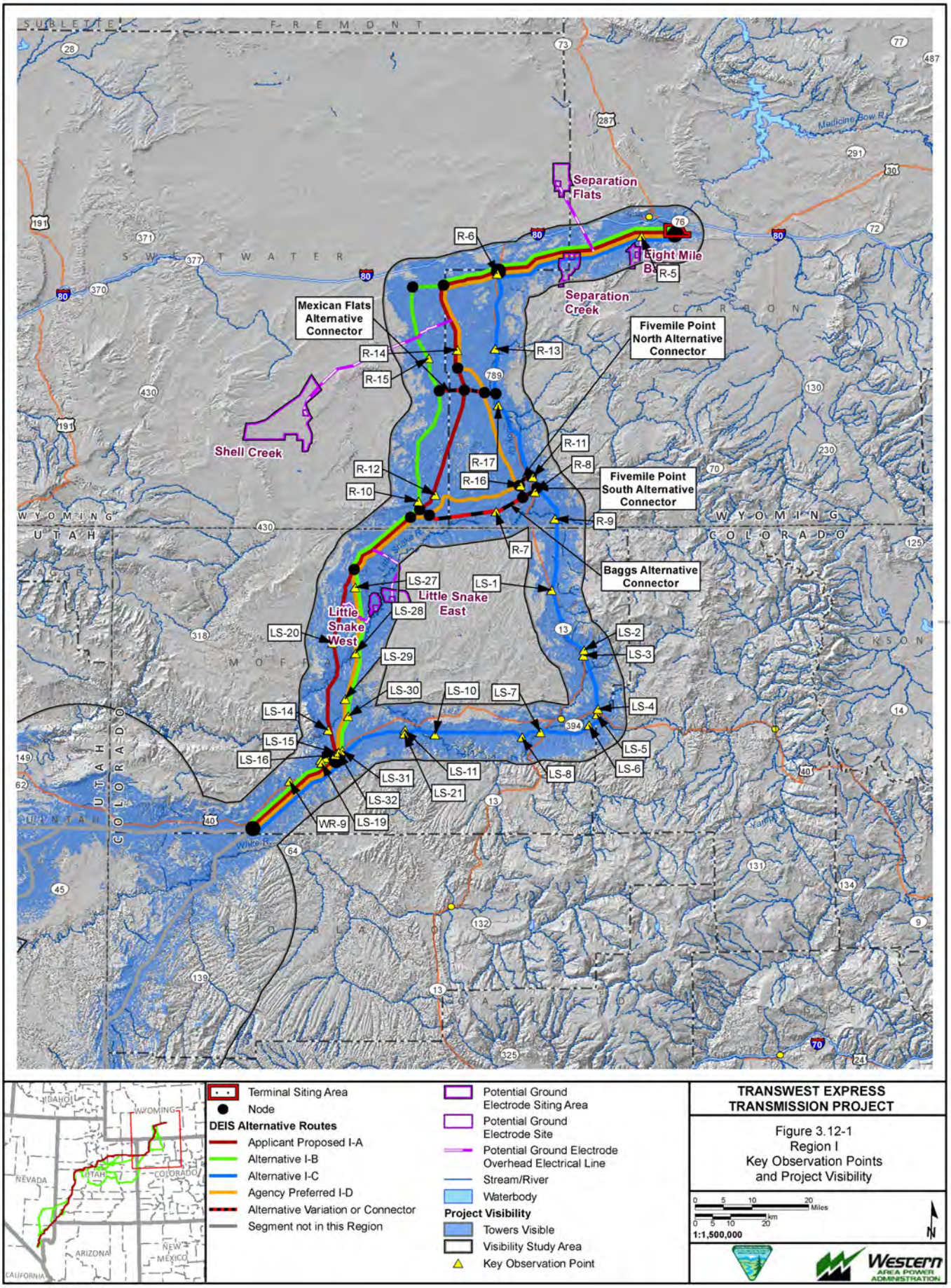
The analysis area is comprised of the viewsheds of the Project's reference lines out to 20 miles in locations where they cross tree-covered landscapes and out to 5 miles in shrub, grassland, and cropland landscapes. The difference in the two distances is based on visibility of cleared vegetation in ROWs in forested landscapes (20 miles) versus the visibility of only the transmission line structures and conductors (5 miles) in locations with no requirement for clearing of trees. Please see **Figures 3.12-1** through **3.12-4** for extents of the analysis area and the Project (also depicted in **Appendix I**, **Figure I-1**).

3.12.4 Baseline Description

Locations, natural features, and cultural elements of Physiographic Provinces surrounding the Project are depicted in **Appendix I** as **Figure I-9**. Detailed listings, by region and segment, of public places, roads, historic trails, towns, scenic overlooks, rivers, recreational sites and areas, and designated scenic byways and backways, within 0.5 mile (immediate foreground viewshed) of the Project are located in each regional impact section.

3.12.4.1 Developed and Natural Settings

The majority of the Project would cross developed landscapes. **Appendix I**, **Figure I-10** shows the Project's reference lines and developed and natural settings. Forty-three percent (1,082 miles) of the Project reference lines (2,502 miles) are located within one/half mile of one or more existing electrical transmission lines. **Appendix I**, **Table I-8** shows this information by milepost. **Appendix I**, **Table I-9** shows the visual contrasts of the Project's guyed and self-supported structures in connection with existing transmission line structures. Other human-made developments situated in close proximity to the Project include agricultural fields and structures, commerce, oil and gas developments, pipeline rights-of-way, railroads, industrial, residences, and roads. Portions of the Project traverse natural landscapes in viewsheds that contain little development beyond roads or trails. These include: the Cedar Breaks Draw (Segment 120) and Colloid Draw (Segment 115.07) viewsheds and Muddy Creek viewsheds (Segments 140, 140.05, and 190) northwest and north, respectively, of Baggs in Wyoming; the Sand Wash Basin (Segment 180.2), Seven Mile Ridge (Segment 180.2 and 186), Little Snake River (Segments 180.2 and 186), Nine Mile Basin (Segment 186), Peck Mesa (Segments 180.2 and 186), and portions of the Yampa River/Cross Mountain (Segments 180.2 and 186) viewsheds west of Craig and Davis Canyon and Texas Creek viewsheds (Segment 220.1) north of Baxter Pass in Colorado; the Nine Mile Canyon, Electric Lake,



Terminal Siting Area
Node
DEIS Alternative Routes
Applicant Proposed I-A
Alternative I-B
Alternative I-C
Agency Preferred I-D
Alternative Variation or Connector
Segment not in this Region
Potential Ground Electrode Siting Area
Potential Ground Electrode Site
Potential Ground Electrode Overhead Electrical Line
Stream/River
Waterbody
Project Visibility
Towers Visible
Visibility Study Area
Key Observation Point

TRANSWEST EXPRESS TRANSMISSION PROJECT

Figure 3.12-1
Region I
Key Observation Points and Project Visibility

0 5 10 20 Miles
0 5 10 20 km
1:1,500,000

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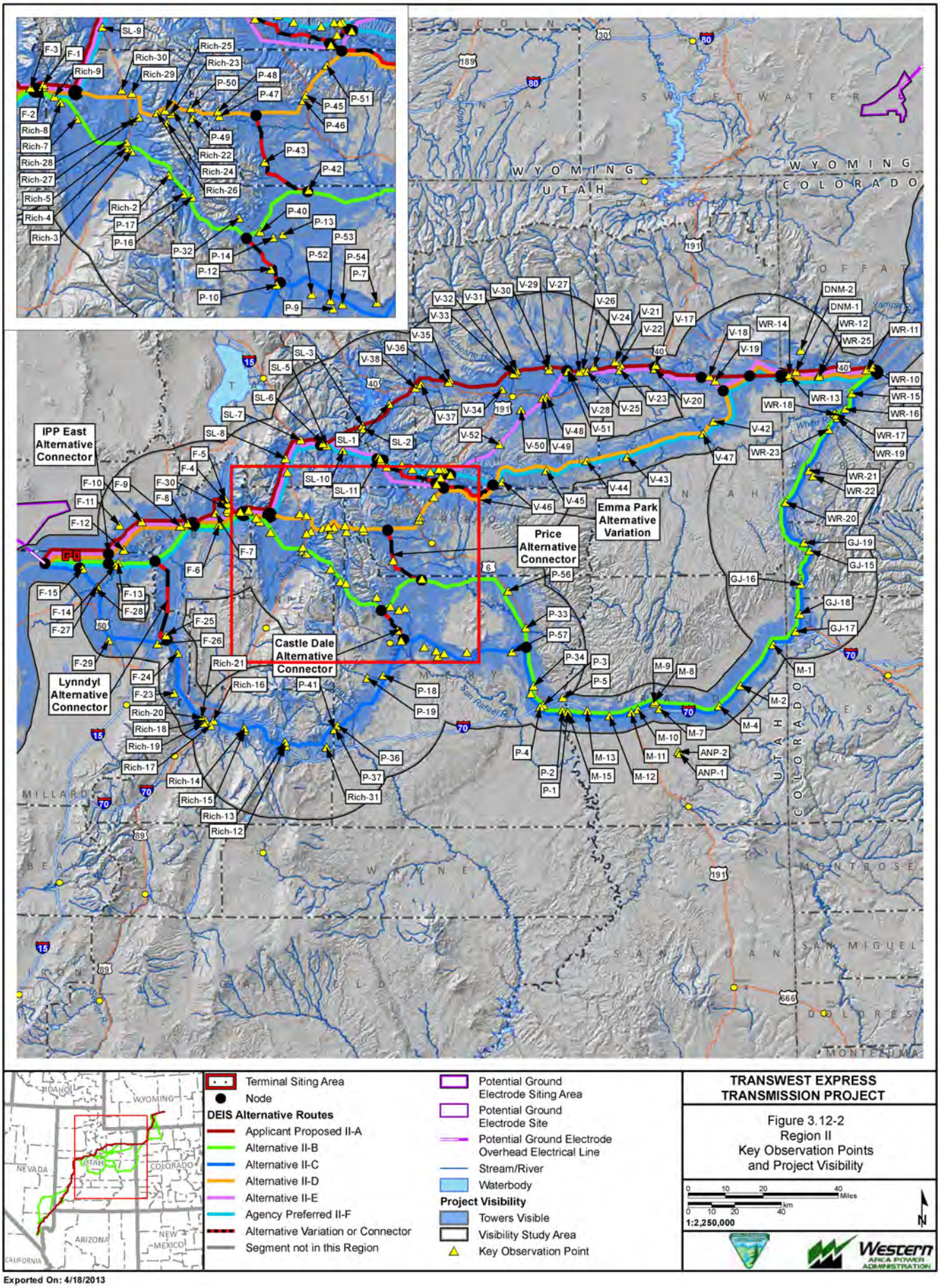

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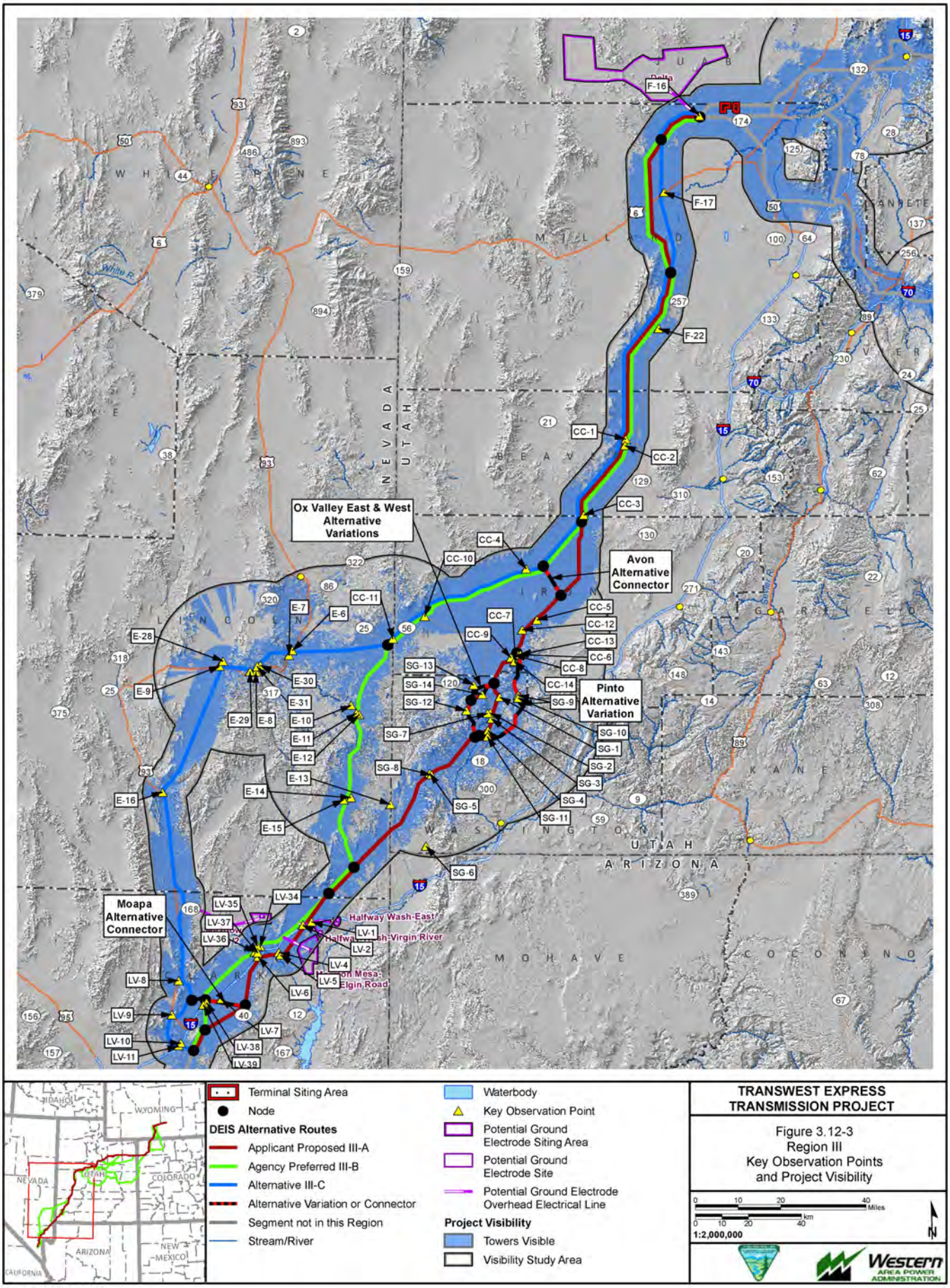

TRANSWEST EXPRESS TRANSMISSION PROJECT

Figure 3.12-3
Region III
Key Observation Points and Project Visibility

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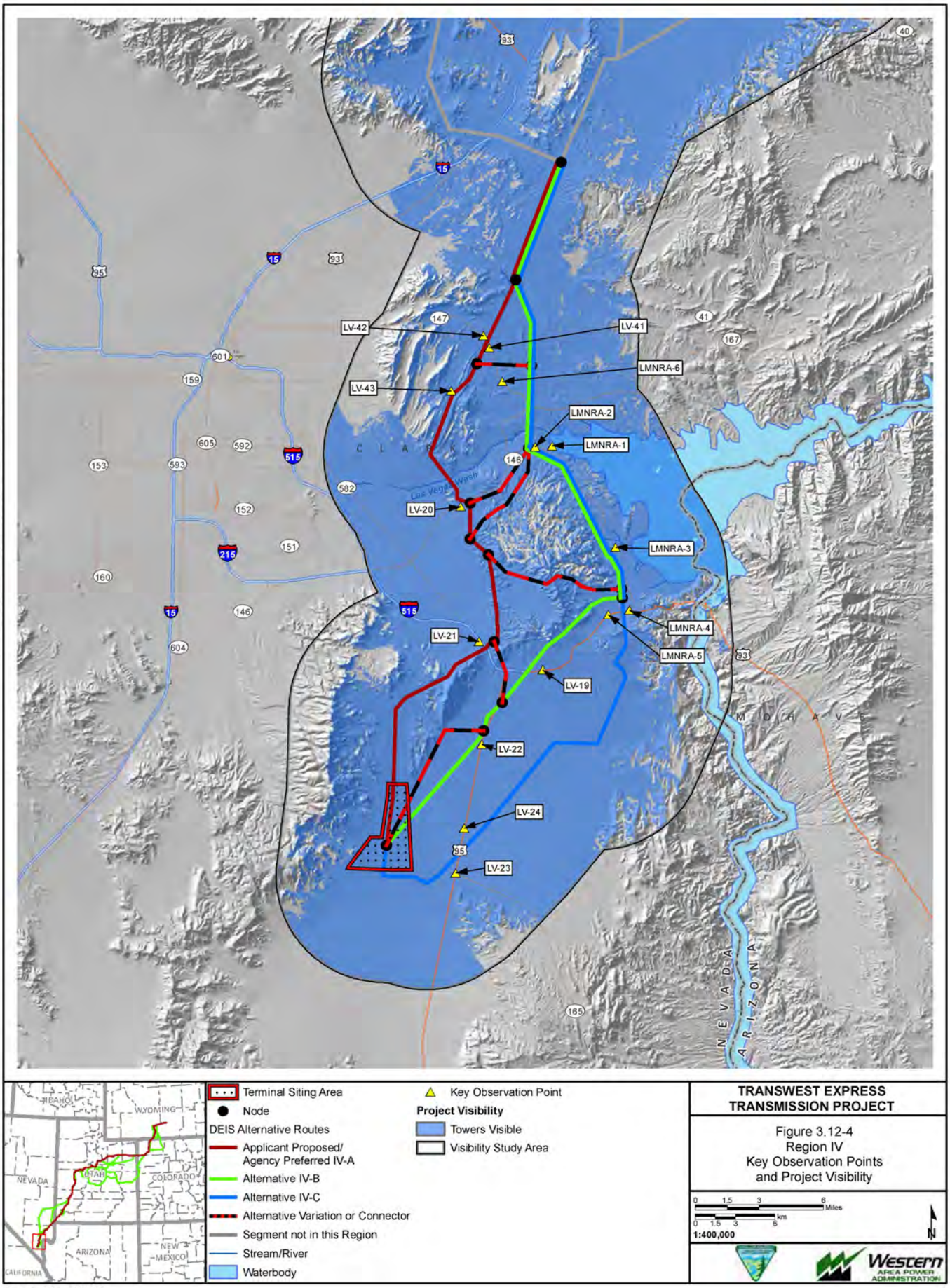

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and Fairview Canyon viewsheds (Segment 217.15), Cisco Desert viewsheds (Segment 220.1), Dry Mesa and Chimney Rock viewsheds (Segment 225.2), Ox Valley viewsheds (Segment 505), and Pinto viewsheds (Segment 506) in Utah; all of the viewsheds, including those of the Silver State Trail (Segments 520) and Rainbow Backcountry Byway (Segment 510) north, west, east, and southeast of Caliente in Nevada; and the Rainbow Gardens viewshed (Segment 660) between Lake Mead National Recreation Area and Henderson, Nevada.

3.12.5 Regional Summary

The Project's setting intersects the high plains, mountains, plateaus, valleys, and desert landscapes of Wyoming, Colorado, Utah, and Nevada, respectively. Landscape character is identified and described by the combination of the scenic attributes that make each landscape identifiable or unique. A region's landscape character creates a "Sense of Place," and describes the visual image of an area. The Study area's landscape character is defined by the landforms, vegetation, water, and cultural features of the following physiographic provinces (Fenneman 1931): Wyoming Basin Province, Uinta Basin section of the Colorado Plateaus Province, Northern Canyonlands section of the Colorado Plateaus Province, Middle Rocky Mountains Province, High Plateaus of Utah section of the Colorado Plateaus Province, Great Basin section of the Basin and Range Province, and Sonoran Desert section of the Basin and Range Province.

3.12.5.1 Wyoming Basin Province (Region I)

The Wyoming Basin Province is intersected by the Project in northwestern Colorado and southern Wyoming. Project jurisdictions include the Little Snake FO and Rawlins FO. The characteristic landscape is typified by a broad, open plain interrupted by linear escarpments, rolling hills and low mountains. Elevation ranges from 6,000 to 8,000 feet. Vegetation types are mostly grass, sage, rabbit brush, and greasewood with juniper and pinyon pine on higher-elevation slopes. Riparian vegetation, especially cottonwood and willow, is common along the Yampa River and the Little Snake River. These are both recreation rivers. Cultural features in the analysis area include the National Historic Old Cherokee Trail, Continental Divide Trail, Lincoln Highway, and National Historic Overland Trail. Baggs, Craig, Maybell, Rawlins, Sinclair, and Wamsutter are viewer population centers. Major roads with viewing opportunities are Interstate 80, Wyoming SH 70 from Baggs to Encampment, Wyoming SH 789 from Baggs to I-80, U.S. 40, Colorado State Highways 13 and 395, and numerous recreational BLM and county roads. Designated scenic roads include the Battle Scenic Highway from Baggs to Encampment; the Outlaw Trail Scenic Highway from Baggs to I-80; and the Dinosaur Diamond National Scenic Byway from Vernal to I-70.

3.12.5.2 Uinta Basin Section of the Colorado Plateaus Province (Region I and Region II)

The Uinta Basin Section of the Colorado Plateaus Province is intersected by the Project in western Colorado and northern Utah. Project jurisdictions include the Little Snake FO, Salt Lake FO, Vernal FO, White River FO, Ashley National Forest, and Uinta National Forest. The characteristic landscape is defined by low mountains, rolling hills, and broad valleys. Elevation ranges from 6,200 to 7,300 feet. Vegetation types include juniper-pinyon woodlands and saltbush-greasewood and grasslands-shrubs with big sagebrush. Dinosaur National Monument's lower visitor center and middle and upper scenic overlooks are within the viewshed of the analysis area. Major recreational rivers include the Green River, Duchesne River, Strawberry River, and Currant Creek. Water-related recreational facilities include the Bottle Hollow Reservoir, campground, and boat launch; San Rafael River boat launch and overlook; and Starvation Reservoir, campground, beach, and boat launch. Cultural features in the Project area consist of Dinosaur, Duchesne, Roosevelt, and Vernal, which are major viewer population centers. Major roads with viewing opportunities include Colorado SH 64, Utah SH 35, Utah SH 45, Utah SH 87, Utah SH 88, and Utah SH 208. Designated scenic roads include Brown's Park Road Scenic Backway; Dinosaur Diamond Scenic Byway/U.S. Highway 40; and Jones Hole Road Scenic Backway.

3.12.5.3 Northern Canyonlands Section of the Colorado Plateaus Province (Regions I and II)

The Northern Canyonlands Section of the Colorado Plateaus Province is intersected by the Project in western Colorado and eastern Utah. Project jurisdictions include the Grand Junction FO, Moab FO, and Price FO. The characteristic landscape is defined by steep, sheer-walled canyons, canyonlands, linear cliffs, low plateaus, mesas, buttes, and badlands. The region's major landforms are the San Rafael Swell and Book Cliffs and overall elevation ranges from 4,200 to 12,700 feet. Vegetation types are blackbrush, juniper-pinyon woodlands, saltbush-greasewood, and shrub steppe. The Colorado River and Green River are major visual and recreational destinations of the region. Cultural features in the analysis area consist of numerous pictograph sites. Viewer population centers include Green River, Thompson Center, and Ferron. The Huntington Lake State Park, beach, and campground is located within view of the Project. Major roads with viewing opportunities include I-70, U.S. 6, Utah SH 10, Utah SH 31. Designated scenic roads include: Dinosaur Quarry-Cedar Overlook Scenic Backway; Energy Loop-Huntington-Eccles Canyons Scenic Byway; Wedge Overlook-Buckhorn Drive Scenic Backway; and Old Railroad Grade/pictograph access.

3.12.5.4 Middle Rocky Mountains Province (Region II)

The Middle Rocky Mountains Province is intersected by the Project in western Colorado and northern Utah. Project jurisdictions include the Little Snake FO, Richfield FO, Salt Lake FO, Vernal FO, and Ashley National Forest, Manti-La Sal National Forest, and Uinta National Forest. The characteristic landscape is defined by steep mountains and inclined to flat valleys, with elevations ranging from 5,000 to 8,000 feet. Vegetation types include the spruce-fir, aspen and ponderosa pine, mountain shrub, valley grassland, and riparian communities. Recreational features in the analysis area consist of the Indian Creek and Potters Ponds Campgrounds and recreational facilities associated with Cleveland Lake, Electric Lake, Fairview Lakes, Huntington Reservoir, and Joe Reservoir. Major roads with viewing opportunities include U.S. Highway 6, U.S. Highway 87, Utah SH 31, Utah SH 264, and Utah 764. Designated scenic roads include the Skyline Drive Scenic Backway and Strawberry-White River Scenic Backway.

3.12.5.5 High Plateaus of Utah Section of the Colorado Plateaus Province (Region II)

The High Plateaus of Utah Section of the Colorado Plateaus Province is intersected by the Project in central Utah. Project jurisdictions are the Richfield FO, and Fishlake National Forest, and Manti-La Sal National Forest. USFS campgrounds and recreational locations in the affected environment include the Maple Grove Campground and Scipio Lake. Viewer population centers include Aurora and Mount Pleasant. Major roads with viewing opportunities include I-70, U.S. 89, U.S. 50, and numerous recreational roads. Designated scenic roads include the Gooseberry-Fremont Road Scenic Backway, Skyline Drive Scenic Backway, and Bitter Springs Backcountry Byway.

3.12.5.6 Great Basin Section of the Basin and Range Province (Region II and Region III)

The Great Basin Section of the Basin and Range Province is intersected by the Project in western Utah and eastern Nevada. Project jurisdictions include the Cedar City FO, Caliente FO, Fillmore FO, Las Vegas FO, Richfield FO, and St. George FO, and Dixie National Forest, Fishlake National Forest, and Manti-La Sal National Forest. The characteristic landscape is defined by steep mountain ranges and wide, flat valleys. Elevation ranges from 3,000 to 10,000 feet. Vegetation types are sagebrush, juniper-pinyon woodlands, dwarf-cedar, mountain mahogany, and saltbush-greasewood. The towns of Caliente, Central, Enterprise, Newcastle, and Pinto represent viewer population centers. Recreational viewer locations include the Little Sahara Recreation Area and Newcastle Reservoir. Cultural features include the Antelope Springs-Old Spanish Trail and Mountain Meadows Massacre Site and Overlook. Major roads with viewing opportunities include I-15, U.S. 50, U.S. 93, U.S. 95, U.S. 93/95, Nevada SH 40, Nevada SH 55, Nevada SH 147, Nevada SH 168, Nevada SH 319, Utah SH 18, Utah SH 21, Utah SH 56, Utah SH 100, Utah SH 132, Utah SH 174, and Utah SH 257. The Silver State Trail is crossed by the Project and its trailheads are located within the Project's immediate foreground viewsheds. Designated scenic roads include the Mojave Desert-Joshua Tree Scenic Backway and Rainbow Backcountry Byway.

3.12.5.7 Sonoran Desert Section of the Basin and Range Province (Region IV)

The Sonoran Desert Section of the Basin and Range Province is intersected by the Project in southern Nevada. The Project jurisdiction is the Las Vegas FO. The characteristic landscape is defined by steep, arid, widely separated short mountain ranges in desert plains, fans, and terraces. Elevation ranges from 300 to 3,500 feet. Lake Mead is the major water formation in the region and the McCullough Mountain Range, Highland Range, and Eldorado Valley are the major landforms. Vegetation communities include palo verde, creosote bush, saguaro, mesquite series, and bursage. The Colorado River is the major visual and recreational destination in the region. Cultural features in the analysis area include the National Historic Old Spanish Trail. Lake Mead, Lake Mead National Recreation Area, and Valley of Fire State Park are major recreational viewing opportunity areas. Viewer population centers include Boulder City, Henderson, and Las Vegas. Numerous recreational roads, recreational sites, and hiking trails are associated with these communities and recreation areas. Roads with viewing opportunities include U.S. 93, U.S. 95, U.S. 93/95, Nevada SH 146, Nevada SH 147, Nevada SH 166, and Nevada SH 582.

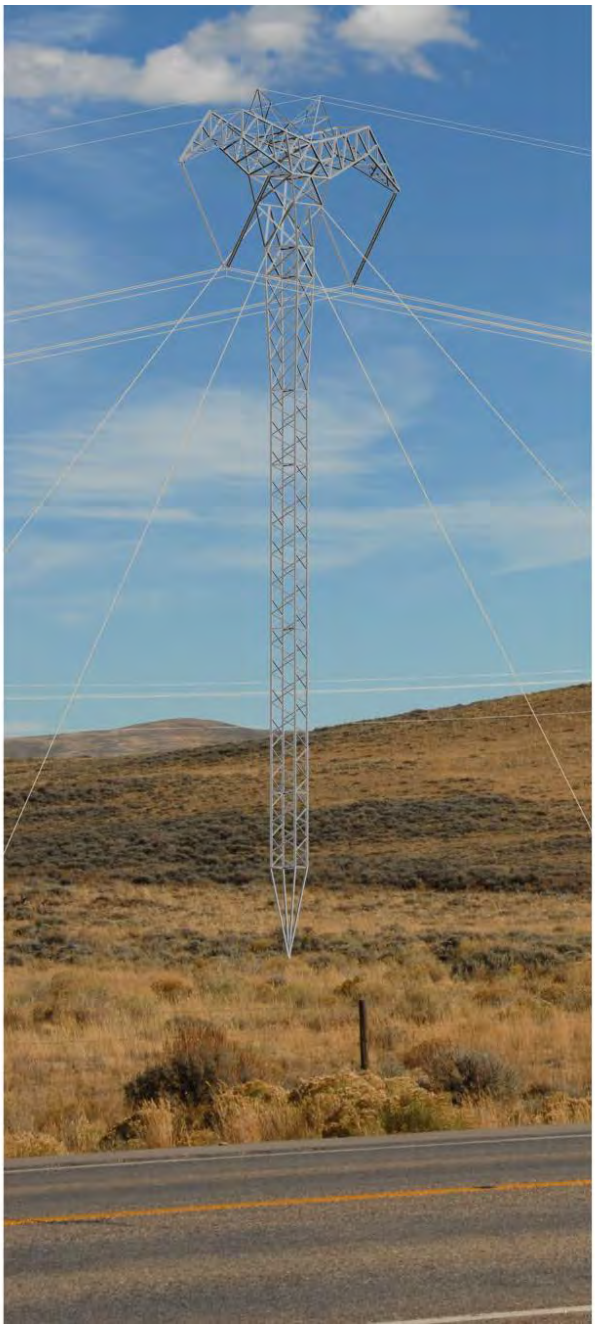
3.12.6 Impacts to Visual Resources

Potential impacts to visual resources were identified through BLM and USFS consultation and public scoping. These include potential impacts to people (the viewing public), impacts to scenery, and compliance with BLM visual resource management objectives or consistency with USFS scenic integrity or visual quality objectives.

Visual resources impacts would occur during the construction phase of the project and be caused by vegetation clearing within the ROW and ground disturbance for access roads, transmission line, terminal, and electrode bed construction. Impacts would continue into the operational phase with visibility of structures, overhead conductors, cleared ROWs in tree-covered landscapes, access roads, terminal areas, and electrode bed areas and associated roads and small voltage (nn-kV) electrical lines. Visible elements would be steel lattice guyed towers (with four guy wires), and/or tubular pole towers, steel lattice free-standing towers, up to 180 feet in height, two sets of three (bundled) electrical conductors, not less than 38 feet above the ground, and two shield wires connecting the tops of the towers. The guyed towers are constructed along tangents (straight lines) of the ROW at 1,200- to 1,500-foot spans and the free-standing towers are constructed at the points-of-intersection (angles) and any spans greater than 1,500 feet. This latter detail becomes a compliance issue when applying mitigation **VR-3** (see Section 3.12.6.3), due to the need to replace guyed structures with self-supporting structures for spans greater than 1,500 feet. The larger, more contrasting self-supported structures increase visual impact. Impacts of the decommissioning phase would be similar to those of construction. A Visual Resources Mitigation Plan would be developed prior to construction and will include plans to address specific impacts.

Figure 3.12-5 portrays the visible features of guyed steel lattice (left-hand image) and self-supporting steel lattice (right-hand image) transmission line structures. **Figures 3.12-6** and **3.12-7** portray the comparisons of guyed, self-supporting, and tubular pole structures at 0.25 mile, 0.5 mile, 1 mile, and 2 miles with sky as background and landforms as background, respectively. Nine standard BLM criteria for determination of visual contrasts are analyzed for the two structure types in the tables in **Appendix I**.

Construction and operation phase impacts from any needed access roads are considered along with vegetation clearing of the 250-foot ROW. An Access Road Plan would be developed for the Agency Preferred Alternative during final engineering and design, which would define site-specific access to each structure and temporary work area and would be included as part of the COM Plan.



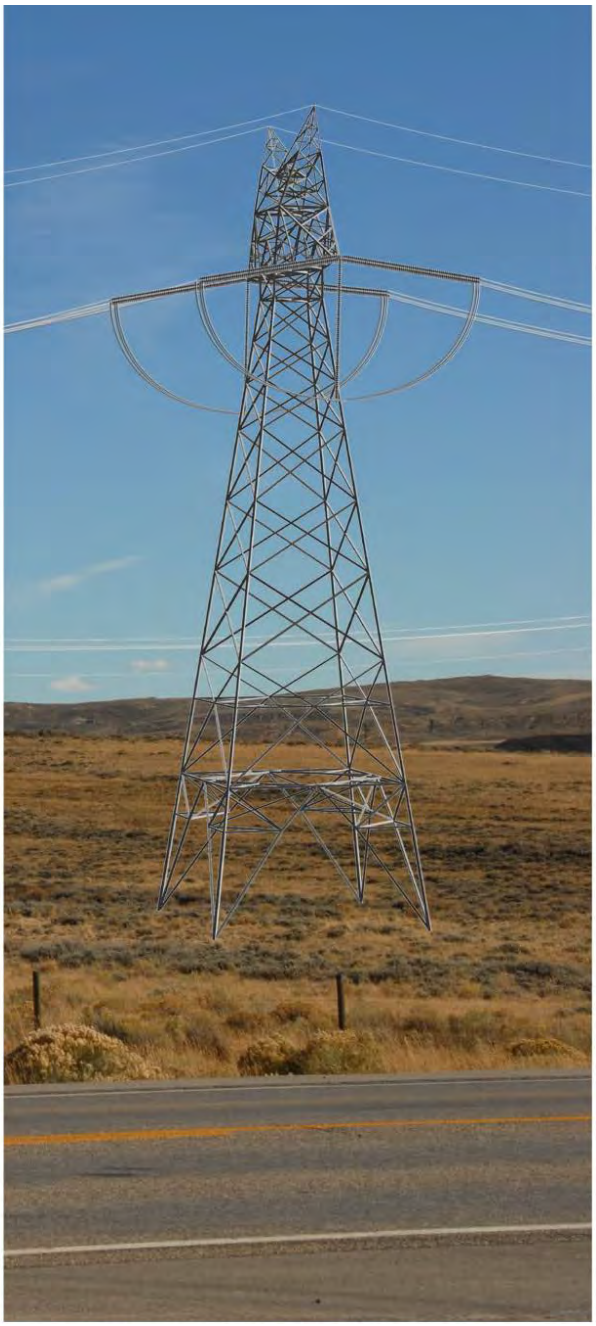


Figure 3.12-5 Guyed Steel Lattice (left) and Self-supporting Steel Lattice (Right) Transmission Line Structures

Figure 3.12-6 Comparisons of Guyed, Self-supporting, and Tubular Pole Structures at 2.0, 1.0, 0.5, and 0.25 miles with Sky as Background

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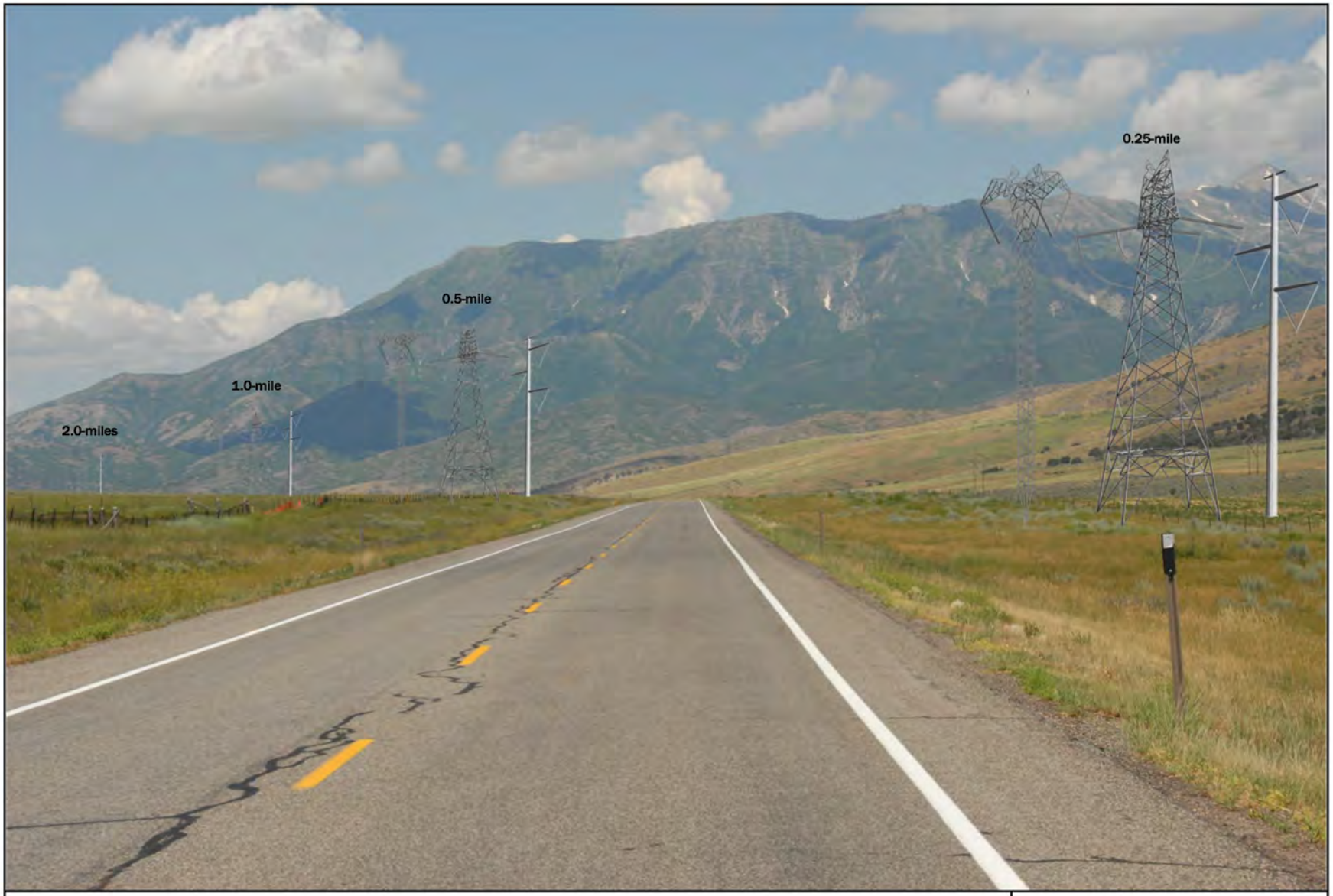

Figure 3.12-7 Comparisons of Guyed, Self-supporting, and Tubular Pole Structures at 2.0, 1.0, 0.5, and 0.25 miles with Landforms as Background

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Overall analysis considerations for visual resources are described in **Table 3.12-3**. The analysis of visual resources impacts is based on the assumptions that disturbance of people's views and changes in the scenic landscape are impact parameters. In addition, non-compliance or inconsistency with agency management objectives indicates impact significance. Steel transmission line structures and conductors create visual contrasts out to 5 miles in project landscapes, depending on sun-lighting conditions and relative viewer positions. Vegetation management, which includes tree removal in linear ROWs, exerts visual contrasts in views up to 20 miles in tree-covered landscapes. These contrasts remain until decommissioning and replanting or feathering of the ROW. Visual contrasts from vegetation management in landscapes without tree cover would remain until grasses and shrubs re-inhabit disturbed areas. These contrasts typically diminish within 3 to 5 years. **Appendix I**, **Table I-12** shows estimates of reclamation recovery time based on topographic slopes, topographic aspects, and vegetation cover.

Table 3.12-3 Analysis Considerations for Visual Resources

Topic	Analysis Considerations and Relevant Assumptions
Impacts to people (the viewing public).	Measure the extent of and describe the effects of the Project's structures and disturbed ROWs on people through spatial analysis of BLM's visual resource inventory sensitivity levels and distance zones, USFS viewer concern levels and distances, and viewer sensitivity levels on private, state, and other federal receptors (**Appendix I Tables**).
Impacts to the scenic landscape.	Measure the extent of and describe the effects of the Project's structures and disturbed ROWs on the scenic landscape through spatial analysis of BLM's visual resource inventory visual quality classifications, USFS scenic attractiveness ratings, and scenic quality on private, state, and other federal lands (**Appendix I Tables**).
Compliance or consistency with agency management objectives.	Apply the BLM's visual contrast rating process and forms for views from key observation points to describe the form, line, color, and texture of the characteristic landscape's landform/water, vegetation, and structures and the form, line, color, and texture of the Project's landform/water, vegetation, and structures. Compare the Project with the characteristic landscape to determine visual contrasts between proposed conditions and existing conditions (**Appendix I Tables**). Visual contrast determination includes application of BLM's nine standard criteria for assessing visual contrasts.

A significant impact to visual resources would result if any of the following were to occur from construction or operation of the proposed Project:

- Visually obvious degradation of the foreground character or scenic quality of a visually important landscape.
- Dominant visual changes in the landscape that are seen from highly sensitive viewer locations such as community enhancement areas (e.g., community gateways, roadside parks, viewpoints and historic markers) or locations with special scenic, historic, recreation, cultural, archaeological and/or natural qualities that have been recognized as such through legislation or some other official declaration.
- Impacts to visual resources that are not in compliance with the BLM VRM classifications and/or consistent with Forest Service SIO or VQO classifications.

3.12.6.1 Methodology

Study methods were developed in close coordination with, and direction from, the BLM and USFS and comply with policies of both agencies. The BLM provided visual resource inventories and resource management plans for each of the 15 FOs: Cedar City FO, Caliente FO, Fillmore FO, Grand Junction FO, Las Vegas FO, Little Snake FO, Moab FO, Price FO, Rawlins FO, Richfield FO, Rock Springs FO, Salt Lake FO, St. George FO, Vernal FO, and White River FO. The USFS provided scenic integrity objectives

or visual quality objectives and land management plans for each of the five national forests; Ashley National Forest, Dixie National Forest, Fishlake National Forest, Manti La-Sal National Forest, and Uinta National Forest. KOPs were selected based on visibility of the Project and through approval by each field office and forest. Please see **Figures 3.12-1** through **3.12-4** (Project Regions I through IV) for general locations of alternative routes, KOPs, and viewsheds of the Project. Please see **Appendix I**, **Figure I-1** for specific locations of KOPs, Project reference lines, mileposts, and viewsheds.

Impacts to landscape scenery were determined by measuring the extent of effects of the Project's structures, access roads, and disturbed ROWs on the scenic landscape through spatial analysis of BLM's visual resource inventory visual quality classifications, USFS scenic attractiveness ratings, and scenic quality on private, state, and other federal lands

Impacts to viewers were determined by measuring the extent effects of the Project's structures, access roads, and disturbed ROWs on people through spatial analysis of BLM's visual resource inventory sensitivity levels and distance zones, USFS viewer concern levels and distances, and viewer sensitivity levels on private (including residences), state, and other federal receptors.

Compliance or consistency with agency management objectives involves application of the BLM's visual contrast rating process forms for views from key observation points to describe the form, line, color, and texture of the characteristic landscape's landform/water, vegetation, and structures and the form, line, color, and texture of the Project's landform/water, vegetation, and structures. It also involves comparison of the Project with the characteristic landscape to determine visual contrasts between proposed conditions and existing conditions. Visual contrast determination includes application of BLM's nine standard criteria for assessing visual contrasts. For USFS lands, consistency with SIOs or VQOs involves the comparison of existing landscape integrity with integrity that would occur with implementation of proposed conditions. The presence of utility corridors or utility windows will take precedence over issues of compliance or consistency with agency management objectives.

Impact Parameters

Impacts were assessed by comparing the Project's visual contrasts with landscape scenery, sensitive viewers, and compliance and consistency with BLM and USFS visual management objectives, respectively. Existing transmission lines within 0.5 mile (immediate foreground) of the Project reference line are documented by segment and milepost in **Appendix I**, **Table I-8**. The visual contrasts (strong, moderate, and weak) between the Project's guyed or self-supporting transmission line structures' form, line, and color and existing structures' form, line, and color, within 0.5 mile, are documented in **Appendix I**, **Table I-9**.

The ten standard BLM criteria for determination of visual contrasts were interpreted for applicability for a transmission line and ancillary facilities project of the magnitude of TWE and reduced to nine criteria. The nine criteria are documented in **Appendix I**, **Table I-10** and listed as follows: 1) the distance between observer and Project; 2) length of time the project is in view (linear or stationary viewers – KOPs); 3) the angle of observation; 4) whether the structures and conductors are sun lit (brighter, lighter grays) or in shade (darker, less apparent grays); 5) the presence of guyed, steel lattice tangent structures or larger self-supported, steel lattice angle structures; 6) types of structures in view; 7) relative size or scale; 8) scenic or historic; 9) presence of residential; and 10) reclamation recovery time.

Landscape scenery impacts (**Table 3.12-4**) were determined based on the comparison of contrasts with the scenic quality inventory of the affected environment (**Appendix I**, **Figure I-11** and **Appendix I**, **Table I-11**). Segments were documented and mapped where the existing scenic quality would be lowered by the Project to a lower class (Class A to Class B or Class B to Class C) as shown by milepost in **Appendix I**, **Table I-12**. The results are based on consideration of existing scenic quality rating/scores, existing landscape character, presence or absence of existing industrial development (transmission lines, pipelines, etc.), and the effect of introducing the Project into the landscape as either a new or additional

cultural modification. The range of scores for Class A scenery is 19 to 32 and 12 to 18 for Class B Scenery. The Class C scenery threshold is 11 or less. The most impactful score for a detracting cultural modification is minus four (-4). If there are existing cultural modification scores from minus one (-1) through minus four (-4), the effect of the Project would result in no less than a minus four (-4) in total. Thus, the range of possibilities for reducing Class A to Class B is based on an existing Class A score of 19 to 22 and for reducing Class B to Class C, 12 to 15.

Table 3.12-4 Landscape Scenery Impacts

Landscape Scenery Impacts			
	Project Visual Contrast		
Scenic Quality	**Strong**	**Moderate**	**Weak**
Class A	High	High	Moderate
Class B	High	Moderate	Low
Class C	Moderate	Low	Low

Sensitive viewers' impacts were determined based on the comparison of contrasts with sensitivity/user concern levels, distance zones (0 to 0.5 mile, 0.5 to 2.5 miles, 2.5 to 5 miles, and greater than 5 miles) (**Table 3.12-5**), and visibility of the Project (**Table 3.12-6**) (**Appendix I**, **Figures I-5** and **I-6**). The sensitive viewers' impact tables are located in the regional summaries (by Alternative) and Impacts sections (by alternative and segment) and shown by segment and milepost in **Appendix I**, **Table I-13** for high sensitivity viewers, and in **Appendix I**, **Table I-14** for moderate sensitivity viewers.

Table 3.12-5 Sensitivity Level/User Concern Impacts

High Sensitivity Level/User Concern Impacts			
	Project Visual Contrast		
Project Visibility	**Strong**	**Moderate**	**Weak**
0 – 0.5 Miles	High	Moderate	Moderate
0.5 – 2.5 Miles	Moderate	Moderate	Low
2.5 – 5 Miles	Moderate	Low	Low
Greater Than 5 Miles	Low	Low	Low
Medium Sensitivity Level/User Concern Impacts			
0 – 0.5 Miles	High	Moderate	Moderate
0.5 – 2.5 Miles	Moderate	Low	Low
2.5 – 5 Miles	Low	Low	Low
Greater Than 5 Miles	Low	Low	Low

Table 3.12-6 Distance Zones and Project Visibility

Distance Zones and Project Structures Visibility	
Distances	**Project**
Immediate Foreground	0 – 0.5 Miles
Foreground-Middleground	0.5 – 2.5 Miles
Background	2.5 – 5 Miles
Seldom Seen	Greater Than 5 Miles

Table 3.12-6 Distance Zones and Project Visibility

Distance Zones and Project ROW Visibility	
Immediate Foreground	0 – 0.5 Miles
Foreground-Middleground	0.5 – 5 Miles
Background	5 – 20 Miles
Seldom Seen	Greater Than 20 Miles

Compliance with BLM VRM objectives and consistency with USFS SIOs and VQOs was determined by comparison of objectives with visual contrast ratings from 309 KOPs and in High SIO and Retention VQO areas irregardless of the presence of KOPs. Mitigations **VR-1** through **VR-9** (see Section 3.12.6.3) are applied where appropriate and feasible to reduce impacts as much as possible and to identify location and level of residual impacts. The agency management objectives compliance and consistency tables are located in the regional summaries (by alternative) and Impacts sections (by alternative and segment) and in **Appendix I**, **Tables I-15**, **I-16**, and **I-17**. Visual impact levels are summarized in **Table 3.12-7**. BLM compliance or USFS consistency criteria are summarized in **Table 3.12-8**.

Table 3.12-7 Impact Level Criteria

Impact	Criteria
High	The project would be dominant in Class A or Class B landscape scenery. The project would be visible within 0.5 miles of high sensitivity or high user concern viewers.
Moderate	The project would be co-dominant in Class B landscape scenery. The project would be visible within 0.5 to 2.5 miles of medium sensitivity or medium user concern viewers. The project would parallel existing linear features such as roads or pipeline ROWs, or transmission line features at 1,500 feet or more.
Low	The project would be dominant or co-dominant in Class C landscape scenery. The project would be visible with greater than 2.0 miles of medium sensitivity or medium user concern viewers. The project would parallel and be co-dominant with existing transmission line features.

Table 3.12-8 BLM Compliance or USFS Consistency Criteria

VRM/SIO/VQO	Standard
No	The project would have a high or moderate contrast in areas with VRM Class II, SIO High, or VQO Retention management objectives. The project would have a high contrast in areas with VRM Class III, SIO Moderate, or VQO Partial Retention management objectives. The project would have a moderate contrast in areas with VRM Class III, SIO Moderate, or VQO Partial Retention management objectives.
Yes	The project would be in VRM Class IV, SIO Low, or Very Low, or VQO Modification or Maximum Modification.

In addition to the KOP-based compliance analyses of the BLM applied for consistency on USFS lands, analysis has been conducted in those areas of the national forests with High and Moderate SIO and areas of Retention and Partial Retention VQO crossed by the Project where the Project would be inconsistent with management objectives. Portions of the Project that include one or more existing transmission lines and ROW clearings would be fully consistent with the definition of a High and Moderate SIO or Retention and Partial Retention VQO because the landscape character is not intact and the introduction of strong

forms in the landscape would not deviate substantially from the existing character. Where the Project does not parallel an existing transmission line, it would not meet the definition of a High or Moderate SIO or Partial Retention VQO if located within 0.5 miles of the viewer, and more so, in moderate to steep terrain.

If the Project is located within a USFS-designated utility window or corridor, which allows for the construction and operation of transmission line projects, the SIO or VQO classification is negated.

Project Visibility

The visible height threshold for structures was set at 150 feet, the height of the tallest structures' crossarms. That threshold assumes that a person seeing at least the crossarms would perceive the presence of the Project. Permanent access roads were assumed to be 14 feet wide. The cleared ROW was assumed to be 250 feet wide. The ArcGIS viewshed application was used to determine visibility of the Project out to five miles where the reference line would be in shrub, grassland, and cropland landscapes and out to 20 miles where there would be cleared ROWs in forested landscapes.

Landscape character and scenic integrity for USFS lands crossed by the Project is described by alternative, segment, and milepost in **Appendix I**, **Table I-18**. Landscape character for BLM land (by Region and Alternative) is described at the scenic quality rating unit level by Segment and milepost in **Appendix I**, **Table I-19**.

3.12.6.2 Impacts from Terminal Construction and Operation

The Northern and Southern terminals would be constructed regardless of alternative route or design option.

Northern Terminal

The Northern Terminal would be sited on private land (BLM-private checkerboard), 3 miles south of I-80 and Sinclair, Wyoming, and would require initial disturbance of 504 acres for construction and long-term disturbance of 234 acres for operation. This location is in a largely undisturbed, flat area of sage brush and un-vegetated playa.

Due to limited visibility of the Project by the casual observer, impacts to people would be low. Due to diminished visual quality, impacts to Class B scenery would be moderate to high, which would lower the Scenic Quality rating in the immediate area (0.5 mile) to Class C scenery. Project elements would have moderate to strong contrast with the existing landscape. These contrasts would be due to cylindrical and pyramidal forms, vertical and horizontal lines of structures and conductors, silvery-grey and tan colors, smooth textures resulting from the structures of the terminal site, multiple guyed steel lattice structures along the tangent near the terminal site, wider, larger-appearing self-supporting steel lattice structures at the points-of-intersection, fences, and vegetation clearing for roads. Since the color of terminal materials would cause contrasts with the characteristic landscape and also emphasizes form, line, and texture contrasts of those materials, application of **VR-2** (see Section 3.12.6.3) through use of the BLM standard environmental colors (Standard Environmental Color Chart, CC-001, 2008) for the surfaces of terminal structures, tanks and fencing would mitigate contrasts to a weak to moderate level for the terminal in this landscape. Implementation of **VR-8** (see Section 3.12.6.3) lighting guidelines would reduce night-time glare to minimal levels.

Southern Terminal

The Southern Terminal would be sited on private land in the Eldorado Valley near Boulder City, Nevada, in an area that is already developed with numerous transmission lines, two substations and two solar facilities. This terminal would require initial disturbance of 412 acres for construction and long-term disturbance of 203 acres for operation.

The Project would be located in flat topography that is largely devoid of vegetation.

Due to visual compatibility of the Project with existing electrical utility structures and developments, the casual observer would not consider visual quality to be substantially diminished. As such, impacts to people and Class C scenery would be low. Project elements would have weak to moderate contrast with the existing landscape. These contrasts would be due to cylindrical and pyramidal forms, vertical and horizontal lines of structures and conductors, silvery-grey and tan colors, smooth textures resulting from the structures of the terminal site, multiple guyed steel lattice structures near the terminal site, wider, larger-appearing self-supporting steel lattice structures at the points-of-intersection, fences, and vegetation clearing for roads. Implementation of mitigation **VR-2** and **VR-8** would diminish the visibility of the Project and further reduce contrasts.

Design Option 2 – Southern Terminal near IPP

The implementation of Design Option 2 would utilize the same alternative routes and construction techniques as the proposed action. As such, impacts from construction and operation of this design option would be the similar to those discussed under the alternative routes. Differences between this design option and the proposed action include the locations of the southern converter station and ground electrode system, as well as the addition of a series compensation station midway between IPP and Marketplace. The southern converter station would be located near IPP in Utah instead of Marketplace in Nevada, and the ground electrode system would be within 50 miles of IPP. Construction and operation of a converter station near IPP, ground electrode system, and series compensation station would be expected to impact visual resources as discussed under the Southern Terminal.

Design Option 3 – Phased Build Out

The implementation of Design Option 3 would utilize the same alternative routes, facilities, and construction techniques as the proposed action. Impacts from construction and operation of this design option would be the same as those discussed under the other terminals and design options.

3.12.6.3 Impacts Common to all Alternative Routes and Associated Components

Construction Impacts

Visual resources would be impacted from transmission line construction due to the activities necessary to build the transmission line and related facilities. Viewshed disturbance includes guyed steel lattice and self-supporting steel lattice structures (**Figure 3.12-5**), conductors, cleared ROWs, temporary buildings and shelters, fences, and construction-related equipment, debris storage, and ground areas cleared for construction, such as Project access roads, transmission line tower work areas, conductor stringing and tensioning sites, communication and regeneration sites, material storage yards, batch plants, fly yards, staging areas, ground electrode systems, and one low voltage electrical line associated with each ground electrode system.

Direct impacts to people and scenery would occur from modifications of the characteristic landscape, and from introductions of contrasting forms, lines, colors and textures of landform, vegetation, and structures needed to accommodate Project construction activities.

In undeveloped areas, pyramidal forms of structures, vertical and horizontal lines of structures and conductors, silvery-grey and tan (ROW) colors, and smooth textures would result from multiple guyed steel lattice structures along the tangents, a single, wider, larger appearing, self-supporting steel lattice structure at the points-of-intersection and longer spans, and vegetation clearing, fences, and roads. These elements would contrast with existing characteristic landscapes to a moderate to strong degree. In viewsheds with existing electrical transmission line structures and ground disturbances, contrasts would be weak to moderate, depending on distance from the observer and number and type of structures (**Appendix I**,

Tables I-8 and **I-9**). In all cases, construction activities occurring in the immediate foreground of the observer would cause greater contrasts than those appearing at a further distance.

The introduction of the Project's construction-related structures, equipment, and areas' cubed forms, horizontal and vertical lines, multiple colors, and smooth textures in undeveloped areas would contrast with the characteristic landscape to a strong degree. In viewsheds with existing developed activities, contrasts would be weak to moderate, depending on proximity of the Project with similar activities and distance from observers.

In the short term of construction, direct impacts to people and scenery would be expected to be moderate to high and contrasts would comply with BLM VRM Class IV management objectives, and be consistent with USFS Low and Very Scenic Integrity Objectives and USFS Modification and Maximum Modification Visual Quality Objectives. Project construction activities, as discussed in the plan of development, that are located within 0.5 mile of high or moderate sensitivity viewers and have strong or moderate contrasts, would not be expected to comply with BLM VRM Classes III, or be consistent with USFS SIO High, or Medium, and USFS VQO Retention, or Partial Retention management objectives. Mitigations involving distances greater than 0.5 mile typically would reduce visual contrasts to moderate and, therefore, result in compliance with VRM Class III, and consistency with SIO Medium, and VQO Partial Retention management objectives.

Mitigation

The following nine mitigations are proposed for the Project. These mitigations would be applied to all high and moderate impacts to reduce impact levels for landscape scenery, sensitive viewers, compliance with BLM VRM objectives, and consistency with USFS SIOs or VQOs. For the purposes of analysis, impacts of these mitigations and residuals are disclosed in the following sections.

***VR-1**: Remove pinyon-juniper trees only as necessary for construction and maintenance of transmission towers and access roads. Feather the edges of any clearings. Pinyon-juniper trees in the ROW that are outside of the tower and road construction zone are left in place. Leave other trees in the ROW that would not present a safety or engineering hazard or otherwise interfere with operations. Where feasible, top rather than remove trees that exceed the allowable height. Openings in vegetation for facilities, structures, and roads should mimic, to the extent possible, the size, shape, and characteristics of naturally occurring openings.*

Effectiveness: This mitigation would substantially reduce impacts in immediate foreground, foreground-middleground, and background viewing situations.

***VR-2**: Use BLM environmental colors (Standard Environmental Colors, Color Chart CC-001, 2008) for surface coatings of permanent buildings, fences, gates, and tanks at terminal sites. Color selection is based on site-specific assessment at each site. Paint grouped structures the same color to reduce visual complexity and color contrast.*

Effectiveness: This mitigation would substantially reduce impacts of the terminal sites.

***VR-3**: Locate structures, roads, and other project elements as far back from road, trail, and river crossings (linear KOPs) as possible, and, where feasible, employ terrain and vegetation to screen views from crossings.*

Effectiveness: This mitigation would substantially reduce visual contrasts by decreasing the apparent size and extent of structures.

***VR-4**: In areas with no existing transmission lines move the transmission line (reference line) away from the immediate foreground of stationary (non-linear) KOPs to a distance of 0.5 miles or more. Where feasible, approach and cross linear KOPs such as roads and trails at right angles.*

Effectiveness: This mitigation would reduce visual contrasts from strong to moderate and moderate to weak.

***VR-5**: Materials and surface treatments of structures and land disturbances should repeat and/or blend with the existing form, line, color, and texture of the landscape and have little or no reflectivity (non-specular).*

Effectiveness: This mitigation would substantially reduce visual contrasts.

***VR-6**: Where paralleling an existing transmission line, where possible, place the structures to match the locations of structures in the existing line.*

Effectiveness: This mitigation would reduce line and form structure contrasts by blending structures with existing structures.

***VR-7**: Where possible, position roads at the toe of a slope, at the edge of vegetation openings, and perpendicular with the line of sight.*

Effectiveness: This mitigation would substantially reduce visual contrasts by blending roads and associated grading into the landscape.

***VR-8**: Minimize lighting at terminal and construction facilities to the extent permitted by OSHA and down-shield lights to reduce night glare and light pollution.*

Effectiveness: This mitigation would substantially reduce night-time visual contrasts by diminishing the effects of lighting on the night landscape.

***VR-9**: Where possible in tree-covered moderate to steep terrain, perform construction operations for towers and conductors with helicopters to reduce the need for access roads and laydown clearings.*

Effectiveness: This mitigation would substantially reduce visual contrasts by eliminating the need for terrain modification, grading and drainage disturbances and tree removal.

Implementation of mitigation **VR-1**, selective clearing of pinyon-juniper vegetation in the 250-foot-wide ROW would substantially reduce impacts in the immediate foreground, foreground-middleground, and background viewing situations. **Figures 3.12-8**, **3.12-9**, and **3.12-10** show a representative existing condition, simulated condition with full ROW clearing, and simulated mitigation with selective clearing in the zone of construction for structures, respectively. This example is located in Utah near the Mountain Meadows National Historic Landmark and Site, along Alternative III-A, Segment 501, Milepost 7.

Operation Impacts

Visual resources would be impacted during the operation of the Project due to contrasts from guyed steel lattice and/or self-supporting steel lattice structures, two electrical conductor phases with three wires per phase, terminal facilities, ground electrode facilities, and disturbance by cleared ROWs, permanent access roads and other areas of ground or vegetation disturbance.

Direct impacts to viewsheds similar to those discussed for the construction phase would be expected.

Figure 3.12-8 **Existing Condition for the Mountain Meadows National Historic Landmark and Site KOP Showing One Steel Lattice Transmission Line, Two H-frame Transmission Lines, and One Pipeline ROW Clearing**

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Figure 3.12-9 **Simulated Condition for the Mountain Meadows National Historic Landmark and Site showing the TWE Guyed Transmission Line Structures and the Cleared 250-foot ROW**

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Figure 3.12-10 **Simulated Mitigation Condition for the Mountain Meadows National Historic Landmark and Site KOP showing the TWE Guyed Transmission Line Structures and the Selectively-cleared 250-foot ROW**

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Direct impacts to people and scenery would be expected to be moderate to high and contrasts would comply with BLM VRM Class IV management objectives, and be consistent with USFS Low and Very Low Scenic Integrity Objectives and USFS Modification and Maximum Modification Visual Quality Objectives. Project construction activities, as discussed in the plan of development, that are located within 0.5 mile of high or moderate sensitivity viewers and have strong or moderate contrasts, would not be expected to comply with BLM VRM Classes II or III, or be consistent with USFS SIO High, or Medium, and USFS VQO Retention, or Partial Retention management objectives. Mitigations involving distances greater than 0.5 mile typically would reduce visual contrasts to moderate and, therefore, result in compliance with VRM Class III, and consistency with SIO Medium, and VQO Partial Retention management objectives.

Indirect viewshed impacts would result from disturbance by human recreational activities, artifacts of activities, and vehicles with access to scenic landscapes by the Project's permanent access roads. Indirect impacts during operation would be expected to comply with agency management objectives in BLM VRM Class III and IV areas and be consistent with USFS SIO Medium and Low or USFS VQO Partial Retention, Modification, or Maximum Modification management objectives. Due to effects in landscapes without existing cultural modifications or with intact scenic integrity, indirect impacts in the immediate foreground 0.5 mile from sensitive viewers may not comply with BLM VRM Class II management objectives or be consistent with USFS SIO High or USFS VQO Retention management objectives. It is expected these impacts would be mitigated as much as possible on a case-by-case basis.

Design Option 2

Design Option 2 would consist of a 600-kV DC tubular pole transmission line from the Northern Terminal near Rawlins, WY to a new AC/DC converter station near the existing IPP substation near Delta, Utah. From the new converter station, a 500-kV AC transmission line would be constructed to connect with one of the existing substations in the Eldorado Valley, south of Boulder City, Nevada (Marketplace Hub). Design Option 2 would consist of the following elements that are different from the Project, that would cause effects to visual resources, scenery, and people: 1) 100 to 150-foot tall tubular pole structures with three conductors, and two static/communication wires (**Figures 3.12-6** and **3.12-7** show the character of these structures at distances of 0.25, 0.5, 1.0, and 2.0 miles with sky as background and landforms as background, respectively); 2) 345-kV AC transmission line of less than five miles between the new converter station and the existing IPP 345-kV AC substation; a series compensation station (similar to a small 500-kV substation) near the halfway point in the 500-kV line between IPP and Marketplace Hub.

The effects of Design Option 2 ROW clearing and access roads would be the same as for the Project. The tubular pole structures would cause decreased effects in the immediate foreground with sky as background (all road, river, and trail crossings) as compared with the guyed and self-supporting lattice structures (**Figure 3.12-6**). The tubular pole structures would cause increased effects beyond the immediate foreground with landforms as background, as compared with the guyed and self-supporting lattice structures (**Figure 3.12-7**). Non-specular (dulled surfaces) structure mitigations would decrease visual impacts in all cases as compared with specular (reflective) structures. However, the tubular pole structures would still have increased effects beyond the immediate foreground, as compared with guyed and self-supporting lattice structures. The additional (3rd) conductor, as compared with the Project's two conductors with three phases (wires), would have minimal increased effects on visual resources and not be consequential to the casual observer. The existing character of the IPP area is dominated by utility structures, roads, and buildings. As such, the addition of the new AC/DC converter station and transmission line would have minimal increased effects as compared to the existing conditions.

Design Option 3

Design Option 3 would consist of a "phased-buildout" of the Project and have similar effects to visual resources.

Decommissioning Impacts

Impacts to visual resources during the decommissioning phase of the Project would be similar to construction impacts.

3.12.6.4 Region I

Impact parameters that relate to the impact discussion in Section 3.12.6.3, Impacts Common to all Alternative Routes and Associated Components, and differences by alternative are presented in this section. The segment-specific table information for high and moderate sensitivity viewers distance zones, scenic quality, visual resource inventory classifications, agency management classifications, residual impacts, compliance or consistency with BLM VRM, USFS SIO or VQO, and intersection of the Project reference line with utility corridors or utility windows are summarized in **Table 3.12-9**. Segment- and milepost-specific Region I inventory data and impact results for these topics are shown in the corresponding tables in **Appendix I**. The KOP figures in **Appendix I** indicate the location information for each KOP, photograph of the existing condition for each KOP, estimated structure locations, Google Earth 3D locations and heights of Project structures, associated visual contrast rating form analysis, compliance with agency management objectives, and recommended mitigation.

The application of substantive mitigation measures would reduce visual impacts from high to moderate, or moderate to low. These reductions are applicable to viewing situations involving stationery (non-linear) viewers and to landscapes where tree cover and moderate to steep landforms contribute strongly to visual impacts. Residual impacts by Alternative and Segment are listed for landscape scenery, high viewer sensitivity and moderate viewer sensitivity in **Table 3.12-9**. Residual impacts by Region, Alternative, Segment, and mileposts (as if, “walking the line”) are listed in the corresponding tables in **Appendix I**.

Compliance or Consistency with Agency Management Objectives

Maps showing locations where agency management objectives would be met and would not be met are shown in **Appendix I**, **Figure I-12**. Photographic simulations of the Project, for those KOP locations where agency management objectives would not be met, are shown in the KOP figures in **Appendix I**, following the applicable KOP analysis sheet. Maps showing locations where applications of mitigation **VR-4** to the reference line would reduce impacts to levels compliant or consistent with agency management objectives are shown in **Appendix I**, **Figure I-13**. Maps showing locations where agency management objectives would be met with mitigation and where agency management objectives are not applicable are shown in **Appendix I**, **Figure I-14**. Mitigation **VR-4** would be applicable to, and subject to routing engineering study for reference lines within 0.5 mile of linear KOPs, except for those reference lines crossing roads. Designated utility corridors considered in the analysis are shown in **Appendix I**, **Figure I-15**.

Scenic Quality

Existing scenic quality may be lowered by the Project, depending on the context. This is determined based on analysis of existing scenic quality rating/scores, existing landscape character, presence or absence of existing industrial development (transmission lines, pipelines, land disturbances, etc.), and the effect of introducing the Project into the landscape as either a new or additional cultural modification. Those segments where the existing scenic quality would be lowered by the Project to a lower class (Class A to Class B or Class B to Class C) are shown in **Table 3.12-10**. Segment- and milepost-specific data for change in scenic quality is shown in **Appendix I**, **Table I-12**.

Table 3.12-9 Region I Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)[1]				Moderate Sensitivity Viewers (miles)[1]				Scenic Quality (miles)[2]			BLM VRI Classifications (miles)[3]			BLM VRM Classifications (miles)[4]			USFS SIO/VQO Classifications (miles)[5]			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)[8]						Utility Corridor or Utility Window[9]
																						Landscape Scenery[6]			High Sensitivity Viewers[7]			Moderate Sensitivity Viewers[7]			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Alternative I-A																																						
Alternative I-A Totals	**155**	**13**	**74**	**48**	**20**	**10**	**53**	**45**	**47**	**<1**	**61**	**93**	**29**	**41**	**85**	**--**	**72**	**43**	**--**	**--**	**--**	**58**	**53**	**44**	**7**	**97**	**51**	**8**	**38**	**109**	**110**	**5**	**40**	**110**	**5**	**40**	**5**
20	<1	<1	--	--	--	--	<1	--	--	--	--	<1	--	--	<1	--	--	--	--	--	--	--	<1	--	<1	--	--	--	<1	--	--	--	<1	--	--	<1	--
30	32	7	17	8	--	5	15	12	--	--	15	17	19	1	13	--	--	16	--	--	--	13	10	9	3	29	1	4	10	18	16	--	17	16	--	17	--
40	10	1	2	6	1	1	2	6	1	--	--	10	--	--	10	--	--	5	--	--	--	--	--	10	--	1	9	--	1	9	5	--	5	5	--	5	<1
100	19	<1	14	5	--	<1	19	--	--	--	4	15	--	--	19	--	13	--	--	--	--	3	10	6	<1	13	6	--	14	5	13	--	6	13	--	6	2
110	15	1	10	5	--	--	3	6	6	--	--	15	--	6	9	--	2	6	--	--	--	--	--	15	--	1	14	--	--	15	8	--	7	8	--	7	--
110.05	4	--	2	2	--	--	--	2	2	--	--	4	--	2	2	--	--	2	--	--	--	--	--	4	--	2	2	--	--	4	2	--	2	2	--	2	--
120	23	--	6	11	6	1	5	3	14	--	9	14	1	12	10	--	12	11	--	--	--	9	14	--	--	17	6	1	5	17	20	2	<1	20	2	<1	--
180	2	2	<1	--	--	--	2	--	--	--	2	--	2	--	--	--	2	--	--	--	--	2	--	--	2	<1	--	--	2	--	<1	2	--	<1	2	--	<1
180.05	14	--	9	3	1	--	1	8	5	--	4	10	3	--	11	--	13	1	--	--	--	4	10	--	--	12	1	--	1	13	14	--	--	14	--	--	1
180.2	35	2	13	8	12	3	5	8	19	--	26	9	4	20	11	--	30	2	--	--	--	26	9	--	2	21	12	3	5	27	31	1	3	13	1	3	1
Alternative I-B																																						
Alternative I-B Totals	**159**	**13**	**64**	**57**	**25**	**15**	**54**	**51**	**39**	**1**	**60**	**98**	**40**	**22**	**97**	**--**	**88**	**25**	**--**	**--**	**--**	**57**	**51**	**51**	**7**	**92**	**60**	**12**	**38**	**109**	**105**	**8**	**46**	**105**	**8**	**46**	**18**
20	<1	<1	--	--	--	--	<1	--	--	--	--	<1	--	--	<1	--	--	--	--	--	--	--	<1	--	<1	--	--	--	<1	--	--	--	<1	--	--	<1	--
30	32	7	17	8	--	5	15	12	--	--	15	17	19	1	13	--	--	16	--	--	--	13	10	9	3	29	1	4	10	18	16	--	17	16	--	17	--
40	10	1	2	6	1	1	2	6	1	--	--	10	--	--	10	--	--	5	--	--	--	--	--	10	--	1	9	--	1	9	5	--	5	5	--	5	<1
50	5	--	5	--	5	--	--	5	--	--	--	5	--	--	5	--	1	<1	--	--	--	--	--	5	--	--	5	--	--	5	1	--	4	1	--	4	--
60	19	1	4	12	2	1	4	7	7	--	--	19	--	2	17	--	12	<1	--	--	--	--	--	19	--	5	15	--	1	18	12	<1	7	12	<1	7	9
70	22	--	2	3	18	1	3	3	15	--	11	11	11	5	6	--	19	3	--	--	--	11	11	--	--	5	18	1	3	17	20	2	--	20	2	--	2
100	19	<1	14	5	--	<1	19	--	--	--	4	15	--	--	19	--	13	--	--	--	--	3	10	6	<1	13	6	--	14	5	13	--	6	13	--	6	2

Table 3.12-9 Region I Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)[1]				Moderate Sensitivity Viewers (miles)[1]				Scenic Quality (miles)[2]			BLM VRI Classifications (miles)[3]			BLM VRM Classifications (miles)[4]			USFS SIO/VQO Classifications (miles)[5]			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)[8]						Utility Corridor or Utility Window[9]
																						Landscape Scenery[6]			High Sensitivity Viewers[7]			Moderate Sensitivity Viewers[7]			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
180	2	2	<1	--	--	--	2	--	--	--	2	--	2	--	--	--	2	--	--	--	--	2	--	--	2	<1	-	--	2	--	<1	2	--	<1	2	--	<1
180.05	14	--	9	3	1	<1	1	8	5	--	4	10	3	--	11	--	13	1	--	--	--	4	10	--	--	12	1	--	1	13	14	--	--	14	--	--	1
186	34	2	16	12	4	7	6	10	11	1	23	10	5	14	14	--	27	<1	--	--	--	24	10	--	2	28	4	7	6	21	24	4	6	23	4	6	3
190.05	1	--	--	1	--	--	1	--	--	--	--	1	--	--	1	--	1	--	--	--	--	--	--	1	--	--	1	--	--	1	1	--	<1	1	--	<1	--
Alternative I-C																																						
Alternative I-C Totals	**186**	**73**	**88**	**24**	**1**	**67**	**96**	**23**	**--**	**<1**	**94**	**91**	**29**	**60**	**97**	**--**	**38**	**45**	**--**	**--**	**--**	**52**	**59**	**75**	**28**	**117**	**41**	**31**	**81**	**74**	**82**	**<1**	**104**	**82**	**<1**	**104**	**42**
20	<1	<1	--	--	--	--	<1	--	--	--	--	<1	--	--	<1	--	--	--	--	--	--	--	<1	--	<1	--	--	--	<1	--	--	--	<1	--	--	<1	--
30	32	7	17	8	--	5	15	12	--	--	15	17	19	1	13	--	--	16	--	--	--	13	10	9	3	29	1	4	10	18	16	--	17	16	--	17	--
100	19	<1	14	5	--	<1	19	--	--	--	4	15	--	--	19	--	13	--	--	--	--	3	10	6	<1	13	6	--	14	5	13	--	6	13	--	6	2
130	22	18	4	--	--	19	3	--	--	--	6	16	3	8	10	--	--	12	--	--	--	6	<1	16	6	12	14	6	12	3	12	--	10	12	--	10	9
140	16	16	1	--	--	11	5	--	--	--	14	3	4	8	5	--	--	14	--	--	--	--	14	3	--	16	--	--	11	5	14	--	2	14	--	2	9
140.05	2	2	1	--	--	1	1	--	--	--	<1	2	--	2	--	--	--	<1	--	--	--	<1	2	--	2	1	--	1	1	--	<1	--	2	<1	--	2	<1
190	93	30	52	10	1	31	51	11	--	<1	54	38	3	42	48	--	24	2	--	--	--	30	23	41	17	46	30	19	33	40	<1	--	67	25	<1	67	22
190.05	1	--	--	1	--	--	1	--	--	--	--	1	--	--	1	--	1	--	--	--	--	--	--	1	--	--	1	--	--	1	1	--	<1	1	--	<1	--
Alternative I-D																																						
Alternative I-D Totals	**171**	**20**	**105**	**41**	**6**	**13**	**67**	**62**	**29**	**1**	**76**	**94**	**32**	**39**	**100**	**--**	**85**	**44**	**--**	**--**	**--**	**59**	**61**	**51**	**10**	**119**	**42**	**11**	**38**	**121**	**114**	**14**	**43**	**114**	**14**	**43**	**7**
20	<1	<1	--	--	--	--	<1	--	--	--	--	<1	--	--	<1	--	--	--	--	--	--	--	<1	--	<1	--	--	--	<1	--	--	--	<1	--	--	<1	--
30	32	7	17	8	--	5	15	12	--	--	15	17	19	1	13	--	--	16	--	--	--	13	10	9	3	29	1	4	10	18	16	--	17	16	--	17	--
40	10	1	2	6	1	1	2	6	1	--	--	10	--	--	10	--	--	5	--	--	--	--	--	10	--	1	9	--	1	9	5	--	5	5	--	5	<1
100	19	<1	14	5	--	<1	19	--	--	--	4	15	--	--	19	--	13	--	--	--	--	3	10	6	<1	13	6	--	14	5	13	--	6	13	--	6	2

Table 3.12-9 Region I Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)[1]				Moderate Sensitivity Viewers (miles)[1]				Scenic Quality (miles)[2]			BLM VRI Classifications (miles)[3]			BLM VRM Classifications (miles)[4]			USFS SIO/VQO Classifications (miles)[5]			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)[8]						Utility Corridor or Utility Window[9]
																						Landscape Scenery[6]			High Sensitivity Viewers[7]			Moderate Sensitivity Viewers[7]			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
110	15	1	10	5	--	--	3	6	6	--	--	15	--	6	9	--	2	6	--	--	--	--	--	15	--	1	14	--	--	15	8	--	7	8	--	7	--
115	7	1	6	<1	--	--	2	5	--	--	--	7	--	3	4	--	--	5	--	--	--	--	--	7	--	1	6	--	--	7	5	--	2	5	--	2	--
115.05	18	3	14	--	--	--	11	7	--	--	15	3	--	4	13	--	7	10	--	--	--	--	15	3	--	18	--	--	--	18	16	2	<1	16	2	<1	--
115.07	18	5	14	--	--	<1	5	7	5	--	12	7	2	11	5	--	18	--	--	--	--	12	7	--	5	14	--	<1	5	13	10	8	<1	10	8	<1	--
115.1	3	--	3	--	--	--	1	2	--	--	3	--	3	--	--	--	3	--	--	--	--	3	--	--	--	3	--	<1	1	2	3	--	--	3	--	--	<1
180.05	14	--	9	3	1	--	1	8	5	--	4	10	3	--	11	--	13	1	--	--	--	4	10	--	--	12	1	--	1	13	14	--	--	14	--	--	1
186	34	2	16	2	4	7	6	10	11	1	23	10	5	14	14	--	27	<1	--	--	--	24	10	--	2	28	4	7	6	21	23	4	6	23	4	6	3
190.05	1	--	--	1	--	--	1	--	--	--	--	1	--	--	1	--	1	--	--	--	--	--	--	1	--	--	1	--	--	1	1	--	<1	1	--	<1	--
Mexican Flats Connector																																						
Mexican Flat Connector Totals	**10**	**2**	**2**	**4**	**2**	**1**	**2**	**3**	**4**	**--**	**<1**	**10**	**--**	**<1**	**10**	**--**	**--**	**9**	**--**	**--**	**--**	**<1**	**2**	**8**	**2**	**2**	**6**	**1**	**1**	**8**	**9**	**<1**	**1**	**9**	**<1**	**1**	**1**
150	4	--	2	2	--	--	1	3	<1	--	--	4	--	--	4	--	--	3	--	--	--	--	--	4	--	2	2	--	--	4	3	--	<1	3	--	<1	--
150.05	2	2	<1	--	--	1	1	--	--	--	<1	2	--	<1	2	--	--	2	--	--	--	<1	2	--	2	<1	--	1	1	2	2	--	<1	2	--	<1	1
160	4	--	--	2	2	--	--	--	4	--	--	4	--	--	4	--	--	4	--	--	--	--	--	4	--	--	4	--	--	4	4	--	<1	4	--	<1	--
Baggs Connector																																						
Baggs Connector Totals	**22**	**2**	**19**	**1**	**--**	**1**	**10**	**11**	**--**	**--**	**20**	**2**	**8**	**12**	**2**	**--**	**18**	**<1**	**--**	**--**	**--**	**20**	**2**	**--**	**2**	**20**	**--**	**1**	**10**	**11**	**13**	**5**	**4**	**13**	**5**	**4**	**<1**
170	3	1	2	--	--	1	2	--	--	--	2	1	--	2	1	--	2	<1	--	--	--	2	1	--	1	2	--	1	2	--	2	<1	1	2	<1	1	<1
170.05	17	--	16	1	--	--	7	10	--	--	17	1	6	10	1	--	14	--	--	--	--	17	1	--	--	17	--	--	7	10	11	3	3	11	3	3	--
170.1	2	1	1	--	--	--	1	1	--	--	2	--	2	--	--	--	2	--	--	--	--	2	--	--	1	1	--	--	1	1	1	1	--	1	1	--	--

Table 3.12-9 Region I Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)[1]				Moderate Sensitivity Viewers (miles)[1]				Scenic Quality (miles)[2]			BLM VRI Classifications (miles)[3]			BLM VRM Classifications (miles)[4]			USFS SIO/VQO Classifications (miles)[5]			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)[8]						Utility Corridor or Utility Window[9]
																						Landscape Scenery[6]			High Sensitivity Viewers[7]			Moderate Sensitivity Viewers[7]			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Fivemile Point North Connector																																					
116 (Total)	3	2	1	--	--	1	2	--	--	--	3	<1	--	3	--	--	2	<1	--	--	--	3	<1	--	2	1	--	1	2	--	<1	2	<1	1	2	<1	1
Fivemile Point South Connector																																					
117 (Total)	2	--	2	--	--	--	2	--	--	--	2	--	--	2	1	--	2	--	--	--	--	2	<1	--	--	2	--	--	2	--	1	<1	<1	1	<1	<1	--

[1] High Sensitivity and Moderate Sensitivity Viewers' analysis and mapping for the Project encompass public and private viewers' concern for landscape scenery (**Appendix I, Tables I-3** and **I-4**; **Appendix I**, **Figure I-4**). The distance and visibility factors are based on the characteristics of TWE facilities, divided into four zones(**Appendix I**, **Tables I-3** and **I-4**; **Appendix I**, **Figures I-4**, **I-5**, and **I-6**).

[2] Scenic Quality or scenic attractiveness is rated Class A, Class B, or Class C for highest to lowest quality or attractiveness (**Appendix I, Table I-1**; **Appendix I, Figures I-2** and **I-3**).

[3] BLM VRI classifications represent this relative value of visual resources and provide the basis for considering visual values in the resource management planning process. VRI Class II, III, and IV (high to low) are determined based on the combination of scenic quality, sensitivity levels, and distance zones. VRI Class I is assigned to special management areas (**Appendix I, Table I-5**; **Appendix I, Figure I-7**).

[4] BLM VRM classifications result from the RMP land use planning process for all BLM-administered lands (**Table 3.12-1**) (**Appendix I, Table I-7**; **Appendix I**, **Figure I-8**).

[5] USFS SIO or VQO Classifications result from the national forest planning process for all USFS-administered lands (**Table 3.12-2**) (**Appendix I, Table I-7**; **Appendix I**, **Figure I-8**).

[6] Residual Impacts for Landscape Scenery (**Table 3.12-7**) involves the comparison of contrasts after mitigation with the scenic quality inventory of the affected environment (**Table 3.12-4**).

[7] Residual Impacts for High Sensitivity and Moderate Sensitivity Viewers (**Table 3.12-5**) involves comparison of contrasts after mitigation with distance zones (**Table 3.12-6**) and viewers' concern levels (**Table 3.12-5**).

[8] BLM VRM, USFS SIO, or USFS VQO Compliance or Consistency (**Table 3.12-8**) involves comparisons of agency management objectives with contrast ratings from 309 KOPs (**KOP Figures** in **Appendix I**).

[9] Calculations associated with Utility Corridors and Utility Windows involve the intersection of the Project reference line with the areas/polygons of the corridors or windows. These corridors or windows take precedence over the compliance and consistency determinations and as such negate the need for updates of the land use plans.

Note: Discrepancies in totals due to rounding. Segment numbers depicted in **Figure 2-21**.

Table 3.12-10 Region I Scenic Quality Class Changes by Alternative and Segment

Alternative/Segment	Total Miles	Class A to B	Class B to C	No Change
Alternative I-A				
20	<1	--	--	<1
30	32	--	--	32
40	10	--	--	10
100	19	--	--	19
110	15	--	--	15
110.05	4	--	--	4
120	23	--	2	21
180	2	--	2	--
180.05	14	--	4	10
180.2	35	--	26	9
Alternative I-B				
20	<1	--	--	<1
30	32	--	--	32
40	10	--	--	10
50	5	--	--	5
60	19	--	--	19
70	22	--	1	21
100	19	--	--	19
180	2	--	2	--
180.05	14	--	4	10
186	34	--	22	12
190.05	1	--	--	1
Alternative I-C				
20	<1	--	--	<1
30	32	--	--	32
100	19	--	--	19
130	22	--	6	16
140	17	--	14	3
140.05	2	--	<1	2
190	93	<1	11	81
190.05	1	--	--	1
Alternative I-D				
20	<1	--	--	<1
30	32	--	--	32
40	10	--	--	10

Table 3.12-10 Region I Scenic Quality Class Changes by Alternative and Segment

Alternative/Segment	Total Miles	Class A to B	Class B to C	No Change
100	19	--	--	19
110	15	--	--	15
115	7	--	--	7
115.05	18	--	15	3
115.07	19	--	12	7
115.1	3	--	3	--
180.05	14	--	4	10
186	34	--	22	12
190.05	1	--	--	1
Mexican Flats Connector				
150	4	--	--	4
150.05	2	--	<1	2
160	4	--	--	4
Baggs Connector				
170	3	--	2	1
170.05	17	--	16	1
170.1	2	--	2	--
Fivemile Point North Connector				
116	3	--	3	<1
Fivemile Point South Connector				
117	2	--	2	<1

Segment numbers depicted in **Figure 2-21**.

Public Viewers and Visibility of the Project

Immediate foreground (0 to 0.5-mile) visibility of the Project is influential in the experiences of viewers and indicative of the level of impacts to people. The following **Table 3.12-11** indicates visibility by alternative and segment for those immediate foreground public places, designated special management areas, lakes and reservoirs, rivers, roads, scenic byways and backways, and historic trails where visual resources are important to recreational and viewer experiences. Viewing situations in these locations are both stationary and mobile.

Table 3.12-11 Region I Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
I-A	30	Coal Creek, Continental Divide National Scenic Trail, Continental Divide Trail, Hay Gulch, Rawlins to Baggs Rd, Rawlins to Baggs Stage Rd, Red Rim-Daley, SR 71, Twentymile Rd 3 Residences
I-A	40	SR 789, The Outlaw Trail Scenic Loop 0 Residences
I-A	100	Lower Wolf Creek Reservoir Number 2, Tuttle Ranch, Winter Valley 0 Residences

Table 3.12-11 Region I Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
I-A	110	8 Mile Lake Rd, Coal Bank Wash, Echo Springs Draw, Eightmile Lake, Fivemile Lake, Wamsutter Rd 0 Residences
I-A	110.05	Coal Gulch, North Barrel Springs Draw 0 Residences
I-A	120	Cedar Breaks Draw, StandaRd Rd, W Hangout Rd, West Flat Top Mountain 0 Residences
I-A	180.05	CR 4, CR 66 0 Residences
I-A	180.2	Camping Unit - North, Camping Unit - South, CR 10, CR 21, CR 21s, CR 66, CR 66b, CR 66n, CR 66w, CR 75, CR 75e, CR 75s, CR 85, East Cross Mtn. River Access, HWY 318, Raftopolis Hunting Lease WMA, Raftopolis Ranch SWA, Sevenmile Ridge, US 40 1 Residence
I-B	30	Coal Creek, Continental Divide National Scenic Trail, Continental Divide Trail, Hay Gulch, Rawlins to Baggs Rd, Rawlins to Baggs Stage Rd, Red Rim-Daley, SR 71, Twentymile Rd 3 Residences
I-B	40	SR 789, The Outlaw Trail Scenic Loop 0 Residences
I-B	50	Wamsutter Crooks Gap Rd 0 Residences
I-B	60	Barrel Springs Rd, Eureka Headquarters Rd 0 Residences
I-B	70	4wd Rd, Adobe Town Dispersed Recreation Use Area, Cherokee Trail, Cherokee Trail Rd, Church Butte, Lower Willow Creek Spring, Reader Cabin Draw, Shell Creek Stock Trl, Windmill Draw Rd 0 Residences
I-B	100	Lower Wolf Creek Reservoir Number 2, Tuttle Ranch, Winter Valley 0 Residences
I-B	180.05	CR 4, CR 66 0 Residences
I-B	186	Cedar Springs Draw, CR 10, CR 21, CR 26, CR 66, CR 66n, CR 85, HWY 318, Lone Tree Gulch, Reservoir Spring, South Cross Mtn. Trailhead, Spence Gulch, US 40 0 Residences
I-C	30	Coal Creek, Continental Divide National Scenic Trail, Continental Divide Trail, Hay Gulch, Rawlins to Baggs Rd, Rawlins to Baggs Stage Rd, Red Rim-Daley, SR 71, Twentymile Rd 3 Residences
I-C	100	Lower Wolf Creek Reservoir Number 2, Tuttle Ranch, Winter Valley 0 Residences
I-C	130	Coal Bank Spring, Overland Trail, Pine Butte, Upper Muddy Creek/Grizzly ACEC 1 Residence
I-C	140	Blue Gap Draw, Cherokee Creek, Little Robbers Gulch, Pines Draw, Rawlins to Baggs Stage Rd, Robbers Gulch, Wild Cow Rd, Wild Horse Draw 0 Residences
I-C	140.05	Deep Creek, White Rock Draw 0 Residences

Table 3.12-11 Region I Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
I-C	190	4wd Rd, 5th Ave, Access Rd, Aiken St, Battle Scenic Highway, Bitter Brush SWA, Blue Gravel Creek, Bogenschutz Creek, Burbank Draw, Cc Rd 601, Cc Rd 702, Cottonwood Creek, CR 100, CR 101, CR 103, CR 107, CR 11, CR 110, CR 117, CR 120, CR 13, CR 139, CR 143, CR 17, CR 173, CR 18, CR 2, CR 213, CR 23, CR 27, CR 30, CR 33, CR 35, CR 38, CR 40, CR 53, CR 57, CR 59, CR 70, CR 73, CR 74, CR 78, CR 86, CR 90, Craig Raw Water Reservoir, Culverwell Reservoir, Dry Cottonwood Creek, East Juniper Mtn. Trailhead, Hicox Draw, Johnson Gulch, Juniper Mountain SRMA, Little Cottonwood Creek, Mesa Ave, Mexican Creek, Rangely Way, Roberts Rd, Saddorus Rd, Sheehan Lane Rd, South Beach Trail Area, SR 13, SR 394, SR 70, Thompson Way, Union St, US 40, W Mesa Rd, Wheatridge Dr, Willow Creek, Wilson St, Yampa River 114 Residences
I-D	30	Coal Creek, Continental Divide National Scenic Trail, Continental Divide Trail, Hay Gulch, Rawlins to Baggs Rd, Rawlins to Baggs Stage Rd, Red Rim-Daley, SR 71, Twentymile Rd 3 Residences
I-D	40	SR 789, The Outlaw Trail Scenic Loop 0 Residences
I-D	100	Lower Wolf Creek Reservoir Number 2, Tuttle Ranch, Winter Valley 0 Residences
I-D	110	8 Mile Lake Rd, Coal Bank Wash, Echo Springs Draw, Eightmile Lake, Fivemile Lake, Wamsutter Rd 0 Residences
I-D	115	Duck Lake, Duck Lake Rd, Little Coal Gulch 0 Residences
I-D	115.05	Hangout Rd, Little Robbers Rd, North Fork Cottonwood Creek, Straten Rd, Streckfus Draw 0 Residences
I-D	115.07	Cottonwood Draw Rd, Government Rd, Hangout Wash, North Prong Red Creek 0 Residences
I-D	115.1	Cherokee Draw 0 Residences
I-D	180.05	CR 4, CR 66 0 Residences
I-D	186	Cedar Springs Draw, CR 10, CR 21, CR 26, CR 66, CR 66n, CR 85, HWY 318, Lone Tree Gulch, Reservoir Spring, South Cross Mtn. Trailhead, Spence Gulch, US 40 0 Residences
Mexican Flats Alternative Connector	150.05	SR 789, Wamsutter Rd 0 Residences
Baggs Alternative Connector	170.05	4wd Rd, Cherokee Rim, CR 144, Devils Canyon, Poison Buttes, Red Creek
Fivemile Point North Alternative Connector	116	Cottonwood Creek, Cottonwood Draw, Rawlins to Baggs Stage Rd, The Bluffs 0 Residences
Fivemile Point South Alternative Connector	117	4wd Rd. 0 Residences

Segment numbers depicted in **Figure 2-21**.

Vegetation Treatments

Scenarios for vegetation treatments are listed in the PDTR (**Appendix D**). Clearing of plants above 4 feet in height would occur in the 250-foot-wide ROW unless otherwise specified in the PDTR. Only the 90-foot-wide “wire zone” and 250-foot-square structure construction area would be cleared in corridors classified as VRM Class II, SIO High, and VQO Retention. Key factors in the determination of impacts to the visual resource include viewing distances, presence or absence of tree cover, and steepness of topographic slopes. Application of **VR-1** would preserve pinyon-juniper trees, except for those impeding

tower and access road construction. The edges between clearings and forest would be feathered in all species. The presence of moderate to steep slopes increases visibility of vegetation treatments for ROWs and for access roads, as compared to flat slopes. These factors are included in the analysis of impacts to scenery and to sensitive viewers. Reclamation recovery time analyses, specific to views from the 294 KOPs and involving topographic slope, topographic aspect and vegetation type, are shown in **Appendix I**, **Table I-10**. The results are central components in **Table 3.12-9**.

The geographic context, distances, and spatial relationship between visual resources and the Project reference lines by segment and milepost for Region I are portrayed by tables and maps of scenic quality classes (**Appendix I**, **Table I-1** and **Figure I-2**), sensitivity levels (**Appendix I**, **Table I-2** and **Figure I-4**), visual resource inventory classes (**Appendix I**, **Table I-5** and **Figure I-7**), and visual resource management classes (**Appendix I**, **Table I-6** and **Figure I-8**). All BLM VRI distance zones were inventoried as foreground-middleground for the Project study area and are therefore not shown with map figures. Project-specific distance zones are included in the analyses for impacts to landscape scenery, sensitive viewers, and compliance or consistency with BLM or USFS management objectives, respectively.

There were 41 KOPs selected, photographed, and analyzed in Region I. The KOP figures in **Appendix I** portray the location information for each KOP, photograph of the existing condition for each KOP, estimated structure locations, Google Earth 3D locations and heights of Project structures, associated visual contrast rating form analysis, compliance with agency management objectives, and recommended mitigation. Thirty-one photographic simulations of the Project in Region I, for those KOP locations where agency management objectives would not be met, are shown in the KOP figures in **Appendix I** and shown in a photographic figure following each applicable KOP in the KOP figures in **Appendix I**.

Estimates of impacts to scenery and impacts to humans are based on comparisons of the Project's visual characteristics with characteristics of the landscape and locations and visual sensitivities of people. Compliance or consistency with agency management objectives is based on the agencies' planned limits of acceptable alteration or changes to the landscape. The Project's visual characteristics, affected environment, and analysis of environmental effects are documented in this report and in **Appendix I**.

Alternative I-A (Applicant Proposed)

Alternative I-A would cross 155 miles of landscapes in the Wyoming Basin Province (Section 3.12.5.1). It would cross the Continental Divide Trail, Outlaw Scenic Highway, Overland Trail, Old Cherokee Trail-South, Little Snake River, Yampa River, and U.S. 40, in addition to several recreational roads and trails (**Table 3.12-11**), and would be "sky-lined" (increased impact) in those areas. Recreationally important landscapes include the Cedar Breaks Draw, Sand Wash Basin, Little Snake River, and Yampa River Valley/Cross Mountain areas, where the Project's guyed and, substantially more dominant, self-supported structures would stand out visually more than they would if seen with existing transmission line structures or oil and gas facilities. Landscape photography and project simulations are located in **Appendix I**, in the Rawlins and Little Snake FO sections. Alternative I-A would be visible in the immediate foreground from four residences. Thirty-seven percent of Alternative I-A would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Five percent of Alternative I-A would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5 miles) viewing situations (**Table 3.12-11**). Three percent of Alternative I-A would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view. Alternative I-A is comparable to Alternative I-B and Alternative I-D, except where it would cross the Cedar Breaks Draw area which would cause increased impacts over Alternative I-B. Alternative I-A has decreased impacts as compared with Alternative I-C. Three percent of the Alternative I-A reference line would be located within a

utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

The Tuttle Easement micro-siting options could be utilized with outcomes similar to those discussed under Alternative I-D.

Alternative I-B

Alternative I-B would cross 159 miles of landscapes in the Wyoming Basin Province (Section 3.12.5.1). It would cross the Continental Divide Trail, Outlaw Scenic Highway, Overland Trail, Old Cherokee Trail-South, Little Snake River, Yampa River, and U.S. 40, in addition to several recreational roads and trails (**Table 3.12-11**), and would be "sky-lined" (increased impact) in those areas. Segment 70 blends visually with an existing cleared pipeline ROW. Recreationally important landscapes include the Cedar Breaks Draw, Sand Wash Basin, Little Snake River, and Yampa River Valley/Cross Mountain areas, where the Project's guyed and, substantially more dominant, self-supported structures would stand out visually more than they would if seen with existing transmission line structures or oil and gas facilities. Landscape photography and project simulations are located in **Appendix I**, in the Rawlins and Little Snake FO sections. Alternative I-B would be visible in the immediate foreground from three residences. Thirty-six percent of Alternative I-B would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Four percent of Alternative I-B would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5 miles) viewing situations (**Table 3.12-11**). Five percent of Alternative I-B would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view. Alternative I-B is comparable to Alternative I-A and Alternative I-D, except where it would parallel the existing cleared pipeline ROW which would cause decreased impacts over Alternative I-A and Alternative I-D. Alternative I-B has decreased impacts as compared with Alternative I-C. Eleven percent of the Alternative I-B reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

The Tuttle Easement micro-siting options could be utilized with outcomes similar to those discussed under Alternative I-D.

Alternative I-C

Alternative I-C would cross 186 miles of landscapes in the Wyoming Basin Province (Section 3.12.5.1). It would closely parallel the Outlaw Scenic Highway in Wyoming and Colorado State Highway 13 in Colorado. It would cross the Continental Divide Trail, Outlaw Scenic Highway, Overland Trail, Old Cherokee Trail-South, Little Snake River east of Baggs, Yampa River east of Craig, and U.S. 40, in addition to several recreational roads and trails (**Table 3.12-11**), and would be "sky-lined" (increased impact) in those areas. Recreationally important landscapes include the Little Snake River and Yampa River Valley areas, where the Project's guyed and, substantially more dominant, self-supported structures would stand out visually more than they would if seen with existing transmission line structures or oil and gas facilities. It would closely parallel the Yampa River in the Juniper Mountain area west of Craig, however it is co-located with an existing 345-kV steel lattice and wooden H-frame transmission lines. Landscape photography and project simulations are located in **Appendix I**, in the Rawlins and Little Snake FO sections. Alternative I-C would be visible in the immediate foreground from 118 residences. Twenty-eight percent of Alternative I-C would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Fifteen percent of Alternative I-C would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-11**). Less than 1 percent of Alternative I-C would not comply with

agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view. Alternative I-C has increased impacts as compared with Alternative I-A, I-B, and I-D. Twenty-three percent of the Alternative I-C reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

The Tuttle Easement micro-siting options could be utilized with outcomes similar to those discussed under Alternative I-D.

Alternative I-D (Agency Preferred)

Alternative I-D would cross 171 miles of landscapes in the Wyoming Basin Province (Section 3.12.5.1). It would cross the Continental Divide Trail, Outlaw Scenic Highway, Overland Trail, Old Cherokee Trail-South, Little Snake River, Yampa River, and U.S. 40, in addition to several recreational roads and trails (**Table 3.12-11**) and would be "sky-lined" (increased impact) in those areas. Recreationally important landscapes include the Cedar Breaks Draw, Sand Wash Basin, Little Snake River, and Yampa River Valley/Cross Mountain areas, where the Project's guyed and, substantially more dominant, self-supported structures would stand out visually more than they would if seen with existing transmission line structures or oil and gas facilities. Landscape photography and project simulations are located in **Appendix I**, in the Rawlins and Little Snake FO sections. Alternative I-D would be visible in the immediate foreground from three residences. Thirty-four percent of Alternative I-D would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Six percent of Alternative I-D would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-11**). Eight percent of Alternative I-D would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view. Alternative I-D is comparable to Alternative I-A and Alternative I-B, except where it would cross the Cedar Breaks Draw area which would cause increased impacts over Alternative I-B. Alternative I-D has decreased impacts as compared with Alternative I-C. Four percent of the Alternative I-D reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Tuttle Easement Micro-siting Option 1

The Tuttle Easement Option 1 would cross landscapes in the Wyoming Basin Province (Section 3.12.5.1) and Uintah Basin Section of the Colorado Plateaus Province (Section 3.12.5.2). It would closely parallel and is located on the far side of two existing transmission lines in the area near U.S. 40 and Deer Lodge Road, an entry road to Dinosaur National Monument. These circumstances would result in lower visual contrasts than Tuttle Easement Option 2 or Tuttle Easement Option 3. The Tuttle Easement Option 1 would have decreased impacts as compared to Tuttle Easement Option 2 and Tuttle Easement Option 3. Thirty percent of the Tuttle Easement Micro-siting Option 1 reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor. Field photography and preparation of visual contrast rating worksheets for this option will be completed for the Final EIS.

Tuttle Easement Micro-siting Option 2

The Tuttle Easement Option 2 would cross landscapes in the Wyoming Basin Province (Section 3.12.5.1) and Uintah Basin Section of the Colorado Plateaus Province (Section 3.12.5.2). It would cross U.S. 40, a turnout/parking area, and the intersection with Deer Lodge Road, an entry road to Dinosaur National

Monument, and would closely parallel U.S. 40. It would cross these locations with the more visually dominant self-supporting structures at acute angles in two places. It would be “sky-lined” (increased impact) in those areas and have higher contrasts than Tuttle Easement Option 1 or Tuttle Easement Option 3. The Tuttle Easement Option 2 would cause high impacts to high sensitivity recreational viewers in immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-11**). Tuttle Easement Option 2 would cross VRM Class III landscapes in the same location as Tuttle Easement Option 3, where changes may attract attention, but should not dominate the view of the casual observer. Tuttle Easement Option 2 would have increased impacts as compared to Tuttle Easement Option 1 and Tuttle Easement Option 3. Seventeen percent of the Tuttle Easement Micro-siting Option 2 reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor. Field photography, preparation of visual contrast rating worksheets, and visual simulations for this option will be completed for the Final EIS.

Tuttle Easement Micro-siting Option 3

The Tuttle Easement Option 3 would cross landscapes in the Wyoming Basin Province (Section 3.12.5.1) and Uintah Basin Section of the Colorado Plateaus Province (Section 3.12.5.2). It would cross Deer Lodge Road, an entry road to Dinosaur National Monument, and would be “sky-lined” (increased impact) in this area. The Tuttle Easement Option 3 would cause high impacts to high sensitivity recreational and residential viewers at the Deer Lodge Road crossing. This location is associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-11**). Tuttle Easement Option 3 would cross VRM Class III landscapes in the same location as Tuttle Easement Option 2, where changes may attract attention, but should not dominate the view of the casual observer. The Tuttle Easement Option 3 would have increased impacts as compared Tuttle Easement Option 1 and decreased impacts as compared to Tuttle Easement Option 2. Seventeen percent of the Tuttle Easement Micro-siting Option 3 reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor. Field photography, preparation of visual contrast rating worksheets, and visual simulations for this option will be completed for the Final EIS.

<u>Alternative Connectors in Region I</u>

Mexican Flat Connector

The Mexican Flat Connector cross 10 miles of landscapes in the Wyoming Basin Province (Section 3.12.5.1). It would cross the Outlaw Scenic Highway and would be “sky-lined” (increased impact) in that area, and also cross several minor service roads. The Mexican Flat Connector would be seen in the immediate foreground from zero residences. Less than 1 percent of the Mexican Flat Connector cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Twenty percent of the Mexican Flat Connector cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-11**). Less than 1 percent of the Mexican Flat Connector would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. The Mexican Flat Connector would exclude the need for Alternatives I-A, I-C, and I-D segments southward and take advantage of the decreased impacts of Alternative I-B and its existing cleared pipeline ROW. Ten percent of the Mexican Flat Connector reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Fivemile Point North Connector

The Fivemile Point North Connector would cross 3 miles of landscapes in the Wyoming Basin Province (Section 3.12.5.1). It is located in the footprint of the Stock Trail Road (a major recreational road) for 2.5 miles and would cross the Outlaw Scenic Highway. It would be “sky-lined” (increased impact) in those

areas. The Fivemile Point North Connector is in the immediate foreground from zero residences. One hundred percent of the Fivemile Point North Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Sixty-seven percent of the Fivemile Point North Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-11**). Sixty-seven percent of the Fivemile Point North Connector would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. The Fivemile Point North Connector would exclude the need for Alternative I-C segments southward. The Fivemile Point North Connector has greatly increased impacts over all other alternatives for its 2.5-mile reach. Thirty-three percent of the Fivemile Point North Connector reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Fivemile Point South Connector

The Fivemile Point South Connector would cross 2 miles of landscapes in the Wyoming Basin Province (Section 3.12.5.1). It would cross the Stock Trail Road (a major recreational road) and would be “sky-lined” (increased impact) in that area. The Fivemile Point South Connector is in the immediate foreground from zero residences. One hundred percent of the Fivemile Point South Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). None of the Fivemile Point South Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-11**). Less than 1 percent of the Fivemile Point South Connector would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. The Fivemile Point South Connector would have decreased impacts over its reach, but would involve the increased impacts of the Baggs Connector and, possibly, Alternative I-C, which has increased impacts over Alternatives I-A, I-B, and I-D. None of the Fivemile Point South Connector reference line would be located within a utility corridor or utility window.

Baggs Connectors

The Baggs Connectors cross 22 miles of landscapes in the Wyoming Basin Province (Section 3.12.5.1). They cross the Outlaw Scenic Highway, Old Cherokee Trail-South, in addition to several recreational roads and trails (**Table 3.12-11**), and would be “sky-lined” (increased impact) in those areas. Recreationally important landscapes include the Fivemile Point, Tincan Hill, Poison Buttes, Snake River Valley, Cherokee Rim, and Cherokee Draw areas, where the Project’s guyed and, substantially more dominant self-supported structures would stand out visually more than they would if seen with existing transmission line structures or oil and gas facilities. The Baggs Connectors would be seen in the immediate foreground from zero residences. Ninety-one percent of the Baggs Connectors cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Nine percent of the Baggs Connectors cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-11**). Twenty-three percent of the Baggs Connectors would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. The Baggs Connectors have increased impacts as compared with the Mexican Flats Connectors. The Baggs Connectors would exclude the need for I-C segments (increased impacts) southward. Less than 1 percent of the Baggs Connector reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

3.12.6.5 Region II

Impact parameters relate to the impact discussion in Section 3.12.6.3, Impacts Common to all Alternative Routes and Associated Components, and differences by alternative are presented below. The segment-specific table information for high and moderate sensitivity viewers distance zones, scenic quality, visual resource inventory classifications, agency management classifications, residual Impacts, compliance or consistency with BLM VRM, USFS SIO or VQO, and intersection of the Project reference line with utility corridors or utility windows are summarized in **Table 3.12-12**.

Segment- and milepost-specific Region I inventory data and impact results for these topics are shown in the corresponding tables in **Appendix I**. The KOP figures in **Appendix I** indicate the location information for each KOP, photograph of the existing condition for each KOP, estimated structure locations, Google Earth 3D locations and heights of Project structures, associated visual contrast rating form analysis, compliance with agency management objectives, and recommended mitigation.

Residual Impacts

The application of substantive mitigation measures would reduce visual impacts from high to moderate, or moderate to low. These reductions are applicable to viewing situations involving stationery (non-linear) viewers and to landscapes where tree cover and moderate to steep landforms contribute strongly to visual impacts. Residual impacts by Alternative and Segment are listed for landscape scenery, high viewer sensitivity and moderate viewer sensitivity in **Table 3.12-12**. Residual impacts by Region, Alternative, Segment, and mileposts (as if, “walking the line”) are listed in the corresponding tables in **Appendix I**.

Compliance or Consistency with Agency Management Objectives

Maps showing locations where agency management objectives would be met and would not be met are shown in **Appendix I**, **Figure I-12**. Photographic simulations of the Project, for those KOP locations where agency management objectives would not be met, are shown in the KOP figures in **Appendix I** following the applicable KOP analysis sheet. Maps showing locations where applications of mitigation **VR-4** to the reference line would reduce impacts to levels compliant or consistent with agency management objectives are shown in **Appendix I**, **Figure I-13**. Maps showing locations where agency management objectives would be met with mitigation and where agency management objectives are not applicable are shown in **Appendix I**, **Figure I-14**. Mitigation **VR-4** would be applicable to, and subject to routing engineering study for, reference lines within 0.5 mile of linear KOPs, except for those reference lines crossing roads. Designated utility corridors considered in the analysis are shown in **Appendix I**, **Figure I-15**.

Scenic Quality

Existing scenic quality may be lowered by the Project, depending on the context. This is determined based on analysis of existing scenic quality rating/scores, existing landscape character, presence or absence of existing industrial development (transmission lines, pipelines, land disturbances, etc.), and the effect of introducing the Project into the landscape as either a new or additional cultural modification. Those segments where the existing scenic quality would be lowered by the Project to a lower class (Class A to Class B or Class B to Class C) are shown in **Table 3.12-13**. Segment- and milepost-specific data for change in scenic quality is shown in **Appendix I**, **Table I-12**.

Public Viewers and Visibility of the Project

Immediate foreground (0 to 0.5-mile) visibility of the Project is influential in the experiences of viewers and indicative of the level of impacts to people. The following **Table 3.12-14** indicates visibility by alternative and segment for those immediate foreground public places, designated special management areas, lakes and reservoirs, rivers, roads, scenic byways and backways, and historic trails where visual resources are important to recreational and viewer experiences. Viewing situations in these locations are both stationary and mobile.

Table 3.12-12 Region II Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)[1]				Moderate Sensitivity Viewers (miles)[1]				Scenic Quality (miles)[2]			BLM VRI Classifications (miles)[3]			BLM VRM Classifications (miles)[4]			USFS SIO/VQO Classifications (miles)[5]			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)[8]						Utility Corridor or Utility Window[9]
																						Landscape Scenery[6]			High Sensitivity Viewers[7]			Moderate Sensitivity Viewers[7]			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Alternative II-A																																					
Alternative II-A Total	**257**	**78**	**127**	**35**	**17**	**72**	**132**	**44**	**9**	**<1**	**139**	**118**	**9**	**33**	**111**	**--**	**48**	**51**	**<1**	**21**	**--**	**97**	**78**	**82**	**61**	**116**	**80**	**55**	**93**	**109**	**116**	**4**	**137**	**117**	**3**	**137**	**29**
210	26	2	23	1	--	8	18	--	--	--	--	26	--	--	26	--	19	--	--	--	--	--	15	11	2	13	11	2	18	5	19	--	6	19	--	6	10
211	8	--	2	6	--	--	1	3	5	--	8	<1	--	--	8	--	8	1	--	--	--	8	<1	--	--	8	--	--	1	8	8	--	<1	8	--	<1	1
212	13	--	4	7	2	2	6	3	2	--	13	--	--	--	13	--	3	10	--	--	--	--	--	13	--	--	13	--	2	11	13	--	--	13	--	--	5
213	13	2	11	1	--	1	4	7	2	<1	3	10	--	--	13	--	4	8	--	--	--	--	<1	13	--	2	12	--	1	13	11	--	2	11	--	2	11
320.05	24	12	11	--	--	6	11	8	--	--	15	8	--	--	5	--	1	3	--	--	--	8	4	11	10	4	10	4	4	16	4	--	20	4	--	20	--
320.1	74	36	37	1	--	21	49	4	--	--	55	19	1	--	--	--	--	--	--	18	--	37	15	22	27	33	14	19	23	32	16	2	56	16	2	56	1
320.15	28	12	15	--	--	8	13	7	--	--	26	2	7	--	8	--	--	--	<1	3	--	26	2	--	12	15	--	8	13	7	3	0	25	3	0	25	--
320.2	7	3	4	--	--	3	3	1	--	--	5	2	--	1	6	--	1	1	--	--	--	5	2	--	3	4	--	3	3	1	2	<1	5	2	--	5	--
340	20	8	12	--	--	12	7	1	--	--	8	12	--	15	5	--	1	2	--	--	--	8	2	10	4	11	6	7	8	5	3	--	17	3	--	17	--
360	26	<1	2	9	14	10	11	4	--	--	5	21	--	14	12	--	12	10	--	--	--	5	21	--	<1	12	14	10	11	4	20	2	4	21	1	4	1
430	18	3	5	9	1	2	9	7	--	--	--	18	--	3	15	--	--	16	--	--	--	--	18	--	3	14	1	2	9	7	16	--	2	16	--	2	--
Alternative II-B																																					
Alternative II-B Total	**345**	**95**	**197**	**38**	**15**	**170**	**146**	**29**	**--**	**1**	**131**	**213**	**19**	**49**	**243**	**5**	**135**	**66**	**3**	**18**	**--**	**96**	**134**	**115**	**43**	**236**	**66**	**83**	**183**	**79**	**176**	**51**	**118**	**214**	**13**	**118**	**142**
220.1	181	63	93	12	10	112	59	7	--	1	66	115	14	25	142	5	115	32	--	--	--	48	61	71	22	123	33	53	94	31	109	43	29	144	9	29	111
222.05	41	9	26	6	--	17	19	5	--	--	17	24	--	10	31	--	13	18	--	--	--	6	26	10	3	38	--	6	21	15	27	4	10	31	--	10	19
222.3	15	1	6	8	--	2	8	5	--	--	1	14	5	<1	9	--	1	<1	--	--	--	--	--	15	--	1	13	--	2	13	2	--	13	2	--	13	<1
310	49	16	31	2	--	15	25	9	--	--	28	21	--	1	23	--	5	--	--	18	--	27	17	6	13	34	2	12	25	12	21	1	27	21	1	27	2
350	15	4	11	--	--	6	8	--	--	--	9	6	--	12	3	--	--	3	--	--	--	9	6	--	4	11	--	6	8	--	3	--	12	3	--	12	1
370	14	<1	4	5	4	1	11	3	--	--	8	6	--	--	13	--	--	7	1	<1	--	4	6	4	--	8	7	1	5	8	7	1	6	7	1	6	5
380	13	<1	12	--	--	4	9	--	--	--	2	10	--	--	10	--	<1	<1	2	<1	--	2	10	--	<1	12	--	4	9	--	<1	2	10	<1	2	10	3
420	8	--	3	5	--	2	6	--	--	--	--	8	--	--	8	--	1	4	--	--	--	--	7	1	--	7	1	<1	8	--	5	--	3	5	--	3	--
440	9	--	9	--	--	9	--	--	--	--	--	8	--	1	4	--	--	1	--	--	--	--	--	8	--	--	9	--	9	--	1	--	8	1	--	8	--
Alternative II-C																																					
Alternative II-C Total	**364**	**91**	**215**	**48**	**10**	**207**	**142**	**15**	**--**	**3**	**124**	**237**	**22**	**64**	**242**	**5**	**159**	**55**	**9**	**20**	**--**	**84**	**143**	**137**	**33**	**247**	**81**	**111**	**184**	**69**	**181**	**66**	**117**	**217**	**31**	**117**	**141**
220.1	181	63	93	12	10	112	59	7	--	1	66	115	14	25	142	5	115	32	--	--	--	48	61	71	22	123	33	53	94	31	109	43	29	144	9	29	111
225.2	38	6	24	8	--	26	12	--	--	--	15	23	8	23	7	--	22	--	--	--	--	12	16	11	3	27	8	20	13	5	12	10	16	12	10	16	10
330.1	99	19	61	19	--	44	48	7	--	2	43	55	--	14	58	--	14	16	7	16	--	23	30	47	6	62	31	23	44	32	43	10	46	43	3	18	13
410	37	2	26	9	--	15	22	<1	--	--	1	36	--	--	31	--	7	7	2	4	--	1	36	--	2	35	--	15	22	<1	17	3	18	17	3	18	6
440	9	--	9	--	--	9	--	--	--	--	--	8	--	1	4	--	--	1	--	--	--	--	--	8	--	--	9	--	9	--	1	--	8	1	--	8	--

Table 3.12-12 Region II Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)[1]				Moderate Sensitivity Viewers (miles)[1]				Scenic Quality (miles)[2]			BLM VRI Classifications (miles)[3]			BLM VRM Classifications (miles)[4]			USFS SIO/VQO Classifications (miles)[5]			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)[8]						Utility Corridor or Utility Window[9]
																						Landscape Scenery[6]			High Sensitivity Viewers[7]			Moderate Sensitivity Viewers[7]			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Alternative II-D																																					
Alternative II-D Total	**262**	**51**	**116**	**50**	**45**	**72**	**104**	**47**	**39**	**25**	**98**	**139**	**40**	**62**	**138**	**2**	**50**	**94**	**<1**	**8**	**--**	**103**	**98**	**61**	**47**	**142**	**73**	**50**	**101**	**111**	**143**	**11**	**108**	**146**	**8**	**108**	**82**
210	26	2	23	1	--	8	18	--	--	--	--	26	--	--	26	--	19	--	--	--	--	--	15	11	2	13	11	2	18	5	19	--	6	19	--	6	10
214	10	--	5	5	--	--	1	3	6	--	9	1	--	--	10	--	6	1	--	--	--	9	1	--	--	10	--	--	1	9	6	--	4	6	--	4	7
215	8	1	3	3	2	1	2	3	2	--	1	7	--	--	8	--	--	8	--	--	--	--	--	8	--	1	7	--	1	7	8	--	--	8	--	--	8
217.01	79	15	23	13	28	19	21	14	25	11	29	38	22	9	42	2	6	55	--	--	--	27	15	37	15	27	37	11	15	53	57	5	16	57	5	16	51
217.02	16	1	15	--	--	--	1	10	6	13	1	1	16	--	--	--	2	--	--	--	--	15	1	--	1	15	--	--	1	15	2	--	14	2	--	14	--
217.1	21	9	6	6	1	11	8	2	--	--	12	9	2	14	5	--	2	1	--	--	--	7	10	4	6	13	2	5	12	4	2	<1	19	2	<1	19	2
217.15	36	13	18	5	--	10	22	4	--	--	26	10	--	9	11	--	3	--	<1	8	--	26	9	1	13	22	1	10	21	5	7	4	25	9	2	25	3
320.2	7	3	4	--	--	3	3	1	--	--	5	2	--	1	6	--	1	1	--	--	--	5	2	--	3	4	--	3	3	1	2	--	5	2	<1	5	--
350	15	4	11	--	--	6	8	--	--	--	9	6	--	12	3	--	--	3	--	--	--	9	6	--	4	11	--	6	8	--	3	--	12	3	--	12	1
360	26	<1	2	9	14	10	11	4	--	--	5	21	--	14	12	--	12	10	--	--	--	5	21	--	<1	12	14	10	11	4	20	2	4	21	1	4	1
430	18	3	5	9	1	2	9	7	--	--	--	18	--	3	15	--	--	16	--	--	--	--	18	--	3	14	1	2	9	7	16	--	2	16	--	2	--
Alternative II-E																																					
Alternative II-E Total	**266**	**84**	**125**	**35**	**22**	**71**	**118**	**50**	**27**	**10**	**135**	**121**	**31**	**45**	**113**	**--**	**44**	**56**	**<1**	**23**	**--**	**109**	**98**	**59**	**67**	**137**	**62**	**49**	**100**	**117**	**121**	**2**	**143**	**121**	**1**	**143**	**71**
210	26	2	23	1	--	8	18	--	--	--	--	26	--	--	26	--	19	--	--	--	--	--	15	11	2	13	11	2	18	5	19	--	6	19	--	6	10
213	13	2	11	1	--	1	4	7	2	<1	3	10	--	--	13	--	4	8	--	--	--	--	<1	13	--	2	12	--	1	13	11	--	2	11	--	2	11
214	10	--	5	5	--	--	1	3	6	--	9	1	--	--	10	--	6	1	--	--	--	9	1	--	--	10	--	--	1	9	6	--	4	6	--	4	7
215	8	1	3	3	2	1	2	3	2	--	1	7	--	--	8	--	--	8	--	--	--	--	--	8	--	1	7	--	1	7	8	--	--	8	--	--	8
215.05	7	--	--	2	5	<1	7	--	--	--	6	<1	--	--	7	--	1	6	--	--	--	--	--	7	--	--	7	--	<1	7	7	--	--	7	--	--	7
217.051	21	6	13	2	--	10	11	--	--	<1	12	9	9	12	--	--	<1	--	--	--	--	9	7	5	2	19	--	3	17	1	<1	--	21	<1	--	21	<1
217.052	16	13	3	--	--	12	5	--	--	1	12	3	8	--	--	--	--	--	<1	9	--	13	3	<1	12	5	--	11	6	--	9	<1	8	9	<1	8	7
320.05	24	12	11	--	--	6	11	8	--	--	15	8	--	--	5	--	1	3	--	--	--	8	4	11	10	4	10	4	4	16	4	--	20	4	--	20	--
320.15	28	12	15	--	--	8	13	7	--	--	26	2	7	--	8	--	--	--	<1	3	--	26	2	--	12	15	--	8	13	7	3	<1	25	25	3	<1	--
320.2	7	3	4	--	--	3	3	1	--	--	5	2	--	1	6	--	1	1	--	--	--	5	2	--	3	4	--	3	3	1	2	--	5	2	<1	5	--
325.1	43	26	13	4	--	3	14	8	17	6	29	8	5	--	--	--	--	--	--	12	--	21	19	3	18	25	<1	--	5	38	12	--	31	12	--	31	15
325.2	4	1	3	--	--	--	2	2	--	3	1	--	1	3	--	--	<1	--	--	--	--	4	--	--	1	3	--	--	2	2	<1	--	4	<1	--	4	4
350	15	4	11	--	--	6	8	--	--	--	9	6	--	12	3	--	--	3	--	--	--	9	6	--	4	11	--	6	8	--	3	--	12	3	--	12	1
360	26	<1	2	9	14	10	11	4	--	--	5	21	--	14	12	--	12	10	--	--	--	5	21	--	<1	12	14	10	11	4	20	2	4	21	1	4	1
430	18	3	5	9	1	2	9	7	--	--	--	18	--	3	15	--	--	16	--	--	--	--	18	--	3	14	1	2	9	7	16	--	2	16	--	2	--

Table 3.12-12 Region II Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)[1]				Moderate Sensitivity Viewers (miles)[1]				Scenic Quality (miles)[2]			BLM VRI Classifications (miles)[3]			BLM VRM Classifications (miles)[4]			USFS SIO/VQO Classifications (miles)[5]			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)[8]						Utility Corridor or Utility Window[9]
																						Landscape Scenery[6]			High Sensitivity Viewers[7]			Moderate Sensitivity Viewers[7]			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Alternative II-F																																					
Alternative II-F Total	**267**	**74**	**128**	**31**	**34**	**88**	**104**	**33**	**42**	**45**	**102**	**120**	**66**	**23**	**138**	**2**	**39**	**83**	**4**	**14**	**--**	**128**	**69**	**70**	**71**	**123**	**73**	**61**	**105**	**101**	**130**	**12**	**125**	**133**	**8**	**126**	**93**
210	26	2	23	1	--	8	18	--	--	--	--	26	--	--	26	--	19	--	--	--	--	--	15	11	2	13	11	2	18	5	19	--	6	19	--	6	10
214	10	--	5	5	--	--	1	3	6	--	9	1	--	--	10	--	6	1	--	--	--	9	1	--	--	10	--	--	1	9	6	--	4	6	--	4	7
215	8	1	3	3	2	1	2	3	2	--	1	7	--	--	8	--	--	8	--	--	--	--	--	8	--	1	7	--	1	7	8	--	--	8	--	--	8
217.01	78	15	23	13	28	19	21	14	25	11	29	38	22	9	42	2	6	55	--	--	--	27	15	37	15	27	37	11	15	53	57	5	16	57	5	16	51
217.052	16	13	3	--	--	12	5	--		1	12	3	8	--	--	--	--	--	<1	9	--	13	3	<1	12	5	1	11	6	--	9	<1	8	9	<1	8	7
218	12	3	8	<1	--	--	<1	3	9	12	--	--	12	--	--	--	3	--	--	--	--	12	--	--	3	9	--	--	<1	12	3	--	9	3	--	9	1
219.1	1	1	--	--	--	--	1	--	--	1	--	--	1	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1	--	--	--	1	--	--	1	<1
219.2	20	18	2	--	--	13	6	--	--	20	--	<1	14	--	--	--	--	--	--	--	--	20	<1	--	18	2	--	13	6	--	5	4	11	9	--	11	--
219.3	2	2	--	--	--	2	--	--	--	--	--	2	2	--	--	--	--	--	--	--	--	--	2	--	2	--	--	2	--	--	--	--	2	--	--	2	--
320.15	28	12	15	--	--	8	13	7	--	--	26	2	7	--	8	--	--	--	<1	3	--	26	2	--	12	15	--	8	13	7	3	<1	25	3	<1	25	--
320.2	7	3	4	--	--	3	3	1	--	--	5	2	--	1	6	--	1	1	--	--	--	5	2	--	3	4	--	3	3	1	2	--	5	2	--	5	--
350	15	4	11	--	--	6	8	--	--	--	9	6	--	12	3	--	--	3	--	--	--	9	6	--	4	11	--	6	8	--	3	--	12	3	--	12	1
370	14	<1	4	5	4	1	11	3	--	--	8	6	--	--	13	--	--	7	1	<1	--	4	6	4	--	8	7	1	5	8	7	1	6	7	1	6	5
380	13	<1	12	--	--	4	9	--	--	--	2	10	--	--	10	--	<1	<1	2	<1	--	2	10	--	<1	12	--	4	9	--	<1	2	10	<1	2	10	3
420	8	--	3	5	--	2	6	--	--	--	--	8	--	--	8	--	1	4	--	--	--	--	7	1	--	7	1	<1	8	--	5	--	3	5	--	3	--
440	9	--	9	--	--	9	--	--	--	--	--	8	--	1	4	--	--	1	--	--	--	--	--	8	--	--	9	--	9	--	1	--	8	1	--	8	--
Emma Park Variation																																					
Emma Park Variation	35	4	31	--	--	<1	19	10	6	31	2	2	33	1	--	--	5	--	--	--	--	34	1	--	4	31	--	<1	20	15	5	--	30	5	--	30	<1
217.02	16	1	15	--	--	--	1	10	6	13	1	1	16	--	--	--	2	--	--	--	--	15	1	--	1	15	--	--	1	15	2	--	14	2	--	14	--
219.4	3	2	1	--	--	--	3	--	--	1	1	--	1	1	--	--	--	--	--	--	--	3	--	--	2	1	--	--	3	--	--	--	3	--	--	3	<1
219.5	16	1	16	--	--	<1	16	--	--	16	--	<1	16	--	--	--	3	--	--	--	--	16	<1	--	1	15	--	<1	16	--	3	--	13	3	--	13	--
Emma Park Variation Comparison																																					
Emma Park Variation Comparison	32	21	10	<1	--	13	7	3	9	32	--	<1	27	--	--	--	6	3	<1	2	--	32	<1	--	21	11	--	13	7	12	8	4	20	12	--	20	1
218	12	3	8	<1	--	--	<1	3	9	12	--	--	12	--	--	--	3	--	--	--	--	12	--	--	3	9	--	--	<1	12	3	--	9	3	--	9	1
219.1	1	1	--	--	--	--	1	--	--	1	--	--	1	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1	--	--	--	1	--	--	1	<1
219.2	19	17	2	--	--	13	6	--	--	19	--	<1	14	--	--	--	3	3	<1	2	--	19	<1	--	17	2	--	13	6	--	5	4	10	9	--	10	--
Highway 191 Connector																																					
Highway 191 Connector	5	3	2	--	--	--	4	1	--	5	--	--	4	1	--	--	--	--	--	--	--	5	--	--	3	2	--	--	4	1	--	--	5	--	--	5	--
219.6	5	--	--	--	--	--	4	1	--	5	--	--	--	--	--	--	--	--	--	--	--	5	--	--	--	--	--	--	4	1	--	--	--	--	--	--	--

Table 3.12-12 Region II Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)[1]				Moderate Sensitivity Viewers (miles)[1]				Scenic Quality (miles)[2]			BLM VRI Classifications (miles)[3]			BLM VRM Classifications (miles)[4]			USFS SIO/VQO Classifications (miles)[5]			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)[8]						Utility Corridor or Utility Window[9]
																						Landscape Scenery[6]			High Sensitivity Viewers[7]			Moderate Sensitivity Viewers[7]			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
CastleDale Connector																																					
270	11	1	10	--	--	3	6	2	--	--	5	6	4	2	4	--	2	<1	--	--	--	3	1	6	1	4	6	1	4	6	2	<1	8	2	<1	8	2
Price Connector																																					
223	18	--	4	14	--	6	10	3	--	--	4	14	<1	7	12	--	4	<1	--	--	--	4	3	12	--	6	12	4	5	10	4	--	14	4	--	14	4
Lynndyl Connector																																					
400	24	3	21	--	--	7	10	7	--	--	9	15	--	18	6	--	<1	9	<1	--	--	9	15	--	3	21	--	7	10	7	9	<1	15	9	<1	15	1
IPP East Connector																																					
390	3	--	2	1	--	--	2	1	--	--	--	3	--	<1	2	--	2	1	--	--	--	--	3	--	--	3	--	--	2	1	3	--	--	3	--	--	--

1 High Sensitivity and Moderate Sensitivity Viewers' analysis and mapping for the Project encompass public and private viewers' concern for landscape scenery (**Appendix I, Tables I-3** and **I-4**; **Appendix I**, **Figure I-4**). The distance and visibility factors are based on the characteristics of TWE facilities, divided into four zones(**Appendix I**, **Tables I-3** and **I-4**; **Appendix I**, **Figures I-4**, **I-5**, and **I-6**).

2 Scenic Quality or scenic attractiveness is rated Class A, Class B, or Class C for highest to lowest quality or attractiveness (**Appendix I**, **Table I-1**; **Appendix I**, **Figures I-2** and **I-3**).

3 BLM VRI classifications represent this relative value of visual resources and provide the basis for considering visual values in the resource management planning process. VRI Class II, III, and IV (high to low) are determined based on the combination of scenic quality, sensitivity levels, and distance zones. VRI Class I is assigned to special management areas (**Appendix I**, **Table I-5**; **Appendix I**, **Figure I-7**).

4 BLM VRM classifications result from the RMP land use planning process for all BLM-administered lands (**Table 3.12-1**) (**Appendix I**, **Table I-7**; **Appendix I**, **Figure I-8**).

5 USFS SIO or VQO Classifications result from the national forest planning process for all USFS-administered lands (**Table 3.12-2**) (**Appendix I, Table I-7**; **Appendix I**, **Figure I-8**).

6 Residual Impacts for Landscape Scenery (**Table 3.12-7**) involves the comparison of contrasts after mitigation with the scenic quality inventory of the affected environment (**Table 3.12-4**).

7 Residual Impacts for High Sensitivity and Moderate Sensitivity Viewers (**Table 3.12-5**) involves comparison of contrasts after mitigation with distance zones (**Table 3.12-6**) and viewers' concern levels (**Table 3.12-5**).

8 BLM VRM, USFS SIO, or USFS VQO Compliance or Consistency (**Table 3.12-8**) involves comparisons of agency management objectives with contrast ratings from 309 KOPs (**KOP Figures in Appendix I**).

9 Calculations associated with Utility Corridors and Utility Windows involve the intersection of the Project reference line with the areas/polygons of the corridors or windows. These corridors or windows take precedence over the compliance and consistency determinations and as such negate the need for updates of the land use plans.

Note: Discrepancies in totals due to rounding. Segment numbers depicted in **Figure 2-22**.

Table 3.12-13 Region II Scenic Quality Class Changes by Alternative and Segment

Alternative/Segment	Total Miles	Class A to B	Class B to C	No Change
Alternative II-B				
210	26	--	--	26
211	8	--	--	8
212	13	--	--	13
213	13	--	--	13
320.05	24	--	--	24
320.1	74	--	--	74
320.15	28	--	--	28
320.2	7	--	--	7
340	20	--	--	20
360	26	--	--	26
430	18	--	--	18
Alternative II-B				
220.1	181	--	29	152
222.05	41	--	8	33
222.3	15	--	--	15
310	49	--	--	49
350	15	--	--	15
370	14	--	--	14
380	13	--	--	13
420	8	--	--	8
440	8	--	--	8
Alternative II-C				
220.1	181	--	29	152
225.2	38	--	2	36
330.1	99	--	--	99
410	37	--	--	37
440	8	--	--	8
Alternative II-D				
210	26	--	--	26
214	10	--	--	10
215	8	--	--	8
217.01	79	11	<1	67
217.02	16	13	--	3
217.1	21	--	1	20
217.15	36	--	--	36

Table 3.12-13 Region II Scenic Quality Class Changes by Alternative and Segment

Alternative/Segment	Total Miles	Class A to B	Class B to C	No Change
320.2	7	--	--	7
350	15	--	--	15
360	26	--	--	26
430	18	--	--	18
Alternative II-E				
210	26	--	--	26
213	13	--	--	13
214	10	--	--	10
215	8	--	--	8
217.05	7	--	--	7
215.051	21	--	--	21
217.052	16	--	--	16
320.05	24	--	--	24
320.15	28	--	--	28
320.2	7	--	--	7
325.1	43	5	--	38
325.2	4	3	--	1
350	15	--	--	15
360	26	--	--	26
430	18	--	--	18
Alternative II-F				
210	26	--	--	26
214	10	--	--	10
215	8	--	--	8
217.01	79	11	<1	67
217.052	17	1	--	16
218	12	12	--	--
219.1	1	1	--	--
219.2	20	20	--	<1
219.3	2	--	--	2
320.15	28	--	--	28
320.2	7	--	--	7
350	15	--	--	15
370	14	--	--	14
380	13	--	--	13
420	8	--	--	8

Table 3.12-13 Region II Scenic Quality Class Changes by Alternative and Segment

Alternative/Segment	Total Miles	Class A to B	Class B to C	No Change
440	8	--	--	8
Emma Park Variation				
217.02	16	13	--	3
219.4	2	1	--	1
219.5	17	17	--	<1
Emma Park Variation Comparison				
218	12	12	--	--
219.1	1	1	--	--
219.2	20	20	--	<1
Highway 191 Connector				
219.6	5	--	--	5
Castle Dale Connector				
270	11	--	--	11
Price Connector				
223	18	--	1	17
Lynndyl Connector				
400	24	--	<1	24
IPP East Connector				
390	3	--	--	3

Segment numbers depicted in **Figure 2-22**.

Table 3.12-14 Region II Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
II-A	210	Blue Mountain Ave, Box Elder Creek, Box Elder Reservoir, Box Elder Reservoir Number 2, CR 1, CR 134, CR 61, CR 95c, CR 96, CR 98, Dinosaur Diamond Prehistoric Byway, East Twin Wash, Miller Creek, Skull Creek, Spencer Draw, SR 64, West Twin Wash, Willow Creek 0 Residences
II-A	211	4wd Rd, Old Bonanza Hwy, Snake John Reef Cutoff Rd 0 Residences
II-A	212	Redwash Hwy, SR 45 0 Residences
II-A	213	Baeser Rd, Brennan Btm Rd, SR 88, Stirrup Rd, Wyasket Bottom Rd 0 Residences
II-A	320.05	1000w Rd, 1780w Rd, 2000 Rd, 2200 Rd, 2250 Rd, 2500 Rd, 2750 Rd, 3000s Rd, 3000w Rd, 3390 Rd, 3390s Rd, 3760s Rd, 4000s Rd, 4000w Rd, 4235s Rd, 4wd Rd, 5000 Rd, 6000w Rd, Cobble Hollow, Fort Duchesne Rd, Gusher Randlett Rd, Hilltop Rd, N 2100 Rd, S 1100 Rd, S 7000 Rd, S State St, US 40 150 Residences

Table 3.12-14 Region II Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
II-A	320.1	13000 Rd, 3450s Rd, 36730 Rd, 418008 Uinta National Forest Roadless Area, 418015 Uinta National Forest Roadless Area, 418016 Uinta National Forest Roadless Area, 45000w Rd, 46000w Rd, 4wd Rd, 5000s Rd, Aspen Cove Campground, Burgess Blvd, Center St, Coke Rd, Coleman Dr, Colman Rd, Currant Creek Wildlife Management Area, Currant Creek WMA, Current Creek Rd, Deep Creek, Deep Creek Canyon, Double R Ranch, Forest Rd, Granite Blvd, Knoll Hollow, Little Baldy Mountain, Northwest Manti WMA, Rabbit Gulch Wildlife Management Area, Rays Valley Rd, Rd A, Sand Wash/Sink Draw, Sheep Creek Rd, Sink Draw, SR 208, SR 35, SR 87, Starvation State Park, Strawberry River Day Use Area, Strawberry River Day Use Area, Strawberry River WMA, Tabby Mountain WMA, Tank Hollow, US 40, US 6, Utahan Rd, White River/Strawberry Rd Scenic Backway, Wildcat Wildlife Management Area, Willow Creek 116 Residences
II-A	320.15	418028 Uinta National Forest Roadless Area, Cedar Knoll Manti-La Sal Roadless Area, Coal Hollow Manti-La Sal Roadless Area, Dispersed Camping Access Route, Dry Creek, Dry Hollow, Lake Fork & Dairy Fork Camping, Left Fork Spencer Canyon, North Nebo WMA, Northwest Manti WMA, Right Fork Spencer Canyon, Spencer Fork Wildlife Management Area, Spencer Fork--Lasson, Unnamed Campsite, US 89 15 Residences
II-A	320.2	Big Mountain Campground, Big Mountain Campground, Bradley Canyon, Hop Creek, Mud Spring Hollow, Nebo Loop Rd, Nebo Loop Scenic Byway, Water Hollow 0 Residences
II-A	340	1450 North St Rd, 740 North St, Andrews Spring Canyon, Canyon Hills Golf Course, Cazier Canyon, Cr Rd, E 1250 Rd, E 1450 Rd, E 700 Rd, E 770 Rd, Exit 228, Footes Canyon, Frontage Rd, Gardner Creek, Government Canyon, I-15, N 550 Rd, N 600 Rd, N 650 Rd, N 800 Rd, N 900 Rd, Nephi WMA, Quaking Asp Canyon, Ramp, Red Canyon, Salt Creek, Salt Spring Canyon, South Nebo WMA, SR 132, SR 41, SR 91, Sugarloaf, West Creek 99 Residences
II-A	360	Jericho Callao Rd, Little Sahara Recreation Area, RT 1812, SR 132, Tanner Creek, US 6 0 Residences
II-A	430	Desert Mountain Rd, N 6000 West St, SR 174 0 Residences
II-B	220.1	1 8/10 Rd, 2 8/10 Rd, 4th Rd, 4wd Rd, 5/10 Rd, 60th Rd, Atchee Ridge Rd, Badger Wash ACEC, Bitter Creek, Blaze Canyon, Bobcat Reservoir, Bryson Wash, Buttermilk Canyon, Cactus Reservoir, Coal Rd, CR 100, CR 104, CR 107, CR 108, CR 109, CR 112, CR 113, CR 114, CR 138, CR 201, CR 23, CR 25, CR 268, CR 65, CR 73, CR 78, Cr Rd, Crystal Geyser Overlook, Demaree Wildlife Study Area, Desolation Canyon WCR, Displacement Point, Exit 212, Exit 220, Flint Trl, Floy Wash Rd, Frontage Rd, Gillam Draw, Green River Overlook, I-70, Iron Wash Kiosk Site, Labyrinth Canyon SRMA, Labyrinth Rims/Gemini Bridges SRMA, Little Gillam Draw, Little Valley Rd, Lost Spring Wash, McInnis Canyons NCA, Mitchell Rd, Oil Spring Mountain ACEC, Oil Spring Mountain Wildlife Study Area, Old Hwy, Old Hwy Hanksville, Old Railroad Rd, Old Spanish Historic Trail, Park Canyon, Prairie Canyon, Railroad Rd, Ramp, Red Wash, San Arroyo Wash, Scullion Gulch, Sego Canyon Rd, Shale Dr, Side Canyon, South Canyon, Spring Canyon, Spring Creek, SR 128, SR 139, SR 64, SR 94, Thompson Canyon, US 6, Utah Rims SRMA, Villaroad Flats Reservoir, VRM Class 2 Scenic Corridor, Wagon Canyon, West Canyon, White River Riparian ACEC, Windy Mesa Rd 33 Residences
II-B	222.05	Cleveland Rd, Drop Wash, Farnham Rd, Marsh Flat Wash, Mathis Wash, Midway Reservoir, Mounds Rd, Mounds Reservoir, Mud Spring Rd, Never Sweat Wash WCR, Noviatt Ln, Price River WCR, SR 10, Upper Miller Creek Rd, Well Rd 2 Residences
II-B	222.3	Brockbank Hollow, Burma Rd, SR 122, SR 31, The Energy Loop: Huntington/Eccles Canyo, W 400 Rd 0 Residences

Table 3.12-14 Region II Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
II-B	310	200 Rd, Arapeen OHV Area, Arapeen OHV Area, Arapeen OHV Area, Bear Mountain, Big Hollow Rd, Black Knob, Blue Slide Fork, Booths Canyon, Boulger - Black Canyon Manti-La Sal Rdl, Coal Fork, Cottonwood Camping, Cottonwood Creek Rd, Cottonwood Rd, Cove Creek Rd, Devils Peak, Dispersed Camping Access Route, Dublin Wash, East Mountain Manti-La Sal Roadless Area, Elk Canyon, Flat Canyon, Indian Creek Campground, Indian Creek GuaRd Station, Indian Creek Rd, Little North Creek, "Lower Millers Flat & Lowry Camping," Marinus Canyon, Meetinghouse Canyon, Miller Flat Rd, Moroni or Morris Cook, Mountainville Hwy, Mountainville Rd, Mule Creek, N 570 Rd, North Canyon, North Creek, North Fork Pleasant Creek, North Nebo WMA, Parley Ln, Pollys Peak, Potters Canyon, Potters Canyon Rd, "Potters Pond Campground", Rocky Ridge, Round Hills, Sanpitch Manti-La Sal Roadless Area, Skyline Dr, Skyline Drive Scenic Backway, Straight Fork, Unnamed Campsite, US 89, W 1780 Rd, Whetstone Creek 24 Residences
II-B	350	4wd Rd, Airport Rd, Broad Canyon, I-15, Old Pinery Canyon, Ramp, Sheep Dr, Sheep Ln, Spring Canyon, SR 28, Triangle Ranch Wildlife Management Area 1 Residence
II-B	370	Little Sage Valley, West Fork Reservoir 0 Residences
II-B	380	E 600 Rd, Railroad Ave, S 150 Rd, S Main St, SR 125, Taylors Flat Rd, W 400 Rd, W 600 Rd 0 Residences
II-B	440	Jones Rd, N 4000 Rd, N 8000 West St, W 8500 North St 0 Residences
II-C	220.1	1 8/10 Rd, 2 8/10 Rd, 4th Rd, 4wd Rd, 5/10 Rd, 60th Rd, Atchee Ridge Rd, Badger Wash ACEC, Bitter Creek, Blaze Canyon, Bobcat Reservoir, Bryson Wash, Buttermilk Canyon, Cactus Reservoir, Coal Rd, CR 100, CR 104, CR 107, CR 108, CR 109, CR 112, CR 113, CR 114, CR 138, CR 201, CR 23, CR 25, CR 268, CR 65, CR 73, CR 78, Cr Rd, Crystal Geyser Overlook, Demaree Wildlife Study Area, Desolation Canyon WCR, Displacement Point, Exit 212, Exit 220, Flint Trl, Floy Wash Rd, Frontage Rd, Gillam Draw, Green River Overlook, I-70, Iron Wash Kiosk Site, Labyrinth Canyon SRMA, Labyrinth Rims/Gemini Bridges SRMA, Little Gillam Draw, Little Valley Rd, Lost Spring Wash, McInnis Canyons NCA, Mitchell Rd, Oil Spring Mountain ACEC, Oil Spring Mountain Wildlife Study Area, Old Hwy, Old Hwy Hanksville, Old Railroad Rd, Old Spanish Historic Trail, Park Canyon, Prairie Canyon, Railroad Rd, Ramp, Red Wash, San Arroyo Wash, Scullion Gulch, Sego Canyon Rd, Shale Dr, Side Canyon, South Canyon, Spring Canyon, Spring Creek, SR 128, SR 139, SR 64, SR 94, Thompson Canyon, US 6, Utah Rims SRMA, Villaroad Flats Reservoir, VRM Class 2 Scenic Corridor, Wagon Canyon, West Canyon, White River Riparian ACEC, Windy Mesa Rd 33 Residences
II-C	225.2	Chimney Rock Flat, Dry Mesa, Job Corps Pond, Lost Spring Wash WCR, Lynns Pond, Old Spanish Historic Trail, Red Seep Wash, Saleratus Reservoir, San Rafael Canyon ACEC, Smith Pond, Summerville Point 0 Residences
II-C	330.1	3550 Rd, 4wd Rd, Aspen Hollow, Bar J Ranch, Browns Hole, Castle Valley Outdooors, Catamount Canyon, CR 801, CR 803, CR 805, CR 903, CR 906, CR 909, CR 912, CR 913, CR 916, Creepy Spring Rd, Crooked Canyon, Cutler Canyon, Dutch Flat Reservoir, Dutchmans Wash, E 11000 North St, E 1600 North St, E 2600 North St, E 300 Rd, E 3300 North St, E 3700 North St, E 400 Rd, E 4000 North St, E 5400 North St, F S 290, FS Rd, FS 037, FS 038, FS 047, FS 048, Goosberry Rd, Gooseberry/Fremont Rd Scenic Backway, I-70, Johnson Mountain Ranch, Klondike Canyon, Link Canyon Wash, Long Knoll, Lost Creek Rd, Molen Cutoff, Molen Seep Wash, N 8800 East St, N 9200 East St, N 9400 East St, Noon Rock Canyon, North Pavant Lake, Old Spanish Historic Trail, Old Woman Plateau, Paradise Ln, Pharo Canyon, Pharo Creek, Ranch Rd, Raspberry Canyon, Rock Art ACEC, Rocky Ford Canal Rd, Round Valley, Round Valley, S 100 Rd, S 200 Rd, S 300 Rd, S Old Hwy 89, Saddlehorse Canyon, Sage Flat Rd, San Rafael Swell SRMA, Santa Fe Creek, Sawmill Canyon, Shearing Corral Draw, South Wash, SR 10, SR 322, Telephone Hollow, The Breaks, US 50, US 89, Water Hollow, Wedge Overlook/Buckhorn Drive Scenic Bckwy 44 Residences

Table 3.12-14 Region II Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
II-C	410	4wd Rd, Connecting Rd, DMAD Reservoir, DMAD Reservoir, E 4500 South St, East Fork Eightmile Creek, Exit 184, Frontage Rd, Graball Canyon, I-15, Long Canyon, N 400 West St, Ramp, Scipio Pioneer Trl, SR 100, SR 125, US 50, West Fork Eightmile Creek, Whisky Creek 1 Residence
II-C	440	Jones Rd, N 4000 Rd, N 8000 West St, W 8500 North St 0 Residences
II-D	210	Blue Mountain Ave, Box Elder Creek, Box Elder Reservoir, Box Elder Reservoir Number 2, CR 1, CR 134, CR 61, CR 95c, CR 96, CR 98, Dinosaur Diamond Prehistoric Byway, East Twin Wash, Miller Creek, Skull Creek, Spencer Draw, SR 64, West Twin Wash, Willow Creek 0 Residences
II-D	214	4wd Rd 0 Residences
II-D	215	Glen Bench Rd, SR 45 0 Residences
II-D	217.01	0401009 Ashley National Forest Roadless Ar, 4wd Rd, 9 Mile Canyon Rd, 9 Mile Rd, Argyle Canyon Rd, Camping Unit, Enron Middle Campsite, Enron North Campsite, Enron South Campsite, Glen Bench Rd, Lears Canyon ACEC, Lower Green River ACED, Lower Green River WSR (VFO) Wildlife Stu, Mountain Fuel Bridge, Nine Mile Canyon Scenic Backway, Nine Mile SRMA, Ninemile ACEC, Seep Ridge Rd, The Squeeze, Turkey Trl, Watson Rd, White River Raft Access 0 Residences
II-D	217.02	2 Industrial Buildings, 4wd Rd, 7 Outbuildings, Badger Canyon, Big Sulphur Canyon Rd, Butchers Rd, Camp Site, Dry Fork, Lion Canyon, Minnie Maud Creek Rd, Minnie Maud Ridge, Pasture Canyon, Pole Canyon, Sams Canyon Rd, Sky-high Pond, Wash Canyon, Whitmore Park Rd 16 Residences
II-D	217.1	1 Industrial Building, 5th Rd, 9th Rd, Arriotti Rd, Castle Gate Dr, Castle Gate Rd, Cedar Bench Rd, Deep Canyon, Dinosaur Diamond Prehistoric Byway, Dry Canyon, Dry Canyon Rd, Dump Rd, Frontage Rd, Gentile Wash, Gordon Creek WMA, Gun Club Rd, Gun Range Rd, Hardscrabble Canyon, Hardscrabble Canyon Rd, Hardscrabble Rd, Helper Dr, Jack Canyon, Ketchum Rd, Mathis Canyon, Mathis Canyon Rd, Minnie Maud Ridge, Mountain Rd, N Lincoln Rd, N Main St, N Martin Rd, Orchard St, Panther Canyon, Panther Canyon Rd, Pipeline Bench, Pit Rd, Power Plant Rd, Price Canyon, Red Diamond Rd, Rock Rd, Royal St, Royal Way, S 4th Ave, S 5th Ave, Shooters Aly Rd, Spring Canyon Cir, Spring Canyon Rd, SR 139, The Flats, Trestle Rd, Upper Fish Rd, US 191, US 6, W 100 Rd, W 1000 Rd, W 200 Rd, W 300 Rd, W 400 Rd, W 500 Rd, W 600 Rd, W 700 Rd, W 800 Rd, W 900 Rd, Waldo Rd, Whitmore Park Rd 0 Residences
II-D	217.15	Barn Canyon, Benches Rd, Blind Fork, Boarding House Canyon Rd, Boardinghouse Canyon, Boneyaroad Canyon, Broads Canyon Rd, Burnt Fork, Castle Valley Ridge Rd, Dispersed Camping Access Route, Dry Creek, Finn Canyon, Finn Canyon Rd, Hill Top Rd, Hys Fork, Lone Rock Ravine, Magazine Canyon, Maple Fork, Milburn Rd, Narrows Tunnel, North Fork Swens Canyon, North Skyline Winter Staging, Northwest Manti WMA, Oak Creek Manti-La Sal Roadless Area, Peterson Ln, S Fork Eccles Creek Rd, Skyline Dr, SR 264, SR 31, SR 96, Swens Canyon, The Elbow, Tough Springs Rd, Trail Canyon Rd, Unnamed Campsite, US 89, Wasatch Academy SUP School, White Pine Fork 0 Residences
II-D	320.2	Big Mountain Campground, Big Mountain Campground, Bradley Canyon, Hop Creek, Mud Spring Hollow, Nebo Loop Rd, Nebo Loop Scenic Byway, Water Hollow 0 Residences
II-D	350	4wd Rd, Airport Rd, Broad Canyon, I-15, Old Pinery Canyon, Ramp, Sheep Dr, Sheep Ln, Spring Canyon, SR 28, Triangle Ranch Wildlife Management Area 1 Residence
II-D	360	Jericho Callao Rd, Little Sahara Recreation Area, RT 1812, SR 132, Tanner Creek, US 6 0 Residences

Table 3.12-14 Region II Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
II-D	430	Desert Mountain Rd, N 6000 West St, SR 174 0 Residences
II-E	210	Blue Mountain Ave, Box Elder Creek, Box Elder Reservoir, Box Elder Reservoir Number 2, CR 1, CR 134, CR 61, CR 95c, CR 96, CR 98, Dinosaur Diamond Prehistoric Byway, East Twin Wash, Miller Creek, Skull Creek, Spencer Draw, SR 64, West Twin Wash, Willow Creek 0 Residences
II-E	213	Baeser Rd, Brennan Btm Rd, SR 88, Stirrup Rd, Wyasket Bottom Rd 0 Residences
II-E	214	4wd Rd 0 Residences
II-E	215	Glen Bench Rd, SR 45 0 Residences
II-E	215.05	Siddoways Reservoir 0 Residences
II-E	217.051	1 Gas Station, 3 Industrial Buildings, 5 Dispersed Camping, 5 Outbuildings, Emma Park, Horse Creek Rd, Indian Canyon Scenic Byway, Jack Canyon Rd, Kyune Creek, Quarry Rd, Scofield Canyons, Soldier Summit, Spring Canyon, SR 96, Tabbyune Canyon, Tabbyune Creek, US 191, US 6, White River, Woods Canyon 8 Residences
II-E	217.052	19 Dispersed Camping, Center St, Cleary St, Cottonwood Canyon, Davidson Canyon, Garner Canyon, Garner Hollow, Great Western South, Heslington Canyon, Hicks Canyon, Indian Creek, Northwest Manti WMA, Oak St, Pine St, Private Picnic Site, Sheep Creek, Sheep Creek (Snowmobile), Spring Canyon, Tie Fork, Viaduct St 7 Residences
II-E	320.05	1000w Rd, 1780w Rd, 2000 Rd, 2200 Rd, 2250 Rd, 2500 Rd, 2750 Rd, 3000s Rd, 3000w Rd, 3390 Rd, 3390s Rd, 3760s Rd, 4000s Rd, 4000w Rd, 4235s Rd, 4wd Rd, 5000 Rd, 6000w Rd, Cobble Hollow, Fort Duchesne Rd, Gusher Randlett Rd, Hilltop Rd, N 2100 Rd, S 1100 Rd, S 7000 Rd, S State St, US 40 150 Residences
II-E	320.15	418028 Uinta National Forest Roadless Area, Cedar Knoll Manti-La Sal Roadless Area, Coal Hollow Manti-La Sal Roadless Area, Dispersed Camping Access Route, Dry Creek, Dry Hollow, Lake Fork & Dairy Fork Camping, Left Fork Spencer Canyon, North Nebo WMA, Northwest Manti WMA, Right Fork Spencer Canyon, Spencer Fork Wildlife Management Area, Spencer Fork--Lasson, Unnamed Campsite, US 89 15 Residences
II-E	320.2	Big Mountain Campground, Big Mountain Campground, Bradley Canyon, Hop Creek, Mud Spring Hollow, Nebo Loop Rd, Nebo Loop Scenic Byway, Water Hollow 0 Residences
II-E	325.1	0401010 Ashley National Forest Roadless Ar, 0401011 Ashley National Forest Roadless Area, 10000w Rd, 101060w Rd, 11000w Rd, 11490w Rd, 4 Outbuildings, 4000 Rd, 4725 Rd, 4725s Rd, 4730s Rd, 6000 Rd, 6000s Rd, 6450s Rd, 7 Dispersed Camping, 8000 Rd, 9000 Rd, 9000s Rd, 9000w Rd, 9500w Rd, Antelope Canyon Rd, Antelope Creek, Broad Hollow, Clem Hollow, Corral Hollow, Deathtrap Canyon, E River Rd, Indian Canyon WMA, Jolie Hollow, Lance Canyon, Mine Hollow, North Lost Hollow, North Twin Hollow, Quitchampau Canyon, Rd Hollow, South Lost Hollow, South Twin Hollow, Sowers Canyon Rd, Spring Hollow, SR 87, Tabby Canyon, Trail Hollow, Trapper Canyon, US 40, Walkway, Wire Fence Canyon, Y Canyon 63 Residences
II-E	325.2	3 Dispersed Camping, Timberlane Camp, Timberlane Camp Rd 1 Residence
II-E	350	4wd Rd, Airport Rd, Broad Canyon, I-15, Old Pinery Canyon, Ramp, Sheep Dr, Sheep Ln, Spring Canyon, SR 28, Triangle Ranch Wildlife Management Area 1 Residence

Table 3.12-14 Region II Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
II-E	360	Jericho Callao Rd, Little Sahara Recreation Area, RT 1812, SR 132, Tanner Creek, US 6 0 Residences
II-E	430	Desert Mountain Rd, N 6000 West St, SR 174 0 Residences
II-F	210	Blue Mountain Ave, Box Elder Creek, Box Elder Reservoir, Box Elder Reservoir Number 2, CR 1, CR 134, CR 61, CR 95c, CR 96, CR 98, Dinosaur Diamond Prehistoric Byway, East Twin Wash, Miller Creek, Skull Creek, Spencer Draw, SR 64, West Twin Wash, Willow Creek 0 Residences
II-F	214	4wd Rd 0 Residences
II-F	215	Glen Bench Rd, SR 45 0 Residences
II-F	217.01	0401009 Ashley National Forest Roadless Area, 4wd Rd, 9 Mile Canyon Rd, 9 Mile Rd, Argyle Canyon Rd, Camping Unit, Enron Middle Campsite, Enron North Campsite, Enron South Campsite, Glen Bench Rd, Lears Canyon ACEC, Lower Green River ACED, Lower Green River WSR (VFO) Wildlife Stu, Mountain Fuel Bridge, Nine Mile Canyon Scenic Backway, Nine Mile SRMA, Ninemile ACEC, Seep Ridge Rd, The Squeeze, Turkey Trl, Watson Rd, White River Raft Access 0 Residences
II-F	217.052	19 Dispersed Camping, Center St, Cleary St, Cottonwood Canyon, Davidson Canyon, Garner Canyon, Garner Hollow, Great Western South, Heslington Canyon, Hicks Canyon, Indian Creek, Northwest Manti WMA, Oak St, Pine St, Private Picnic Site, Sheep Creek, Sheep Creek (Snowmobile), Spring Canyon, Tie Fork, Viaduct St 7 Residences
II-F	218	2 Outbuildings, 4 Dispersed Camping, Argyle Ridge 14 Residences
II-F	219.2	0401012 Ashley National Forest Roadless Area, 0401013 Ashley National Forest Roadless Area, 2 Outbuildings, 26 Dispersed Camping, 418019 Uinta National Forest Roadless Area, 4wd Rd, Amphitheatre, Argyle Canyon Rd, Avintaquin Family Campground, Cat Peak, Dock, Horse Rd, Indian Head, Res Ridge Rd, Reservation Ridge, Reservation Ridge Scenic Backway 49 Residences
II-F	219.3	1 Utility Structure, 1 Gas Station, East St, Left Fork White River, Right Fork White River, Soldier Summit (Snowmobile), Timber Canyon Rd 4 Residences
II-F	320.15	418028 Uinta National Forest Roadless Area, Cedar Knoll Manti-La Sal Roadless Area, Coal Hollow Manti-La Sal Roadless Area, Dispersed Camping Access Route, Dry Creek, Dry Hollow, Lake Fork & Dairy Fork Camping, Left Fork Spencer Canyon, North Nebo WMA, Northwest Manti WMA, Right Fork Spencer Canyon, Spencer Fork Wildlife Management Area, Spencer Fork--Lasson, Unnamed Campsite, US 89 15 Residences
II-F	320.2	Big Mountain Campground, Big Mountain Campground, Bradley Canyon, Hop Creek, Mud Spring Hollow, Nebo Loop Rd, Nebo Loop Scenic Byway, Water Hollow 0 Residences
II-F	350	4wd Rd, Airport Rd, Broad Canyon, I-15, Old Pinery Canyon, Ramp, Sheep Dr, Sheep Ln, Spring Canyon, SR 28, Triangle Ranch Wildlife Management Area 1 Residence
II-F	370	Little Sage Valley, West Fork Reservoir 0 Residences
II-F	380	E 600 Rd, Railroad Ave, S 150 Rd, S Main St, SR 125, Taylors Flat Rd, W 400 Rd, W 600 Rd
II-F	440	Jones Rd, N 4000 Rd, N 8000 West St, W 8500 North St 0 Residences

Table 3.12-14 Region II Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
Emma Park Alternative Variation	217.02	2 Industrial Buildings, 4wd Rd, 7 Outbuildings, Badger Canyon, Big Sulphur Canyon Rd, Butchers Rd, Camp Site, Dry Fork, Lion Canyon, Minnie Maud Creek Rd, Minnie Maud Ridge, Pasture Canyon, Pole Canyon, Sams Canyon Rd, Sky-high Pond, Wash Canyon, Whitmore Park Rd 16 Residences
Emma Park Alternative Variation	219.4	West Fork Willow Creek 0 Residences
Emma Park Alternative Variation	219.5	2 Dispersed Camping, Anderson Hollow, Logge Canyon, Right Fork Kyune Creek 0 Residences
Emma Park Alternative Variation Comparison	218	2 Outbuildings, 4 Dispersed Camping, Argyle Ridge 14 Residences
Emma Park Alternative Variation Comparison	219.2	0401012 Ashley National Forest Roadless Ar, 0401013 Ashley National Forest Roadless Area, 2 Outbuildings, 26 Dispersed Camping, 418019 Uinta National Forest Roadless Area, 4wd Rd, Amphitheatre, Argyle Canyon Rd, Avintaquin Family Campground, Cat Peak, Dock, Horse Rd, Indian Head, Res Ridge Rd, Reservation Ridge, Reservation Ridge Scenic Backway 49 Residences
Highway 191 Alternative Connector	219.6	Jones Hollow 0 Residences
Castle Dale Alternative Connector	270	4wd Rd, Lawrence County Rd, SR 10 0 Residences
Price Alternative Connector	223	Benches Rd, Bob Wright Canyon, Hiawatha, Horse Bench, Long Bench Rd, Mine Property Line, Mud Water Canyon, N Spring Canyon Rd, N Spring Rd, Telephone Bench Rd, The Knoll, Wattis Hwy, Wattis Rd, Wiregrass Bench Rd 0 Residences
Lynndyl Alternative Connector	400	4wd Rd, Frontage Rd, Hard Scrabble Canyon Rd, I-15, Leamington Pass Rd, Little Oak Creek Rd, Middle Canyon, Murrays Canyon, Oak Creek Canyon Rd, Spring Canyon 0 Residences

Segment numbers depicted in **Figure 2-22**.

Vegetation Treatments

Scenarios for vegetation treatments are listed in the PDTR (**Appendix D**). Clearing of plants above 4 feet in height would occur in the 250-foot-wide ROW unless otherwise specified in the PDTR. Only the 90-foot-wide “wire zone” and 250-foot-square structure construction area would be cleared in corridors classified as VRM Class II, SIO High, and VQO Retention. Key factors in the determination of impacts to the visual resource include viewing distances, presence or absence of tree cover, and steepness of topographic slopes. Application of **VR-1** would preserve pinyon-juniper trees, except for those impeding tower and access road construction. The edges between clearings and forest would be feathered in all species. The presence of moderate to steep slopes increases visibility of vegetation treatments for ROWs and for access roads, as compared to flat slopes. These factors are included in the analysis of impacts to scenery and to sensitive viewers. Reclamation recovery time analyses, specific to views from the 309 KOPs and involving topographic slope, topographic aspect and vegetation type, are shown in **Appendix I**, **Table I-10**. The results are central components in **Table 3.12-14**.

The geographic context, distances, and spatial relationship between visual resources and the Project reference lines by segment and milepost for Region II are portrayed by tables and maps of scenic quality classes (**Appendix I**, **Table I-1** and **Figure I-2**), sensitivity levels (**Appendix I**, **Table I-2** and **Figure I-4**), visual resource inventory classes (**Appendix I**, **Table I-5** and **Figure I-7**), and visual resource management classes (**Appendix I**, **Table I-6** and **Figure I-8**). All BLM VRI distance zones were inventoried as foreground-middleground for the Project study area and are therefore not shown with map figures. Project-specific distance zones are included in the analyses for impacts to landscape scenery,

sensitive viewers, and compliance or consistency with BLM or USFS management objectives, respectively.

There were 176 KOPs selected, photographed, and analyzed in Region II. The KOP figures in **Appendix I** portray the location information for each KOP, photograph of the existing condition for each KOP, estimated structure locations, Google Earth 3D locations and heights of Project structures, associated visual contrast rating form analysis, compliance with agency management objectives, and recommended mitigation. Twenty-three photographic simulations of the Project in Region II, for those KOP locations where agency management objectives would not be met, are shown in the tables in **Appendix I** and shown in a photographic figure following each applicable KOP in the KOP figures **Appendix I**.

Alternative II-A (Applicant Proposed)

Alternative II-A would cross 257 miles of landscapes in the Uinta Basin Section of the Colorado Plateaus Province (Section 3.12.5.2), Northern Canyonlands Section of the Colorado Plateaus Province (Section 3.12.5.3), Middle Rocky Mountains Province (3.12.5.4), High Plateaus of Utah Section of the Colorado Plateaus Province (3.12.5.5), and Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross, along with one or more existing transmission lines (reduced contrasts), in the view from the visitor center of Dinosaur National Monument, CO State Highway 64 just south of Dinosaur, the Green River just south of The Stirrup, U.S. 40 southwest of Roosevelt and again in Deer Creek Canyon, Utah State Highway 87, Strawberry Road Scenic Backway, U.S. 6, U.S. 89, Utah State Highway 132 east of Nephi, in addition to several recreational roads and trails (**Table 3.12-14**). It would cross Utah State Highway 132 west of Nephi, U.S. 6 adjacent to Little Sahara Recreation Area, and Utah State Highway 174 in areas where the Project's guyed and, substantially more dominant, self-supported structures would stand out visually (higher contrasts) more than they would if seen with existing transmission line structures.

Recreationally important landscapes include Dinosaur National Monument, Bottle Hollow Reservoir, Starvation Reservoir, Strawberry Reservoir, Aspen Cove Campground, Strawberry River Day Use Area, and Strawberry Road Scenic Backway and camping areas, where the Project's structures would be seen with existing transmission line structures or oil and gas facilities. The Project would be visible from the Little Sahara Recreation Area and associated sand dunes areas where guyed and, substantially more dominant, self-supported structures would stand out visually more than they would if seen with existing transmission line structures. Landscape photography and project simulations are located in **Appendix I**, in the Dinosaur NM, White River, Vernal, Uinta, Salt Lake, Richfield, and Fillmore FO sections.

Alternative II-A would be visible in the immediate foreground from 380 residences. Thirty-eight percent of Alternative II-A would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Twenty-four percent of Alternative II-A would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). One percent of Alternative II-A would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view. Alternative II-A has increased impacts as compared with Alternative II-E. Alternative II-A has decreased impacts as compared with Alternative II-B, Alternative II-C, Alternative II-D, and Alternative II-F. Eleven percent of the Alternative II-A reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

The Cedar Knoll IRA Micro-siting Options could be utilized with similar results as those discussed under Alternative II-F.

Strawberry IRA Micro-siting Option 1

This option is similar to Alternative II-A, except that it would cross the Strawberry Road Scenic Backway immediate foreground viewshed nearer to the existing transmission line. Thus, it has decreased impacts as compared with Alternative II-A. Four percent of the Strawberry IRA Micro-siting Option 1 reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Strawberry IRA Micro-siting Option 2

This option is similar to Alternative II-A, except that it would cross the Strawberry Road Scenic Backway immediate foreground viewshed nearer to the existing transmission line. However, it has two additional, substantially more dominant, self-supported structures at the road crossing near Little Baldy Mountain. These features would stand out visually and have increased visual impacts. Thus, it has increased impacts as compared with Alternative II-A. Four percent of the Strawberry IRA Micro-siting Option 2 reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Strawberry IRA Micro-siting Option 3

This option is similar to Alternative II-A, except that it would cross over or under the existing transmission line in the Strawberry Road Scenic Backway immediate foreground viewshed and has at least four additional, substantially more dominant, self-supported structures at the road crossings near Little Baldy Mountain and Buffalo Canyon. These features would stand out visually and have increased visual impacts. Thus, this option has increased impacts as compared with Alternative II-A. Four percent of the Strawberry IRA Micro-siting Option 3 reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative II-B

Alternative II-B would cross 345 miles of landscapes in the Uinta Basin Section of the Colorado Plateaus Province (Section 3.12.5.2), Northern Canyonlands Section of the Colorado Plateaus Province (Section 3.12.5.3), Middle Rocky Mountains Province (Section 3.12.5.4), High Plateaus of Utah Section of the Colorado Plateaus Province (3.12.5.5), and Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross, along with one or more existing transmission lines (reduced contrasts), in the view from CO State Highway 64 east of Rangely, CO State Highway 139 south of Rangely, the Crystal Geyser Road and Green River south of the town of Green River, I-70 west of Green River, would closely parallel U.S. 6 from I-70 to near the Carbon County/Emery County line, the Upper Joe's Valley Road, Skyline Road Backway, U.S. 89, Utah State Highway 132, U.S. 6 near Lynndyl, and Utah State Highway 174, in addition to several recreational roads and trails (**Table 3.12-14**). It does not parallel existing transmission lines as it would cross the Old Spanish Trail and I-70 west of the Green River to the Colorado/Utah border, and would cross and would closely parallel the winding Baxter Pass Road from near the Garfield County/Mesa County border over Baxter Pass to the White Face Butte area where the Project's predominantly self-supported structures would be "sky-lined" for the majority of the distance. It also would cross Rangely Dragon Road, Texas Creek recreational roads and trails, Utah State Highway 10, Utah State Highway 31, and I-15 in areas where the Project's guyed and, substantially more dominant, self-supported structures would stand out visually (higher contrasts) more than they would if seen with existing transmission line structures and oil and gas structures.

Recreationally important landscapes include the Texas Creek area, Baxter Pass area, Cisco Desert area, Green River area, Cedar Mountain area, and Joe's Valley area, where guyed and, substantially more dominant, self-supported structures would stand out visually more than they would if seen with existing transmission line structures. Landscape photography and project simulations are located in **Appendix I**, in the Dinosaur NM, White River, Grand Junction, Moab, Price, Richfield, and Fillmore FO sections.

Alternative II-B would be visible in the immediate foreground from 60 residences. Twenty-eight percent of Alternative II-B would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Twelve percent of Alternative II-B would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**).

Four percent of Alternative II-B would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative II-B has decreased impacts as compared with Alternative II-C and Alternative II-F, and all the alternatives have increased impacts as compared with Alternative II-A, Alternative II-D, and Alternative II-E. Forty-one percent of the Alternative II-B reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative II-C

Alternative II-C would cross 364 miles of landscapes in the Uinta Basin Section of the Colorado Plateaus Province (Section 3.12.5.2), Northern Canyonlands Section of the Colorado Plateaus Province (Section 3.12.5.3), Middle Rocky Mountains Province (3.12.5.4), High Plateaus of Utah Section of the Colorado Plateaus Province (3.12.5.5), and Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross along with one or more existing transmission lines (reduced contrasts) in the view from CO State Highway 64 east of Rangely, CO State Highway 139 south of Rangely, the Crystal Geyser Road and Green River south of the town of Green River, I-70 west of Green River, would closely parallel U.S. 6 from I-70 to the intersection with the Green River Cutoff Road, Wedge Overlook Road, Utah State Highway 10, I-70, Gooseberry Road, U.S. 70, U.S. 50, I-15, would closely parallel U.S.50, and would cross U.S. 6. At the intersection of the Green River Cutoff Road it aligns west through complex and highly scenic surface geology where it would predominantly consist of self-supported structures that would be "sky-lined" along the roadway to the Cedar Mountain area, in addition to several local recreational roads and trails (**Table 3.12-14**). It does not parallel existing transmission lines as it would cross and would closely parallel the Rangely Dragon Road, Texas Creek recreational roads and trails, the winding Baxter Pass Road (where predominantly self-supporting structures would be required) from near the White Face Butte area over Baxter Pass to the Garfield County/Mesa County and would parallel the Old Spanish Trail and I-70 from the Colorado/Utah Border to the crossings just east of Green River. All of these locations would be subject to "sky-lining" of the Project's guyed and self-supported structures.

Recreationally important landscapes include the Texas Creek area, Baxter Pass area, Cisco Desert area, and U.S. 6 to Cedar Mountain area, Wedge Overlook area, Saleratus Benches area, Gooseberry Road area, Maple Grove Campground area, Scipio Lake area, and Canyon Mountains area, where guyed and self-supported structures would stand out visually more than they would if seen with existing transmission line structures. Landscape photography and project simulations are located in **Appendix I**, in the Dinosaur NM, White River, Grand Junction, Moab, Price, Richfield, Fishlake and Fillmore FO sections.

Alternative II-C would be visible in the immediate foreground from 78 residences. Twenty-three percent of Alternative II-C would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Less than 1 percent of Alternative II-C would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). Less than 1 percent of Alternative II-C would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but

should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is “sky-lined” and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative II-C has increased impacts as compared with Alternative II-A, Alternative II-B, Alternative II-D, and Alternative II-E. Alternative II-C has decreased impacts as compared with Alternative II-F. Thirty-nine percent of the Alternative II-C reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative II-D

Alternative II-D would cross 262 miles of landscapes in the Uinta Basin Section of the Colorado Plateaus Province (Section 3.12.5.2), Northern Canyonlands Section of the Colorado Plateaus Province (Section 3.12.5.3), Middle Rocky Mountains Province (Section 3.12.5.4), High Plateaus of Utah Section of the Colorado Plateaus Province (Section 3.12.5.5), and Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross, along with one or more existing transmission lines (reduced contrasts), in the view from the visitor center of Dinosaur National Monument, Colorado State Highway 64 just south of Dinosaur, the Chapita Wells Gas Field area, and U.S. 6. It would cross with higher contrasts the White River near the Enron Boat Takeout spot, the Uintah and Ouray Indian Reservation, the Green River, Sand Wash Road, Nine Mile Canyon Scenic Backway, Argyle Canyon Road, would closely parallel U.S. 191, Energy Loop Scenic Byway north of Clear Creek, again near Fairview Lakes, and again east of Fairview, U.S. 89 north of Fairview, Utah State Highway 132 east and west of Nephi, U.S. 6 adjacent to Little Sahara Recreation Area, and Utah State Highway 174, in addition to numerous recreational roads and trails (**Table 3.12-14**).

Recreationally important landscapes include Dinosaur National Monument, Fantasy Canyon, White River, Green River, Electric Lake, Fairview Lakes and the Little Sahara Recreation Area and associated sand dunes areas where guyed and, substantially more dominant, self-supported structures would stand out visually more than they would if seen with existing transmission line structures. Landscape photography and project simulations are located in **Appendix I**, in the Dinosaur National Monument, White River, Vernal, Manti La Sal, Richfield, and Fillmore FO sections.

Alternative II-D would be visible in the immediate foreground from 17 residences. Thirty-nine percent of Alternative II-D would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Eighteen percent of Alternative II-D would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). Three percent of Alternative II-D would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is “sky-lined” and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative II-D has increased impacts as compared with Alternative II-A and Alternative II-E due to the (Alternative II-D) crossings of Electric Lake and Fairview Lakes areas. Alternative II-D has decreased impacts as compared with Alternative II-B, Alternative II-C, and Alternative II-F. Thirty-one percent of the Alternative II-D reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative II-E

Alternative II-E would cross 266 miles of landscapes in the Uinta Basin Section of the Colorado Plateaus Province (Section 3.12.5.2), Northern Canyonlands Section of the Colorado Plateaus Province (Section 3.12.5.3), Middle Rocky Mountains Province (3.12.5.4), High Plateaus of Utah Section of the

Colorado Plateaus Province (Section 3.12.5.5), and Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross, along with one or more existing transmission lines (reduced contrasts), in the view from the visitor center of Dinosaur National Monument, CO State Highway 64 just south of Dinosaur, the Green River just south of The Stirrup, U.S. 40 southwest of Roosevelt, Sowers Canyon Road, Argyle Canyon Road, the LDS Camp Timberlane, U.S. 6 in Soldier Canyon, Utah State Highway 87, Strawberry Road Scenic Backway, U.S. 6, U.S. 89, Utah State Highway 132 east of Nephi, in addition to several recreational roads and trails (**Table 3.12-14**). It would cross Utah State Highway 132 west of Nephi, U.S. 6 adjacent to Little Sahara Recreation Area, and Utah State Highway 174 in areas where the Project's guyed and, substantially more dominant, self-supported structures would stand out visually (higher contrasts) more than they would if seen with existing transmission line structures.

Recreationally important landscapes include Dinosaur National Monument, Bottle Hollow Reservoir, Sowers Canyon, Argyle Canyon, and the LDS Camp Timberland, where the Project's structures would be seen with existing transmission line structures. The Project would be visible from the Little Sahara Recreation Area and associated sand dunes areas where guyed and self-supported structures would stand out visually more than they would if seen with existing transmission line structures. Landscape photography and project simulations are located in **Appendix I**, in the Dinosaur National Monument, White River, Vernal, Ashley, Uinta, Salt Lake, Richfield, and Fillmore FO sections.

Alternative II-E would be visible in the immediate foreground from 245 residences. Forty percent of Alternative II-E would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Twenty-five percent of Alternative II-E would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). Less than 1 percent of Alternative II-E would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative II-E has decreased impacts as compared with Alternative II-A, Alternative II-B, Alternative II-C, Alternative II-D, and Alternative II-F. Twenty-seven percent of the Alternative II-E reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

The Cedar Knoll IRA Micro-siting Options could be utilized with similar results as those discussed under Alternative II-F.

Alternative II-F (Agency Preferred)

Alternative II-F would cross 267 miles of landscapes in the Uinta Basin Section of the Colorado Plateaus Province (Section 3.12.5.2), Northern Canyonlands Section of the Colorado Plateaus Province (Section 3.12.5.3), Middle Rocky Mountains Province (Section 3.12.5.4), High Plateaus of Utah Section of the Colorado Plateaus Province (Section 3.12.5.5), and Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross, along with one or more existing transmission lines (reduced contrasts), in the view from the visitor center of Dinosaur National Monument, Colorado State Highway 64 just south of Dinosaur, the Chapita Wells Gas Field area, and U.S. 6. It would cross with higher contrasts the White River near the Enron Boat Takeout spot, the Uintah and Ouray Indian Reservation, the Green River, Sand Wash Road, Nine Mile Canyon Scenic Backway, Argyle Canyon Road, access road to the LDS Camp Timberlane, U.S. 191, (parallel and cross) the Reservation Ridge Scenic Backway, U.S. 6, Utah State Highway 132 east and west of Nephi, U.S. 6 adjacent to Little Sahara Recreation Area, and Utah State Highway 174, in addition to numerous recreational roads and trails (**Table 3.12-14**).

Recreationally important landscapes include Dinosaur National Monument, Fantasy Canyon, White River, Green River, the LDS Camp Timberlane, Reservation Ridge Scenic Backway, USFS Avintaquin Campground, and the Little Sahara Recreation Area and associated sand dunes areas where guyed and self-supported structures would stand out visually more than they would if seen with existing transmission line structures. Landscape photography and project simulations are located in **Appendix I**, in the Dinosaur National Monument, White River, Vernal, Manti La Sal, Richfield, and Fillmore FO sections.

Alternative II-F would be visible in the immediate foreground from 90 residences. Forty-eight percent of Alternative II-F would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Twenty-seven percent of Alternative II-F would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). Three percent of Alternative II-F would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is “sky-lined” and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative II-F has substantially increased impacts as compared with Alternative II-A, Alternative II-B, Alternative II-C, Alternative II-D, and Alternative II-E. The Argyle Ridge and Reservation Ridge locations cause the highest impacts to landscape scenery and to high sensitivity viewers of all Project alternatives (Region I, Region II, Region III, and Region IV). Field photography, preparation of visual contrast worksheets, and visual simulations will be completed for the Final EIS. Thirty-five percent of the Alternative II-F reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Cedar Knoll IRA Micro-siting Option 1

The Cedar Knoll IRA Micro-siting Option 1 would cross 28 miles of landscapes along the boundaries of the Middle Rocky Mountains Province (Section 3.12.5.4), Great Basin Section of the Basin and Range Province (Section 3.12.5.6), and High Plateaus of Utah Section of the Colorado Plateaus Province (Section 3.12.5.5). It would cross U.S. 89 along with an existing transmission line and would be “sky-lined” (increased impact) in that area. The community of Birdseye and historic town of Thistle would have visibility of the Project in their vicinities. The Cedar Knoll IRA Micro-siting Option 1 would be visible in the immediate foreground from zero residences.

Ninety-three percent of the Cedar Knoll IRA Micro-siting Option 1 would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Thirty-nine percent of the Cedar Knoll IRA Micro-siting Option 1 would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). Less than 1 percent of the Cedar Knoll IRA Micro-siting Option 1 would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

The Cedar Knoll IRA Micro-siting Option 1 would have impacts over its reach comparable to Alternative II-A. None of the Cedar Knoll IRA Micro-siting Option 1 reference line would be located within a utility corridor or utility window.

Cedar Knoll IRA Micro-siting Option 2

The Cedar Knoll IRA Micro-siting Option 2 would cross 28 miles of landscapes along the boundaries of the Middle Rocky Mountains Province (Section 3.12.5.4), Great Basin Section of the Basin and Range Province (Section 3.12.5.6), and High Plateaus of Utah Section of the Colorado Plateaus Province

(Section 3.12.5.5). It would cross U.S. 89 along with an existing transmission line and would be “sky-lined” (increased impact) in that area. The community of Birdseye and historic town of Thistle would have visibility of the Project in their vicinities. It would require near U.S. 89 at least five additional, substantially more dominant, self-supported structures as compared with other alternatives in this viewshed. The Cedar Knoll IRA Micro-siting Option 2 would be visible in the immediate foreground from zero residences.

Ninety-three percent of the Cedar Knoll IRA Micro-siting Option 2 would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Forty-three percent of the Cedar Knoll IRA Micro-siting Option 2 would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). Less than 1 percent of the Cedar Knoll IRA Micro-siting Option 2 would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

The Cedar Knoll IRA Micro-siting Option 2 would have increased impacts over its reach as compared with Alternative II-A and Cedar Knoll IRA Micro-siting Option 2. None of the Cedar Knoll IRA Micro-siting Option 2 reference line would be located within a utility corridor or utility window.

Alternative Variation in Region II

Emma Park Alternative Variation

The Emma Park Alternative Variation would cross 35 miles of landscapes in the Uintah Basin Section of the Colorado Plateaus Province (Section 3.12.5.2) and the High Plateaus of Utah Section of the Colorado Plateaus Province (Section 3.12.5.5). It would cross U.S. Highway 191 and three places along the access road to a camp, and would be “sky-lined” (increased impact) in those areas. The Emma Park Alternative Variation would be visible in the immediate foreground from 79 residences. Ninety-seven percent of the Emma Park Alternative Variation would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Eleven percent of the Emma Park Alternative Variation would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). All of the Emma Park Alternative Variation would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

The Emma Park Alternative Variation would have increased impacts as compared to Alternative II-E and substantially decreased impacts as compared to Alternative II-F. Field photography, preparation of visual contrast rating worksheets, and visual simulations will be completed for the Final EIS. Less than 1 percent of the Emma Park Variation reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative Connectors in Region II

Highway 191 Alternative Connector

The Highway 191 Alternative Connector would cross 5 miles of landscapes in the Uintah Basin Section of the Colorado Plateaus Province (Section 3.12.5.2) and the High Plateaus of Utah Section of the Colorado Plateaus Province (Section 3.12.5.5). It would cross U.S. and would be “sky-lined” (increased impact) in that area. The Highway 191 Alternative Connector would be visible in the immediate foreground from zero residences. One hundred percent of the Highway 191 Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Sixty percent of the Highway 191 Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations

(**Table 3.12-14**). All of the Highway 191 Alternative Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

The Highway 191 Alternative Connector would have increased impacts as compared to Alternative II-E and substantially decreased impacts as compared to Alternative II-F. Field photography, preparation of visual contrast rating worksheets, and visual simulations will be completed for the Final EIS. None of the Highway 191 Connector reference line would be located within a utility corridor or utility window.

Price Alternative Connector

The Price Connector would cross 18 miles of landscapes in the Northern Canyonlands Section of the Colorado Plateaus Province (Section 3.12.5.3) and the High Plateaus of Utah Section of the Colorado Plateaus Province (Section 3.12.5.5). It would cross the Wattis Road along with a pair of existing transmission lines and would be “sky-lined” (increased impact) in that area. It would closely parallel these steel lattice transmission lines for the majority of the route. The Price Connector would be visible in the immediate foreground from zero residences. Twenty-two percent of the Price Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). None of the Price Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). All of the Price Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

The Price Connector would have decreased impacts over its reach, but would involve the increased impacts of Alternative II-B. Twenty-two percent of the Price Connector reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Castle Dale Alternative Connector

The Castle Dale Alternative Connector would cross 11 miles of landscapes in the Northern Canyonlands Section of the Colorado Plateaus Province (Section 3.12.5.3) and the High Plateaus of Utah Section of the Colorado Plateaus Province (Section 3.12.5.5). It would cross Utah State Highway 10 in an area with existing transmission lines and would be “sky-lined” in that area. It would cross in front of Red Point, a major visual landmark in the Huntington area. The Castle Dale Alternative Connector would be visible in the immediate foreground from zero residences. Twenty-seven percent of the Castle Dale Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Nine percent of the Castle Dale Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). Less than 1 percent of the Castle Dale Alternative Connector would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

The Castle Dale Alternative Connector would have decreased impacts over its reach, but would involve the increased impacts of Alternatives II-B and II-C. Eighteen percent of the Castle Dale Connector reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Lynndyl Alternative Connector

The Lynndyl Alternative Connector would cross 24 miles of landscapes in the Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross numerous recreational roads and trails (**Table 3.12-14**) and would be “sky-lined” (increased impact) in those areas with no other transmission

lines present. The Lynndyl Alternative Connector would be visible in the immediate foreground from one residence. Thirty-eight percent of the Lynndyl Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Thirteen percent of the Lynndyl Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). All of the Lynndyl Alternative Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

The Lynndyl Alternative Connector would have increased impacts over its reach. Four percent of the Lynndyl Connector reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

IPP Alternative Connector

The IPP Alternative Connector would cross 3 miles of landscapes in the Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross no roads or trails. The IPP Alternative Connector would be visible in the immediate foreground from zero residences. None of the IPP Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). None of the IPP Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-14**). All of the IPP Alternative Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

The IPP Alternative Connector would have minimal impacts over its reach. None of the IPP East Connector reference line would be located within a utility corridor or utility window.

3.12.6.6 Region III

Impact parameters relate to the impact discussion in Section 3.12.6.3, Impacts Common to all Alternative Routes and Associated Components, and specific differences by alternative are presented below. The segment-specific table information for high and moderate sensitivity viewers distance zones, scenic quality, visual resource inventory classifications, agency management classifications, residual Impacts, compliance or consistency with BLM VRM, USFS SIO or VQO, and intersection of the Project reference line with utility corridors or utility windows are summarized in **Table 3.12-15**. Segment- and milepost-specific Region I inventory data and impact results for these topics are shown in the corresponding tables in **Appendix I**.

The KOP figures in **Appendix I** indicate the location information for each KOP, photograph of the existing condition for each KOP, estimated structure locations, Google Earth 3D locations and heights of Project structures, associated visual contrast rating form analysis, compliance with agency management objectives, and recommended mitigation.

<u>Residual Impacts</u>

The application of substantive mitigation measures would reduce visual impacts from high to moderate, or moderate to low. These reductions are applicable to viewing situations involving stationery (non-linear) viewers and to landscapes where tree cover and moderate to steep landforms contribute strongly to visual impacts. Residual impacts by Alternative and Segment are listed for landscape scenery, high viewer sensitivity and moderate viewer sensitivity in **Table 3.12-15**. Residual impacts by Region, Alternative, Segment, and mileposts (as if, “walking the line”) are listed in the corresponding tables in **Appendix I**.

Table 3.12-15 Region III Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)				Moderate Sensitivity Viewers (miles)				Scenic Quality (miles)			BLM VRI Classifications (miles)			BLM VRM Classifications (miles)			USFS SIO/VQO Classifications (miles)			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)						Utility Corridor or Utility Window[9]
																						Landscape Scenery			High Sensitivity Viewers			Moderate Sensitivity Viewers			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	III-A	III-B	III-C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Alternative III-A																																					
Alternative III-A Total	**276**	**32**	**82**	**69**	**93**	**52**	**93**	**72**	**59**	**1**	**101**	**174**	**17**	**90**	**150**	**3**	**73**	**132**	**1**	**16**	**--**	**60**	**60**	**156**	**23**	**70**	**182**	**25**	**73**	**178**	**219**	**7**	**50**	**220**	**6**	**50**	**68**
450	11	--	4	6	2	2	7	2	--	--	--	11	--	10	1	--	--	11	--	--	--	--	2	9	--	<1	11	1	3	8	11	--	<1	11	--	<1	--
470	34	1	4	5	24	1	5	11	16	--	13	21	--	3	31	--	--	31	--	--	--	13	21	--	1	9	24	1	5	27	31	--	3	31	--	3	2
480	65	2	14	28	21	21	19	25	--	--	15	50	--	9	56	--	--	53	--	--	--	1	9	56	--	6	59	8	15	42	53	--	12	53	--	12	--
500	19	--	--	2	17	1	8	7	3	--	--	19	--	--	19	--	--	12	--	--	--	--	--	19	--	--	19	--	1	18	12	--	8	12	--	8	1
500.02	18	<1	11	3	4	10	6	2	--	--	2	16	--	3	15	--	--	2	--	--	--	--	--	18	--	<1	17	--	10	8	2	--	15	2	--	15	--
500.05	10	7	3	--	--	2	3	5	--	--	8	2	--	3	5	--	--	3	--	1	--	6	<1	3	5	3	2	2	1	6	5	--	5	5	--	5	2
501.1	14	13	1	--	--	5	8	1	--	--	12	2	--	--	1	--	--	--	1	11	--	9	4	1	10	4	<1	5	6	4	8	4	1	9	3	1	13
501.15	1	1	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	1	--	--	1	--	--	--	1	1	--	--	1	--	--	1
502.05	43	3	11	9	19	1	5	6	30	--	25	18	2	22	16	--	25	12	--	2	--	9	1	33	3	7	33	1	4	38	39	--	4	39	--	4	36
530	9	--	--	3	5	--	--	--	9	--	2	6	2	5	1	2	--	6	--	--	--	--	--	9	--	--	9	--	--	9	9	--	--	9	--	--	6
550	35	2	22	12	--	6	22	6	1	--	23	12	12	18	4	1	31	2	--	--	--	21	12	3	2	31	3	6	22	7	34	--	1	34	--	1	2
560	11	3	9	--	--	1	5	5	--	--	<1	11	<1	11	--	--	11	--	--	--	--	<1	11	--	3	9	--	1	5	5	9	2	--	9	2	--	--
600	6	<1	4	1	--	--	3	2	--	--	--	6	--	6	--	--	6	--	--	--	--	--	--	6	--	<1	5	--	--	6	6	--	--	6	--	--	6
Alternative III-B																																					
Alternative III-B Total	**285**	**22**	**99**	**106**	**58**	**84**	**92**	**48**	**61**	**13**	**85**	**187**	**26**	**75**	**169**	**3**	**64**	**144**	**--**	**--**	**--**	**59**	**100**	**126**	**14**	**117**	**154**	**55**	**67**	**163**	**211**	**1**	**73**	**211**	**1**	**73**	**79**
450	11	--	4	6	2	2	7	2	--	--	--	11	--	10	1	--	--	11	--	--	--	--	2	9	--	<1	11	1	3	8	11	--	<1	11	--	<1	--
470	34	1	4	5	24	1	5	11	16	--	13	21	--	3	31	--	--	31	--	--	--	13	21	--	1	9	24	1	5	27	31	--	3	31	--	3	2
480	65	2	14	28	21	21	19	25	--	--	15	50	--	9	56	--	--	53	--	--	--	1	9	56	--	6	59	8	15	42	53	--	12	53	--	12	--
490	14	--	2	12	--	1	12	--	--	--	--	14	--	--	14	--	--	5	--	--	--	--	14	--	--	14	--	1	12	--	5	--	9	5	--	9	--
490.05	42	7	29	7	--	37	5	--	--	--	1	42	--	1	42	--	2	8	--	--	--	1	42	--	7	35	--	37	5	--	10	<1	33	10	<1	33	--

Table 3.12-15 Region III Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)				Moderate Sensitivity Viewers (miles)				Scenic Quality (miles)			BLM VRI Classifications (miles)			BLM VRM Classifications (miles)			USFS SIO/VQO Classifications (miles)			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)						Utility Corridor or Utility Window[9]
																						Landscape Scenery			High Sensitivity Viewers			Moderate Sensitivity Viewers			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	III-A	III-B	III-C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
510	57	6	23	24	4	7	11	3	36	13	32	12	13	25	19	--	27	28	--	--	--	44	12	--	6	47	4	7	11	38	55	1	1	55	1	1	26
530	9	--	--	3	5	--	--	--	9	--	2	6	2	5	1	2	--	6	--	--	--	--	--	9	--	--	9	--	--	9	9	--	--	9	--	--	6
540	40	4	14	19	2	13	21	5	1	--	22	18	11	9	5	1	22	2	--	--	--	--	--	40	--	4	36	--	13	27	25	--	14	25	--	14	34
590	7	1	6	<1	--	1	6	--	--	--	--	7	--	7	<1	--	7	--	--	--	--	--	--	7	--	1	6	--	1	6	7	--	--	7	--	--	4
600	6	<1	4	1	--	--	3	2	--	--	--	6	--	6	--	--	6	--	--	--	--	--	--	6	--	<1	5	--	--	6	6	--	--	6	--	--	6
Alternative III-C																																					
Alternative III-C Total	**308**	**51**	**106**	**83**	**68**	**109**	**81**	**72**	**46**	**11**	**96**	**201**	**28**	**66**	**209**	**--**	**92**	**146**	**--**	**--**	**--**	**82**	**111**	**115**	**42**	**131**	**135**	**89**	**64**	**155**	**229**	**8**	**71**	**229**	**8**	**71**	**42**
450	11	--	4	6	2	2	7	2	--	--	--	11	--	10	1	--	--	11	--	--	--	--	2	9	--	<1	11	1	3	8	11	--	<1	11	--	<1	--
460	32	--	--	8	24	1	5	15	10	--	6	25	--	3	28	--	--	30	--	--	--	--	--	32	--	--	32	--	1	30	30	--	2	30	--	2	12
480	65	2	14	28	21	21	19	25	--	--	15	50	--	9	56	--	--	53	--	--	--	1	9	56	--	6	59	8	15	42	53	--	12	53	--	12	--
490	14	--	2	12	--	1	12	--	--	--	--	14	--	--	14	--	--	5	--	--	--	--	14	--	--	14	--	1	12	--	5	--	9	5	--	9	--
490.05	42	7	29	7	--	37	5	--	--	--	1	42	--	1	42	--	2	8	--	--	--	1	42	--	7	35	--	37	5	--	10	<1	33	10	<1	33	--
520	125	35	51	18	21	43	23	24	35	11	70	44	28	39	54	--	79	33	--	--	--	80	44	--	35	69	21	43	23	59	104	8	13	104	8	13	27
610	19	8	7	5	--	4	9	6	--	--	4	15	--	4	14	--	12	6	--	--	--	--	--	19	--	8	12	--	4	15	18	--	2	18	--	2	13
Ox Valley East Variation																																					
Ox Valley East Variation Total	**16**	**14**	**2**	**--**	**--**	**2**	**7**	**8**	**--**	**--**	**16**	**--**	**--**	**<1**	**<1**	**--**	**--**	**--**	**15**	**1**	**--**	**16**	**--**	**--**	**14**	**2**	**--**	**2**	**7**	**8**	**1**	**15**	**<1**	**1**	**15**	**1**	**2**
503	7	5	2	--	--	2	5	1	--	--	7	--	--	--	<1	--	--	--	7	<1	--	7	--	--	5	2	--	2	5	1	<1	7	--	<1	7	<1	<1
505	9	9	--	--	--	--	2	7	--	--	9	--	--	<1	<1	--	--	--	8	1	--	9	--	--	9	--	--	--	2	7	1	8	<1	1	8	<1	1

Table 3.12-15 Region III Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)				Moderate Sensitivity Viewers (miles)				Scenic Quality (miles)			BLM VRI Classifications (miles)			BLM VRM Classifications (miles)			USFS SIO/VQO Classifications (miles)			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)						Utility Corridor or Utility Window[9]
																						Landscape Scenery			High Sensitivity Viewers			Moderate Sensitivity Viewers			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	III-A	III-B	III-C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Ox Valley East Variation Comparison																																					
Ox Valley East Variation Comparison Total	**15**	**14**	**1**	**--**	**--**	**5**	**9**	**1**	**--**	**--**	**13**	**2**	**--**	**--**	**1**	**--**	**--**	**--**	**1**	**12**	**--**	**9**	**5**	**1**	**10**	**5**	**<1**	**5**	**6**	**5**	**9**	**4**	**1**	**10**	**3**	**1**	**14**
501.1	14	13	1	--	--	5	8	1	--	--	12	2	--	--	1	--	--	--	1	11	--	9	4	1	10	4	<1	5	6	4	8	4	1	9	3	1	13
501.15	1	1	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	1	--	--	1	--	--	--	1	1	--	--	1	--	--	1
Ox Valley West Variation																																					
Ox Valley West Variation Total	**17**	**14**	**2**	**--**	**--**	**1**	**8**	**7**	**--**	**--**	**16**	**<1**	**--**	**<1**	**1**	**--**	**--**	**<1**	**15**	**1**	**--**	**16**	**<1**	**--**	**14**	**2**	**--**	**1**	**8**	**7**	**1**	**15**	**1**	**1**	**15**	**<1**	**2**
504	7	5	2	--	--	1	6	<1	--	--	7	<1	--	--	1	--	--	<1	6	<1	--	7	<1	--	5	2	--	1	6	<1	1	6	<1	1	6	0	<1
505	9	9	--	--	--	--	2	7	--	--	9	--	--	<1	<1	--	--	--	8	1	--	9	--	--	9	--	--	--	2	7	1	8	<1	1	8	<1	1
Ox Valley West Variation Comparison																																					
Ox Valley West Variation Comparison Total	**15**	**14**	**1**	**--**	**--**	**5**	**9**	**1**	**--**	**--**	**13**	**2**	**--**	**--**	**1**	**--**	**--**	**--**	**1**	**12**	**--**	**9**	**5**	**1**	**10**	**5**	**<1**	**5**	**6**	**5**	**9**	**4**	**1**	**10**	**3**	**1**	**14**
501.1	14	13	1	--	--	5	8	1	--	--	12	2	--	--	1	--	--	--	1	11	--	9	4	1	10	4	<1	5	6	4	8	4	1	9	3	1	13
501.15	1	1	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	1	--	--	1	--	--	--	1	1	--	--	1	--	--	1
Pinto Variation																																					
506	29	18	10	--	--	17	12	--	--	--	24	5	--	5	3	--	2	4	20	1	--	24	5	--	18	10	--	17	12	--	6	21	1	6	21	1	2
Pinto Variation Comparison																																					
Pinto Variation Comparison Total	**24**	**20**	**4**	**--**	**--**	**7**	**11**	**6**	**--**	**--**	**20**	**4**	**--**	**3**	**7**	**--**	**--**	**3**	**1**	**13**	**--**	**15**	**5**	**4**	**15**	**7**	**2**	**7**	**7**	**10**	**13**	**4**	**6**	**14**	**3**	**6**	**15**
500.05	10	7	3	--	--	2	3	5	--	--	8	2	--	3	5	--	--	3	--	1	--	6	<1	3	5	3	2	2	1	6	5	--	5	5	--	5	2
501.1	14	13	1	--	--	5	8	1	--	--	12	2	--	--	1	--	--	--	1	11	--	9	4	1	10	4	<1	5	6	4	8	4	1	9	3	1	13

Table 3.12-15 Region III Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)				Moderate Sensitivity Viewers (miles)				Scenic Quality (miles)			BLM VRI Classifications (miles)			BLM VRM Classifications (miles)			USFS SIO/VQO Classifications (miles)			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)						Utility Corridor or Utility Window[9]
																						Landscape Scenery			High Sensitivity Viewers			Moderate Sensitivity Viewers			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	III-A	III-B	III-C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Avon Connector																																					
495	8	--	1	3	4	8	--	--	--	--	--	8	--	--	8	--	--	3	--	--	--	--	8	--	--	4	4	8	--	--	3	--	5	3	--	5	--
Moapa Connector																																					
Moapa Connector	13	3	9	1	--	3	9	--	--	--	<1	13	<1	9	3	--	11	2	--	--	--	<1	9	3	3	7	3	3	6	3	12	1	--	12	1	--	2
570	10	3	6	1	--	3	6	--	--	--	<1	9	<1	9	<1	--	10	--	--	--	--	<1	9	--	3	7	--	3	6	--	8	1	--	8	1	--	<1
580	3	--	3	<1	--	--	3	--	--	--	--	3	--	--	3	--	1	2	--	--	--	--	--	3	--	--	3	--	--	3	3	--	--	3	--	--	1

[1] High Sensitivity and Moderate Sensitivity Viewers' analysis and mapping for the Project encompass public and private viewers' concern for landscape scenery (**Appendix I, Tables I-3** and **I-4**; **Appendix I**, **Figure I-4**). The distance and visibility factors are based on the characteristics of TWE facilities, divided into four zones(**Appendix I**, **Tables I-3** and **I-4**; **Appendix I**, **Figures I-4**, **I-5**, and **I-6**).

[2] Scenic Quality or scenic attractiveness is rated Class A, Class B, or Class C for highest to lowest quality or attractiveness (**Appendix I, Table I-1**; **Appendix I, Figures I-2** and **I-3**).

[3] BLM VRI classifications represent this relative value of visual resources and provide the basis for considering visual values in the resource management planning process. VRI Class II, III, and IV (high to low) are determined based on the combination of scenic quality, sensitivity levels, and distance zones. VRI Class I is assigned to special management areas (**Appendix I, Table I-5**; **Appendix I, Figure I-7**).

[4] BLM VRM classifications result from the RMP land use planning process for all BLM-administered lands (**Table 3.12-1**) (**Appendix I, Table I-7**; **Appendix I**, **Figure I-8**).

[5] USFS SIO or VQO Classifications result from the national forest planning process for all USFS-administered lands (**Table 3.12-2**) (**Appendix I, Table I-7**; **Appendix I**, **Figure I-8**).

[6] Residual Impacts for Landscape Scenery (**Table 3.12-7**) involves the comparison of contrasts after mitigation with the scenic quality inventory of the affected environment (**Table 3.12-4**).

[7] Residual Impacts for High Sensitivity and Moderate Sensitivity Viewers (**Table 3.12-5**) involves comparison of contrasts after mitigation with distance zones (**Table 3.12-6**) and viewers' concern levels (**Table 3.12-5**).

[8] BLM VRM, USFS SIO, or USFS VQO Compliance or Consistency (**Table 3.12-8**) involves comparisons of agency management objectives with contrast ratings from 309 KOPs (**KOP Figures** in **Appendix I**).

[9] Calculations associated with Utility Corridors and Utility Windows involve the intersection of the Project reference line with the areas/polygons of the corridors or windows. These corridors or windows take precedence over the compliance and consistency determinations and as such negate the need for updates of the land use plans.

Note: Discrepancies in totals due to rounding. Segment numbers depicted in **Figure 2-23**.

Compliance or Consistency with Agency Management Objectives

Maps showing locations where agency management objectives would be met and would not be met are shown in **Appendix I**, **Figure I-12**. Photographic simulations of the Project, for those KOP locations where agency management objectives would not be met, are shown in the KOP figures in **Appendix I** following the applicable KOP analysis sheet. Maps showing locations where applications of mitigation **VR-4** to the reference line would reduce impacts to levels compliant or consistent with agency management objectives are shown in **Appendix I**, **Figure I-13**. Maps showing locations where agency management objectives would be met with mitigation and where agency management objectives are not applicable are shown in **Appendix I**, **Figure I-14**. Mitigation **VR-4** would be applicable to, and subject to the standard routing engineering study for reference lines within a half-mile of linear KOPs, except for those reference lines crossing roads. Designated utility corridors considered in the analysis are shown in **Appendix I**, **Figure I-15**.

Scenic Quality

Existing scenic quality may be lowered by the Project, depending on the context. This is determined based on analysis of existing scenic quality rating/scores, existing landscape character, presence or absence of existing industrial development (transmission lines, pipelines, land disturbances, etc.), and the effect of introducing the Project into the landscape as either a new or additional cultural modification. Those segments where the existing scenic quality would be lowered by the Project to a lower class (Class A to Class B or Class B to Class C) are shown in **Table 3.12-16**. Segment- and milepost-specific data for change in scenic quality is shown in **Appendix I**, **Table I-12**.

Table 3.12-16 Region III Scenic Quality Class Changes by Alternative and Segment

Alternative/Segment	Total Miles	Class A to B	Class B to C	No Change
Alternative III-A				
450	11	--	--	11
470	34	--	--	34
480	65	--	--	65
500	19	--	--	19
500.02	18	--	--	18
500.05	10	--	--	10
501.1	14	--	--	14
501.15	1	--	--	1
502.05	43	1	--	42
530	9	--	--	9
550	35	--	--	35
560	11	--	--	11
600	6	--	--	6

Table 3.12-16 Region III Scenic Quality Class Changes by Alternative and Segment

Alternative/Segment	Total Miles	Class A to B	Class B to C	No Change
Alternative III-B				
450	11	--	--	11
460	34	--	--	34
480	65	--	--	65
490	14	--	--	14
490.05	43	--	1	42
510	57	--	14	43
530	9	--	--	9
540	40	--	--	40
590	7	--	--	7
600	6	--	--	6
Alternative III-C				
450	11	--	--	11
460	32	--	--	32
480	65	--	--	65
490	14	--	--	14
490.05	43	--	1	42
520	124	9	--	115
610	19	--	--	19
Ox Valley East Variation				
503	7	--	--	7
505	9	--	--	9
Ox Valley East Variation Comparison				
501.1	14	--	--	14
501.15	1	--	--	1
Ox Valley West Variation				
504	7	--	--	7
505	9	--	--	9
Ox Valley West Variation Comparison				
501.1	14	--	--	14
501.15	1	--	--	1

Table 3.12-16 Region III Scenic Quality Class Changes by Alternative and Segment

Alternative/Segment	Total Miles	Class A to B	Class B to C	No Change
Pinto Variation				
506	29	--	--	29
Pinto Variation Comparison				
500.05	10	--	--	10
501.1	14	--	--	14
Avon Connector				
495	8	--	--	8
Moapa Connector				
570	10	--	--	10
580	3	--	--	3

Segment numbers depicted in **Figure 2-23**.

Public Viewers and Visibility of the Project

Immediate foreground (0 to 0.5-mile) visibility of the Project is influential in the experiences of viewers and indicative of the level of impacts to people. The following **Table 3.12-17** indicates visibility by alternative and segment for those immediate foreground public places, designated special management areas, lakes and reservoirs, rivers, roads, scenic byways and backways, and historic trails where visual resources are important to recreational and viewer experiences. Viewing situations in these locations are both stationary and mobile.

Table 3.12-17 Region III Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
III-A	450	Smelter Knolls Reservoir 0 Residences
III-A	470	4wd Rd, Old 6 And 50, US 6 0 Residences
III-A	480	4wd Rd, Beryl Milford Rd, Cat Canyon, Cat Canyon Reservoir, Chrystal Peak Rd, Cricket Mountains ATV Area, Cricket Mountains ATV Area, Jockey Rd, Long Lick Canyon, Lower Big Wash Reservoir, Mollies Nipple, Moscow Reservoir, Moscow Wash, Red Rock Number 1 Reservoir, S 24300 West St, SR 21, The Big Wash, Twelvemile Knoll 0 Residences
III-A	500	16000 Rd, 18200 Rd, 21600 Rd, Blue Knoll, E 18200 Rd, E 20600 Rd, Iron Springs Creek, Lund Hwy, Schoppmann Rd 0 Residences
III-A	500.02	10400 Rd, 1600 Rd, 8000 Rd, Bullion Canyon, Chloride Canyon, Sand Spring Canyon, Sand Spring Rd, Urie Hollow, W Antelope Rd 0 Residences

Table 3.12-17 Region III Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
III-A	500.05	2600 Rd, 3200 Rd, 700 Rd, Bench Rd, E 300 Rd, Jefferson Hunt Monument, Old Spanish Historic Trail, SR 56, W Pinto Rd 13 Residences
III-A	501.1	Atchinson Dixie National Forest Roadless A, Big Canyon, California Hollow, Carson Cir, Cave Cir, Dodge City Trl, E Christie Ln, E Forest Dr, E Rye Dr, E Sumac Dr, Hardin Trl, Hole N Rock Cir, Launa Ln, Lodge Rd, Meadow Valley Creek, N Butch Cassidy Trl, N Cedar Dr, N Doc Holiday Ln, N Lodge Rd, N Matt Dillon Trl, N Pinion Cir, N Sundance Kid Trl, Old State Hwy 144, Orchard Dr, Pine Valley Hwy, Red Butte, Rex Layne Dr, Spring Creek, W Butch Cassidy Cir, W Frontier Rd, Younger Cir 131 Residences
III-A	501.15	Rancho Veyo Rd 0 Residences
III-A	502.05	Beaver Dam Slope ACEC, Beaver Dam Wash NCA, Biglow Ranch Rd, Burgess Wash, Grapevine Wash, Jackson Reservoir, Moody Wash Dixie National Forest Roadless, Mormon Mesa ACEC - Ely, Snow Spring Wash, Snow Spring Wash, Veyo Shoal Creek Rd 0 Residences
III-A	550	Carp Elgin Rd, Carpelgin Rd, Frontage Rd, I-15, Mormon Mesa ACEC, Muddy River Wildlife Study Area, Ramp, SR 12, Waterline Rd, Weiser Wash 0 Residences
III-A	560	Bitter Springs Backcountry Byway, Muddy Mountains SRMA, Old Spanish Historic Trail, RT 167, RT 169, SR 40 0 Residences
III-A	600	Old Spanish Historic Trail, Old Spanish Historic Trail 0 Residences
III-B	450	Smelter Knolls Reservoir 0 Residences
III-B	470	4wd Rd, Old 6 And 50, US 6 0 Residences
III-B	480	4wd Rd, Beryl Milford Rd, Cat Canyon, Cat Canyon Reservoir, Chrystal Peak Rd, Cricket Mountains ATV Area, Cricket Mountains ATV Area, Jockey Rd, Long Lick Canyon, Lower Big Wash Reservoir, Mollies Nipple, Moscow Reservoir, Moscow Wash, Red Rock Number 1 Reservoir, S 24300 West St, SR 21, The Big Wash, Twelvemile Knoll 0 Residences
III-B	490	13300 Rd, 9300 Rd, E 14900 Rd, E 18200 Rd, E 20600 Rd, E 23200 Rd, E 24000 Rd, Lund Hwy, N 10100 Rd, N 10900 Rd, N 12500 Rd 0 Residences
III-B	490.05	4wd Rd, 50 Rd, 5600 Rd, Beryl Milford Rd, Beryl Rd, Center St, Cow Trl, Deer Rd, Dick Palmer Wash, E 12000 Rd, Gold Springs Rd, Hamblin Valley Rd, Modena Reservoir, N 10000 Rd, N 10100 Rd, N 10200 Rd, N 10300 Rd, N 1600 Rd, N 3000 Rd, N 4000 Rd, N 7200 Rd, N 800 Rd, N 8000 Rd, N 8800 Rd, Sheep Spring Draw, SR 319, SR 56, Uvada Reservoir, W 6600 Rd, W Center St, Zane, Zane Rd 21 Residences

Table 3.12-17 Region III Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
III-B	510	Abe Spring, Bally Knolls, Clover Mountains Wilderness, Jumbled Mountain, Lafes Reservoir, Mud Springs, Shoemake Spring, Summit Spring, The Ribbons, Topah Spring, Tule Spring 3 Residences
III-B	540	31 Residences, Barlow Ave, Casaby Ave, Dry Gulch Trl, Embry St, Henry Dr, Livingston Number Two Spring, Meadow Valley Wash Wildlife Study Area, Moapa Recreation Center Park, N Lawson Dr, Patriots Way, Pulsipher Ave, Rest Area, S Lawson Dr, S Sandy St, SR 168, SR 78, Vivian Pl 0 Residences
III-B	590	SR 40 0 Residences
III-B	600	Old Spanish Historic Trail, Old Spanish Historic Trail 0 Residences
III-C	450	Smelter Knolls Reservoir 0 Residences
III-C	460	North Clay Knoll Reservoir, Old Channel Sevier River, Rocky Knoll, S 18000 Rd, Soap Wash, Squire Ln, W 13000 Rd, W 2500 South St, West Clay Knoll Reservoir, West Marshall Tract Reservoir 0 Residences
III-C	480	4wd Rd, Beryl Milford Rd, Cat Canyon, Cat Canyon Reservoir, Chrystal Peak Rd, Cricket Mountains ATV Area, Cricket Mountains ATV Area, Jockey Rd, Long Lick Canyon, Lower Big Wash Reservoir, Mollies Nipple, Moscow Reservoir, Moscow Wash, Red Rock Number 1 Reservoir, S 24300 West St, SR 21, The Big Wash, Twelvemile Knoll 0 Residences
III-C	490	13300 Rd, 9300 Rd, E 14900 Rd, E 18200 Rd, E 20600 Rd, E 23200 Rd, E 24000 Rd, Lund Hwy, N 10100 Rd, N 10900 Rd, N 12500 Rd 0 Residences
III-C	490.05	4wd Rd, 50 Rd, 5600 Rd, Beryl Milford Rd, Beryl Rd, Center St, Cow Trl, Deer Rd, Dick Palmer Wash, E 12000 Rd, Gold Springs Rd, Hamblin Valley Rd, Modena Reservoir, N 10000 Rd, N 10100 Rd, N 10200 Rd, N 10300 Rd, N 1600 Rd, N 3000 Rd, N 4000 Rd, N 7200 Rd, N 800 Rd, N 8000 Rd, N 8800 Rd, Sheep Spring Draw, SR 319, SR 56, Uvada Reservoir, W 6600 Rd, W Center St, Zane, Zane Rd 21 Residences
III-C	520	Access Route, Antelope Canyon Rd, Buckboard Spring, Cedar Wash, Chief Mountain SRMA, Chokecherry Spring, Cobalt Canyon, Cobalt Canyon, Coyote Springs Valley ACEC, Delamar Mountains Wilderness, Delamar Valley, Desert National Wildlife Range, Fish and Wildlife #1, Fish and Wildlife #2, Fish and Wildlife #3, Gunsight Mountain Trl, Highway 93, Kane Springs ACEC, Kane Springs Wash, Keel Spring, Lien Draw, Miller Spring, Miser Gulch, Nelson Spring, Old Hwy 93, Old State Boundary Historical Marker, Perkins Number Two Reservoir, Powerline Reservoir, Pwr Line Maintenance Rd, Rainbow Canyon Backcountry Byway, Sawmill Rd, Silver State OHV Area, Silver State OHV Area, Silver State OHV Area Access Route, Silver State OHV Trail, Southeast Reservoirs, SR 168, SR 75, Unit 3/Sheep Range, US 93, Wamp Springs Trl 4 Residences

Table 3.12-17 Region III Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
III-C	610	Apex Rd, I-15, Nellis Dunes SRMA, Old Spanish Historic Trail, Power Line Rd, Salt Lake Hwy, Service Rd, US 93 0 Residences
Ox Valley East Alternative Variation	503	Gum Hill, Gum Hill Dixie National Forest Roadless Ar, Meadow Canyon Rd, Mogotsu Dixie National Forest Roadless Are, Natl Forest Rd, Shinbone Creek, SR 18 0 Residences
Ox Valley East Alternative Variation	505	Bullrush Creek, Hardscrabble Hollow, Natl Forest Rd, Red Hardscrabble Trail, Valley Canyon 0 Residences
Ox Valley East Alternative Variation Comparison	501.1	Atchinson Dixie National Forest Roadless A, Big Canyon, California Hollow, Carson Cir, Cave Cir, Dodge City Trl, E Christie Ln, E Forest Dr, E Rye Dr, E Sumac Dr, Hardin Trl, Hole N Rock Cir, Launa Ln, Lodge Rd, Meadow Valley Creek, N Butch Cassidy Trl, N Cedar Dr, N Doc Holiday Ln, N Lodge Rd, N Matt Dillon Trl, N Pinion Cir, N Sundance Kid Trl, Old State Hwy 144, Orchard Dr, Pine Valley Hwy, Red Butte, Rex Layne Dr, Spring Creek, W Butch Cassidy Cir, W Frontier Rd, Younger Cir 131 Residences
Ox Valley East Alternative Variation Comparison	501.15	Rancho Veyo Rd 0 Residences
Ox Valley West Alternative Variation	504	Natl Forest Rd, S 1200th St 0 Residences
Ox Valley West Alternative Variation	505	Bullrush Creek, Hardscrabble Hollow, Natl Forest Rd, Red Hardscrabble Trail, Valley Canyon 0 Residences
Ox Valley West Alternative Variation Comparison	501.1	Atchinson Dixie National Forest Roadless A, Big Canyon, California Hollow, Carson Cir, Cave Cir, Dodge City Trl, E Christie Ln, E Forest Dr, E Rye Dr, E Sumac Dr, Hardin Trl, Hole N Rock Cir, Launa Ln, Lodge Rd, Meadow Valley Creek, N Butch Cassidy Trl, N Cedar Dr, N Doc Holiday Ln, N Lodge Rd, N Matt Dillon Trl, N Pinion Cir, N Sundance Kid Trl, Old State Hwy 144, Orchard Dr, Pine Valley Hwy, Red Butte, Rex Layne Dr, Spring Creek, W Butch Cassidy Cir, W Frontier Rd, Younger Cir 131 Residences
Ox Valley West Alternative Variation Comparison	501.15	Rancho Veyo Rd 0 Residences
Pinto Alternative Variation	506	Cove Hollow, Cove Mountain Dixie National Forest Rdle, Earl Canyon, Forest Rd, Grassy Flat Canyon, Kane Mountain Dixie National Forest Rdle, Kane Spring Draw, N Baker Rd, Natl Forest Rd, Newcastle Reservoir, Old State Hwy 144, Santa Clara River Fishing Access, South Fork Pinto Creek, SR 18, W Pine Valley Rd, W Pinto Rd, Wheat Grass Canyon 3 Residences
Pinto Alternative Variation Comparison	500.05	2600 Rd, 3200 Rd, 700 Rd, Bench Rd, E 300 Rd, Jefferson Hunt Monument, Old Spanish Historic Trail, SR 56, W Pinto Rd 13 Residences

Table 3.12-17 Region III Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
Pinto Alternative Variation Comparison	501.1	Atchinson Dixie National Forest Roadless A, Big Canyon, California Hollow, Carson Cir, Cave Cir, Dodge City Trl, E Christie Ln, E Forest Dr, E Rye Dr, E Sumac Dr, Hardin Trl, Hole N Rock Cir, Launa Ln, Lodge Rd, Meadow Valley Creek, N Butch Cassidy Trl, N Cedar Dr, N Doc Holiday Ln, N Lodge Rd, N Matt Dillon Trl, N Pinion Cir, N Sundance Kid Trl, Old State Hwy 144, Orchard Dr, Pine Valley Hwy, Red Butte, Rex Layne Dr, Spring Creek, W Butch Cassidy Cir, W Frontier Rd, Younger Cir 131 Residences
Avon Alternative Connector	495	15200 Rd 0 Residences
Moapa Alternative Connector	570	Old Spanish Historic Trail, SR 40 0 Residences

Segment numbers depicted in **Figure 2-23**.

Vegetation Treatments

Scenarios for vegetation treatments are listed in the PDTR (**Appendix D**). Clearing of plants above 4 feet in height would occur in the 250-foot-wide ROW unless otherwise specified in the PDTR. Only the 90-foot-wide “wire zone” and 250-foot-square structure construction area would be cleared in corridors classified as VRM Class II, SIO High, and VQO Retention. Key factors in the determination of impacts to the visual resource include viewing distances, presence or absence of tree cover, and steepness of topographic slopes. Application of **VR-1** would preserve pinyon-juniper trees, except for those impeding tower and access road construction. The edges between clearings and forest would be feathered in all species. The presence of moderate to steep slopes increases visibility of vegetation treatments for ROWs and for access roads, as compared to flat slopes. These factors are included in the analysis of impacts to scenery and to sensitive viewers. Reclamation recovery time analyses, specific to views from the 309 KOPs and involving topographic slope, topographic aspect and vegetation type, are shown in **Appendix I**, **Table I-12**. The results are central components in **Table 3.12-17**.

The geographic context, distances, and spatial relationship between visual resources and the Project reference lines by segment and milepost for Region III are portrayed by tables and maps of scenic quality classes (tables in **Appendix I** and **Figure I-2**), sensitivity levels (tables in **Appendix I** and **Figure I-4**), visual resource inventory classes (tables in **Appendix I** and **Figure I-7**), and visual resource management classes (tables in **Appendix I** and **Figure I-8**). All BLM VRI distance zones were inventoried as foreground-middleground for the Project study area and are therefore not shown with map figures. Project-specific distance zones are included in the analyses for impacts to landscape scenery, sensitive viewers, and compliance or consistency with BLM or USFS management objectives, respectively.

There were 62 KOPs selected, photographed, and analyzed in Region III. The KOP figures in **Appendix I**, portray the location information for each KOP, photograph of the existing condition for each KOP, estimated structure locations, Google Earth 3D locations and heights of Project structures, associated visual contrast rating form analysis, compliance with agency management objectives, and recommended mitigation. Sixteen photographic simulations of the Project in Region III, for those KOP locations where agency management objectives would not be met, are shown in the tables in **Appendix I** and shown in a photographic figure following each applicable KOP in the KOP figures in **Appendix I**.

Alternative III-A (Applicant Proposed)

Alternative III-A would cross 276 miles of landscapes in the Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross U.S. 50, where the Project’s guyed structures would stand out

visually more (increased impact) than they would if seen with existing transmission line structures. At the eastern edge of the Cricket Mountains' crossing, the Project would join and parallel existing transmission lines southward to the Region III, Alternative III-A terminus just north of Las Vegas. The Project would cross and or parallel numerous highways (Utah State Highways 257, 21, 56, and 18, and I-15), recreational roads, and trails (**Table 3.12-17**), and in all cases it would parallel existing transmission lines (reduced impacts).

Recreationally important landscapes include the Sevier River plain and Cricket Mountains, where the Project's guyed and, substantially more dominant, self-supported structures are sky-lined (increased impact) in the landscape. All other recreationally important landscapes have existing transmission lines in the Projects' immediate viewshed. Of particular note is the Mountain Meadows National Historic Landmark Site viewshed where the Project would be placed on the far side of three existing transmission lines and two pipeline ROWs. This results in decreased impacts to viewers and landscape scenery. Landscape photography and project simulations are located in **Appendix I**, in the Fillmore, Cedar City, St. George and Southern Nevada FO sections.

Alternative III-A would be visible in the immediate foreground from 144 residences. Twenty-two percent of Alternative III-A would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Eight percent of Alternative III-A would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-17**). Two percent of Alternative III-A would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative III-A has decreased impacts as compared with Alternative III-B, Alternative III-C, and Alternative III-D. Twenty-five percent of the Alternative III-A reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative III-B (Agency Preferred)

Alternative III-B would cross 285 miles of landscapes in the Great Basin Section of the Basin and Range Province (Section 3.12.5.6). In areas with no existing transmission lines, it would cross U.S. 50 and closely parallel and would cross Utah State Highway 56, and would cross the Rainbow Backcountry Byway in two locations. The Project would cross several recreational roads and trails (**Table 3.12-17**) and recreationally important landscapes in the Sevier River Sand Dunes, Sevier River, Cricket Mountain, Red Pass, and landscapes east, north, west, and south of Caliente, including the Matthews Canyon Reservoir area, where there are no existing transmission lines (higher impacts). Landscape photography and project simulations are located in **Appendix I**, in the Fillmore, Cedar City, Ely, and Las Vegas FO sections.

Alternative III-B would be visible in the immediate foreground from 24 residences. Twenty-one percent of Alternative III-B would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Five percent of Alternative III-B would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-17**). Less than 1 percent of Alternative III-B would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative III-B has increased impacts as compared with Alternative III-A. Alternative III-B is comparable to Alternative III-C. Twenty-eight percent of the Alternative III-B reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative III-C

Alternative III-C would cross 308 miles of landscapes in the Great Basin Section of the Basin and Range Province (Section 3.12.5.6). Adjacent to one or more existing transmission lines (reduced contrasts), it would cross U.S. 50, parallel Utah State Highway 257, would cross Utah State Highways 21 and parallel U.S. 93 in the Pahranagat and Coyote Spring Valleys. In areas with no existing transmission lines, it would closely parallel and would cross Utah State Highway 56, would cross U.S. 93 north and west of Caliente, and would cross the Silver State Trail in two locations. The Project would cross several recreational roads and trails (**Table 3.12-17**) and recreationally important landscapes east, north, and west of Caliente, where there are no existing transmission lines (higher impacts). All other recreationally important landscapes have existing transmission lines in the Projects' immediate viewshed. Landscape photography and project simulations are located in **Appendix I**, in the Fillmore, Cedar City, Ely, and Las Vegas FO sections.

Alternative III-C would be visible in the immediate foreground from 25 residences. Twenty-seven percent of Alternative III-C would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Fourteen percent of Alternative III-C would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-17**). Three percent of Alternative III-C would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads, trails, and rivers, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative III-C has increased impacts as compared with Alternative III-A. Alternative III-C is comparable to Alternative III-B. Fourteen percent of the Alternative III-C reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Avon Alternative Connector

The Avon Alternative Connector would cross 8 miles of landscape in the Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would closely parallel the Union Pacific Railroad. The Avon Alternative Connector would be visible in the immediate foreground from zero residences. None of the Avon Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**).

None of the Avon Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-17**). All of the Avon Alternative Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. The Avon Alternative Connector would have minimal impacts over its reach, and would provide connection with Alternative II-A (decreased impacts). None of the Avon Connector reference line would be located within a utility corridor or utility window.

Moapa Alternative Connector

The Moapa Alternative Connector would cross 13 miles of landscape in the Great Basin Section of the Basin and Range Province (Section 3.12.5.6). It would cross I-15 in an area with several existing steel

lattice transmission lines in the view to the west (toward Alternative III-C) and no existing transmission lines to the east (toward Alternative III-A). It would be “sky-lined” (increased impact) in the immediate foreground of I-15. The Moapa Alternative Connector would cause high impacts to moderate sensitivity I-15 viewers in this immediate foreground (0 to 0.5-mile) viewing situation (**Table 3.12-17**). Moapa Alternative Connector would cross VRM Class III landscapes, where changes may attract attention, but should not dominate the view of the casual observer.

The Moapa Alternative Connector would have increased impacts as compared to Alternative III-A or Alternative III-C, in part due to the need for heavier self-supporting transmission line structures at the points-of-intersection with the alternatives. Fifteen percent of the Moapa Connector reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

3.12.6.7 Region IV

Impact parameters relate to the impact discussion in Section 3.12.6.3, Impacts Common to all Alternative Routes and Associated Components, and specific differences by alternative are presented below. The segment-specific table information for high and moderate sensitivity viewers distance zones, scenic quality, visual resource inventory classifications, agency management classifications, residual Impacts, compliance or consistency with BLM VRM, USFS SIO or VQO, and intersection of the Project reference line with utility corridors or utility windows are summarized in **Table 3.12-18**. Segment- and milepost-specific Region I inventory data and impact results for these topics are shown in the corresponding tables in **Appendix I**.

The KOP figures in **Appendix I** indicate the location information for each KOP, photograph of the existing condition for each KOP, estimated structure locations, Google Earth 3D locations and heights of Project structures, associated visual contrast rating form analysis, compliance with agency management objectives, and recommended mitigation.

Residual Impacts

The application of substantive mitigation measures would reduce visual impacts from high to moderate, or moderate to low. These reductions are applicable to viewing situations involving stationery (non-linear) viewers and to landscapes where tree cover and moderate to steep landforms contribute strongly to visual impacts. Residual impacts by Alternative and Segment are listed for landscape scenery, high viewer sensitivity and moderate viewer sensitivity in **Table 3.12-18**. Residual impacts by Region, Alternative, Segment, and mileposts (as if, “walking the line”) are listed in the corresponding tables in **Appendix I**.

Compliance or Consistency with Agency Management Objectives

Maps showing locations where agency management objectives would be met and would not be met are shown in **Appendix I**, **Figure I-12**. Photographic simulations of the Project, for those KOP locations where agency management objectives would not be met, are shown in the KOP figures in **Appendix I** following the applicable KOP analysis sheet. Maps showing locations where applications of mitigation **VR-4** to the reference line would reduce impacts to levels compliant or consistent with agency management objectives are shown in **Appendix I**, **Figure I-13**. Maps showing locations where agency management objectives would be met with mitigation and where agency management objectives are not applicable are shown in **Appendix I**, **Figure I-14**. Mitigation **VR-4** would be applicable to, and subject to routing engineering study for, reference lines within a half-mile of linear KOPs, except for those reference lines crossing roads. Designated utility corridors considered in the analysis are shown in **Appendix I**, **Figure I-15**.

Table 3.12-18 Region IV Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)				Moderate Sensitivity Viewers (miles)				Scenic Quality (miles)			BLM VRI Classifications (miles)			BLM VRM Classifications (miles)			USFS SIO/VQO Classifications (miles)			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)						Utility Corridor or Utility Window[9]
																						Landscape Scenery			High Sensitivity Viewers			Moderate Sensitivity Viewers			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Alternative IV-A																																					
Alternative IV-A Total	**37**	**22**	**8**	**7**	**--**	**6**	**23**	**8**	**--**	**3**	**17**	**17**	**14**	**8**	**4**	**--**	**22**	**3**	**--**	**--**	**--**	**6**	**3**	**28**	**6**	**16**	**15**	**--**	**12**	**25**	**20**	**5**	**12**	**20**	**5**	**12**	**6**
620	6	2	2	2	--	2	4	--	--	--	--	6	--	6	--	--	6	--	--	--	--	--	--	6	--	2	4	--	2	4	6	--	<1	6	--	<1	5
630	4	4	--	--	--	1	3	--	--	--	4	1	4	<1	--	--	4	--	--	--	--	--	--	4	--	4	--	--	1	3	3	1	<1	3	1	<1	<1
660	8	8	<1	--	--	1	7	<1	--	2	6	1	6	--	<1	--	6	--	--	--	--	6	1	1	6	2	--	--	7	1	2	4	2	2	4	2	--
700	2	1	<1	--	--	1	1	--	--	1	--	<1	--	--	--	--	--	--	--	--	--	--	1	<1	--	1	<1	--	1	1	--	--	2	--	--	2	--
720	1	1	--	--	--	<1	1	--	--	<1	1	<1	1	--	--	--	1	--	--	--	--	--	<1	1	--	1	--	--	<1	1	1	--	1	1	--	1	--
740	4	4	--	--	--	<1	4	--	--	--	2	2	2	--	--	--	2	--	--	--	--	--	--	4	--	4	--	--	<1	4	2	--	2	2	--	2	--
790	12	2	6	5	--	1	3	8	--	<1	4	8	1	2	3	--	4	3	--	--	--	--	1	12	--	2	10	--	1	11	6	--	6	6	--	6	1
Alternative IV-B																																					
Alternative IV-B Total	**39**	**17**	**15**	**7**	**--**	**20**	**17**	**2**	**--**	**7**	**2**	**30**	**2**	**6**	**--**	**--**	**8**	**--**	**--**	**--**	**--**	**6**	**9**	**24**	**8**	**13**	**18**	**7**	**18**	**14**	**8**	**--**	**31**	**8**	**--**	**31**	**5**
620	6	2	2	2	--	2	4	--	--	--	--	6	--	6	--	--	6	--	--	--	--	--	--	6	--	2	4	--	2	4	6	--	<1	6	--	<1	5
640	4	4	--	--	--	--	4	--	--	--	2	2	2	<1	--	--	2	--	--	--	--	2	1	1	3	1	--	--	3	1	2	--	2	2	--	2	<1
670	4	2	2	--	--	3	1	--	--	3	<1	1	<1	--	--	--	<1	--	--	--	--	3	1	--	2	2	--	3	1		<1	--	4	<1	--	4	--
710	8	5	3	--	--	7	1	--	--	3	--	5	--	--	--	--	--	--	--	--	--	1	6	2	3	5	1	4	4	<1	--	--	8	--	--	8	--
750	<1	--	<1	--	--	<1	--	--	--	<1	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	--	<1	--	<1		--	--	<1	--	--	<1	--
760	8	4	4	--	--	4	3	--	--	1	--	7	--	--	--	--	--	--	--	--	--	--	1	7	--	4	4	--	4	3	--	--	8	--	--	8	--
800	2	--	2	--	--	2	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	2	--	--	2	--	2		--	--	2	--	--	2	--
820	7	--	2	5	--	1	4	2	--	--	--	7	--	--	--	--	--	--	--	--	--	--	--	7	--	--	7	--	1	6	--	--	7	--	--	7	--
Alternative IV-C																																					
Alternative IV-C Total	**44**	**14**	**17**	**8**	**5**	**15**	**26**	**3**	**--**	**8**	**2**	**34**	**2**	**6**	**--**	**--**	**8**	**--**	**--**	**--**	**--**	**6**	**10**	**28**	**8**	**10**	**26**	**7**	**13**	**24**	**8**	**--**	**36**	**8**	**--**	**36**	**5**
620	6	2	2	2	--	2	4	--	--	--	--	6	--	6	--	--	6	--	--	--	--	--	--	6	--	2	4	--	2	4	6	--	<1	6	--	<1	5
640	4	4	--	--	--	--	4	--	--	--	2	2	2	<1	--	--	2	--	--	--	--	2	1	1	3	1	--	--	3	1	2	--	2	2	--	2	<1
670	4	2	2	--	--	3	1	--	--	3	<1	1	<1	--	--	--	<1	--	--	--	--	3	1	--	2	2	--	3	1	--	<1	--	4	<1	--	4	--
710	8	5	3	--	--	7	1	--	--	3	--	5	--	--	--	--	--	--	--	--	--	1	6	2	3	5	1	4	4	<1	--	--	8	--	--	8	--
750	<1	--	<1	--	--	<1	--	--	--	<1	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	--	<1	--	<1	--	--	--	<1	--	--	<1	--
771	22	1	10	6	5	3	16	3	--	2	--	20	--	--	--	--	--	--	--	--	--	--	2	20	--	1	21	--	3	19	--	--	22	--	--	22	--
Marketplace Variation																																					
810	8	--	3	4	--	1	4	3	--	--	--	8	--	1	2	--	3	--	--	--	--	--	3	5	--	3	5	--	3	5	3	--	5	3	--	5	<1
Marketplace Variation Comparison																																					
820	7	--	2	5	--	1	4	2	--	--	--	7	--	--	--	--	--	--	--	--	--	--	--	7	--	--	7	--	1	6	--	--	7	--	--	7	--

Table 3.12-18 Region IV Route Comparison by Alternative and Segment

Alternative/Segment	Total Miles	High Sensitivity Viewers (miles)				Moderate Sensitivity Viewers (miles)				Scenic Quality (miles)			BLM VRI Classifications (miles)			BLM VRM Classifications (miles)			USFS SIO/VQO Classifications (miles)			Residual Impacts (miles)									BLM VRM USFS SIO/VQO Compliance/Consistency (miles)						Utility Corridor or Utility Window[9]
																						Landscape Scenery			High Sensitivity Viewers			Moderate Sensitivity Viewers			Before Mitigation			After Mitigation			
		0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	0–0.5 miles	0.5–2.5 miles	2.5–5 miles	>5 miles	A	B	C	Class II	Class III	Class IV	Class II	Class III	Class IV	High Retention	Moderate Partial Retention	Low Modification	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	Compliant	Non-compliant	NA	Compliant	Non-compliant	NA	
Sunrise Mountain Connector																																				
650	3	3	--	--	--	1	2	--	--	--	3	--	3	--	--	--	3	--	--	--	--	2	--	1	2	1	--	1	1	<1	2	1	--	2	1	--	--
Lake Las Vegas Connector																																				
680	4	3	1	--	--	4	--	--	--	2	--	1	--	--	--	--	--	--	--	--	--	2	1	--	3	1	--	4	--	--	--	--	4	--	--	4	--
Three Kids Mine Connector																																				
690	5	5	1	--	--	1	5	--	--	1	1	4	1	--	--	--	1	--	--	--	--	2	4	--	5	1	--	1	5	--	1	--	5	1	--	5	--
River Mountain Connector																																				
730	7	3	4	--	--	<1	5	2	--	<1	2	5	2	--	--	--	2	1	--	--	--	2	3	2	3	2	2	--	4	3	2	--	5	2	--	5	--
Railroad Pass Connector																																				
780	3	1	2	--	--	3	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	3	--	1	2	--	3	--	--	--	3	--	--	3	--

1 High Sensitivity and Moderate Sensitivity Viewers' analysis and mapping for the Project encompass public and private viewers' concern for landscape scenery (**Appendix I, Tables I-3** and **I-4**; **Appendix I**, **Figure I-4**). The distance and visibility factors are based on the characteristics of TWE facilities, divided into four zones(**Appendix I**, **Tables I-3** and **I-4**; **Appendix I**, **Figures I-4**, **I-5**, and **I-6**).

2 Scenic Quality or scenic attractiveness is rated Class A, Class B, or Class C for highest to lowest quality or attractiveness (**Appendix I, Table I-1**; **Appendix I, Figures I-2** and **I-3**).

3 BLM VRI classifications represent this relative value of visual resources and provide the basis for considering visual values in the resource management planning process. VRI Class II, III, and IV (high to low) are determined based on the combination of scenic quality, sensitivity levels, and distance zones. VRI Class I is assigned to special management areas (**Appendix I, Table I-5**; **Appendix I, Figure I-7**).

4 BLM VRM classifications result from the RMP land use planning process for all BLM-administered lands (**Table 3.12-1**) (**Appendix I, Table I-7**; **Appendix I**, **Figure I-8**).

5 USFS SIO or VQO Classifications result from the national forest planning process for all USFS-administered lands (**Table 3.12-2**) (**Appendix I, Table I-7**; **Appendix I**, **Figure I-8**).

6 Residual Impacts for Landscape Scenery (**Table 3.12-7**) involves the comparison of contrasts after mitigation with the scenic quality inventory of the affected environment (**Table 3.12-4**).

7 Residual Impacts for High Sensitivity and Moderate Sensitivity Viewers (**Table 3.12-5**) involves comparison of contrasts after mitigation with distance zones (**Table 3.12-6**) and viewers' concern levels (**Table 3.12-5**).

8 BLM VRM, USFS SIO, or USFS VQO Compliance or Consistency (**Table 3.12-8**) involves comparisons of agency management objectives with contrast ratings from 309 KOPs (**KOP Figures** in **Appendix I**).

9 Calculations associated with Utility Corridors and Utility Windows involve the intersection of the Project reference line with the areas/polygons of the corridors or windows. These corridors or windows take precedence over the compliance and consistency determinations and as such negate the need for updates of the land use plans.

Note: Discrepancies in totals due to rounding. Segment numbers depicted in **Figure 2-24**.

Scenic Quality

Existing scenic quality may be lowered by the Project, depending on the context. This is determined based on analysis of existing scenic quality rating/scores, existing landscape character, presence or absence of existing industrial development (transmission lines, pipelines, land disturbances, etc.), and the effect of introducing the Project into the landscape as either a new or additional cultural modification. Those segments where the existing scenic quality would be lowered by the Project to a lower class (Class A to Class B or Class B to Class C) are shown in **Table 3.12-19**. Segment- and milepost-specific data for change in scenic quality is shown in **Appendix I**, **Table I-12**.

Table 3.12-19 Region IV Scenic Quality Class Changes by Alternative and Segment

Alternative	Total Miles	Class A to B	Class B to C	No Change
Alternative IV-A				
620	6	--	--	6
630	4	--	--	4
660	8	--	--	8
700	2	--	--	2
720	1	--	--	1
740	4	--	--	4
790	12	--	--	12
Alternative IV-B				
620	6	--	--	6
640	4	--	--	4
670	4	--	--	4
710	8	--	--	8
750	<1	--	--	<1
760	8	--	---	8
800	2	--	--	2
820	7	--	--	7
Alternative IV-C				
620	6	--	--	6
640	4	--	--	4
670	4	--	--	4
710	8	--	--	8
750	<1	--	--	<1
771	22	--	--	22
Marketplace Variation				
810	8	--	--	8
Marketplace Variation Comparison				
820	7	--	--	7

Table 3.12-19 Region IV Scenic Quality Class Changes by Alternative and Segment

Alternative	Total Miles	Class A to B	Class B to C	No Change
Sunrise Mountain Connector				
650	3	--	--	3
Lake Las Vegas Connector				
680	4	--	--	4
Three Kids Mine Connector				
690	5	--	--	5
River Mountain Connector				
730	7	--	--	7
Railroad Pass Connector				
780	3	--	--	3

Segment numbers depicted in **Figure 2-24**.

Public Viewers and Visibility of the Project

Immediate foreground (0 to 0.5-mile) visibility of the Project is influential in the experiences of viewers and indicative of the level of impacts to people. The following **Table 3.12-20** indicates visibility by alternative and segment for those immediate foreground public places, designated special management areas, lakes and reservoirs, rivers, roads, scenic byways and backways, and historic trails where visual resources are important to recreational and viewer experiences. Viewing situations in these locations are both stationary and mobile.

Table 3.12-20 Region IV Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
IV-A	620	Apex Rd, Rainbow Gardens ACEC, Sunrise Mountain SRMA 0 Residences
IV-A	630	Gypsum Rd, Gypsum Spring, SR 147, Sunrise Mountain Instant Study Area (ISA) 0 Residences
IV-A	660	4wd Rd, Argonaunt, Armillaria St, Bee Balm Ct, Big Bird Ct, Black Lava Ct, Boletus Dr, Broken Hills Dr, Brown Hill Ct, Calico Ridge Dr, Camelia Dr, Candy Tuft Dr, Chanterelle Dr, Charlene Ct, Chrysanthemum Rd, Clark County Wetlands Park, Companion Way, Cutter St, Feather Haven Ct, Feather Point Ct, Geranium Dr, Golda Way, Hyperion Dr, Iolite Ct, Luca Ln, Majesty Ct, Malachite Ct, Marigold Ct, Morning Melody Ct, Norellat Rd, Old Spanish Historic Trail, Pabco Rd, Primrose Ct, Primrose Ln, Pyrite Ave, Rainbow Gardens, Rhyolite Ter, Roy Way, Rubellite St, Skysail Dr, SR 146, Verdite Ave, Weatherboard St, Whistle Ct, White Hill Cir 550 Residences
IV-A	700	4wd Rd, Essex Ave, Foothill Dr, Ithaca Ave 0 Residences
IV-A	740	Las Vegas Valley SRMA, River Mountains ACEC 8 Residences
IV-A	790	4wd Rd, Black Hill, Car Country Blvd, E Horizon Ridge Pky, Nelson/ Eldorado SRMA, Sloan Canyon NCA, Trail, US 93 0 Residences
IV-B	620	Apex Rd, Rainbow Gardens ACEC, Sunrise Mountain SRMA 0 Residences

Table 3.12-20 Region IV Immediate Foreground Viewing Situations by Alternative and Segment

Alternative	Segment	Human Environment
IV-B	640	Gypsum Rd, Pabco Rd 0 Residences
IV-B	670	Las Vegas Wash, Lava Butte Wash, SR 146, SR 167 0 Residences
IV-B	710	Boulder Beach Cmpgrnd, Boulder Canyon Project Federal Reservation, Lake Mead National Recreation Area, Lake Mead Rd, Ramp, SR 166 16 Residences
IV-B	750	Las Vegas Bay Rd, Ramp, SR 166 0 Residences
IV-B	760	Aaron Way, Black Canyon Cove Rd, Bootleg Canyon, Bootleg Canyon, Bootleg Wash, Calumet Ln, Cascata Golf Course, Connecting Rd, Genni Pl, Golf Course, Greenbriar Pl, Hemenway Cove, Hidden Cove, Isabel Ln, Island Cove, Jani Pl, Judi Pl, Kati Pl, Katzenbach Dr, Kendall Ln, Keys Dr, Kingman Cove, Lake Erie Ln, Lake Havasu Ln, Lake Huron Ln, Lake Merritt Ln, Lake Michigan Ln, Lake Mountain Dr, Lake Ontario Ln, Lake Superior Ln, Lake Tahoe Ln, Lake Terrace Dr, Lake Winnebago Ln, Lakes Dr, Lido Dr, Marina Cove, Marina Dr, Mount Antero Way, Mount Bear Way, Mount Blackburn Ln, Mount Bona Way, Mount Elbert Way, Mt Hunter Way, Mount Tamalpais Way, Mount Williamson Way, Mt Ranier Way, Old Spanish Historic Trail, Pacifica Way, Patti Pl, Robinson Ln, Robinson Way, Swallow Cove, Tara Ct, US 93, Veterans Dr, Veterans Memorial Dr, Ville Dr, Woodacre Dr, Woodcrest Dr, Yates Ln, Yucca St 516 Residences
IV-B	820	Lake Mead National Recreation Area 0 Residences
IV-C	620	Apex Rd, Rainbow Gardens ACEC, Sunrise Mountain SRMA 0 Residences
IV-C	640	Gypsum Rd, Pabco Rd 0 Residences
IV-C	670	Las Vegas Wash, Lava Butte Wash, SR 146, SR 167 0 Residences
IV-C	710	Boulder Beach Campground, Boulder Canyon Project Federal Reservation, Lake Mead National Recreation Area, Lake Mead Rd, Ramp, SR 166 16 Residences
IV-C	750	Las Vegas Bay Rd, Ramp, SR 166 0 Residences
IV-C	771	Adams Blvd, Alaska Ave, Bronco Rd, Chestnut Ln, Del Prado Dr, El Canto Way, Lake Mead National Recreation Area, Olmo Way, Otono Dr, Ramp, Rawhide Rd, Rest Area, Smoke Ranch Rd, Sorrel Rd, SR 166, US 93, US 95 94 Residences
Marketplace Alternative Variation	820	Lake Mead National Recreation Area 0 Residences
Lake Las Vegas Alternative Connector	680	Lake Las Vegas Pky, Lake Mead NRA, Old Spanish Historic Trail, Pyrenees Ct, Ramp, Rest Area, SR 146 0 Residences
River Mountain Alternative Connector	730	River Mountains 0 Residences

Segment numbers depicted in **Figure 2-24**.

Vegetation Treatments

Scenarios for vegetation treatments are listed in the PDTR (**Appendix D**). Clearing of plants above four-feet in height would occur in the 250-foot corridor unless otherwise specified in the PDTR. Only the 90-foot-wide "wire zone" and 250-foot-square structure construction area would be cleared in corridors classified as VRM

Class II, SIO High, and VQO Retention. Key factors in the determination of impacts to the visual resource include viewing distances, presence or absence of tree cover, and steepness of topographic slopes. Application of **VR-1** would preserve pinyon-juniper trees, except for those impeding tower and access road construction. The edges between clearings and forest would be feathered in all species. The presence of moderate to steep slopes increases visibility of vegetation treatments for ROWs and for access roads, as compared to flat slopes. These factors are included in the analysis of impacts to scenery and to sensitive viewers. Reclamation recovery time analyses, specific to views from the 309 KOPs and involving topographic slope, topographic aspect and vegetation type, are shown in **Appendix I**, **Table I-12**. The results are central components in **Table 3.12-20**.

The geographic context, distances, and spatial relationship between visual resources and the Project reference lines by segment and milepost for Region IV are portrayed by tables and maps of scenic quality classes (tables in **Appendix I** and **Figure I-2**), sensitivity levels (tables in **Appendix I** and **Figure I-4**), visual resource inventory classes (tables in **Appendix I** and **Figure I-7**), and visual resource management classes (tables in **Appendix I** and **Figure I-8**). All BLM VRI distance zones were inventoried as foreground-middleground for the Project study area and are therefore not shown with map figures. Project-specific distance zones are included in the analyses for impacts to landscape scenery, sensitive viewers, and compliance or consistency with BLM or USFS management objectives, respectively.

There were 15 KOPs selected, photographed, and analyzed in Region IV. The KOP figures in **Appendix I** portray the location information for each KOP, photograph of the existing condition for each KOP, estimated structure locations, Google Earth 3D locations and heights of Project structures, associated visual contrast rating form analysis, compliance with agency management objectives, and recommended mitigation, Three photographic simulations of the Project in Region IV, for those KOP locations where agency management objectives would not be met, are shown in the tables in **Appendix I** and shown in a photographic figure following each applicable KOP in the KOP figures in **Appendix I**.

Alternative IV-A (Agency Preferred and Applicant Proposed)

Alternative IV-A would cross 37 miles of landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would cross the Sunrise Mountain ISA, a VRM Class I landscape. It would cross the Old Spanish Trail, Lake Mead Boulevard (the accessway to Lake Mead NRA), I-15, and U.S. 93-95, in addition to several recreational roads and trails (**Table 3.12-20**), and would be “sky-lined” (increased impact) in those areas. Recreationally important landscapes include the Clark County Wetlands Park, Sunrise Mountain ISA, Rainbow Gardens ACEC, and the Las Vegas Wash area, where the Project’s guyed and, substantially more dominant, self-supported structures would stand out visually more than they would if seen in the same viewshed with existing transmission line structures. The majority of Alternative IV-A would parallel existing transmission lines in valley situations, but sometimes is distanced enough to be on the opposite side of ridgelines. Landscape photography and project simulations are located in **Appendix I**, in the Lake Mead NRA and Las Vegas FO sections.

Alternative IV-A would be visible in the immediate foreground from 558 residences. Sixteen percent of Alternative IV-A would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Sixteen percent of Alternative IV-A would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). Alternative IV-A would cross 1.1 miles of the Sunrise Mountain ISA VRM Class I landscape where changes may be ecological or from very limited management activities. However, in this area, it would closely parallel four existing transmission lines. Fourteen percent of Alternative IV-A would not comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads and trails, where the Project is “sky-lined” and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative IV-A has decreased impacts compared with Alternative IV-B and Alternative IV-C, except where it would cross the Rainbow Gardens ACEC area which is undeveloped and would cause localized increased impacts over Alternative IV-B and Alternative IV-C. Eighty-six percent of the Alternative IV-A reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative IV-B

Alternative IV-B would cross 39 miles of landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would cross the Old Spanish Trail, Lakeshore Road through Lake Mead NRA, I-15, and U.S. 93-95, in addition to several recreational roads and trails (**Table 3.12-20**), and would be "sky-lined" (increased impact) in those areas. Recreationally important landscapes include the Lake Mead NRA, the Las Vegas Bay boat launch area, Lake Mead Marina, and Boulder Harbor, where the Project's guyed and, substantially more dominant, self-supported structures would be seen with existing transmission line structures. The majority of Alternative IV-B would parallel existing transmission lines in valley situations, but sometimes is distanced enough to be on the opposite side of ridgelines. Landscape photography and project simulations are located in **Appendix I**, in the Lake Mead NRA and Las Vegas FO sections.

Alternative IV-B would be visible in the immediate foreground from 532 residences. Fifteen percent of Alternative IV-B would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Twenty-one percent of Alternative IV-B would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). All of Alternative IV-B would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads and trails, where the Project is "sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative IV-B has increased impacts compared with Alternative IV-A, and has comparable impacts to Alternative IV-C. Thirteen percent of the Alternative IV-B reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Alternative IV-C

Alternative IV-C would cross 44 miles of landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would cross the Old Spanish Trail, Lakeshore Road through Lake Mead NRA, I-15, and U.S. 93-95, in addition to several recreational roads and trails (**Table 3.12-20**), and would be "sky-lined" (increased impact) in those areas. Recreationally important landscapes include the Lake Mead NRA, the Las Vegas Bay boat launch area, Lake Mead Marina, Boulder Harbor, and the south entry to Lake Mead NRA, where the Project's guyed and, substantially more dominant, self-supported structures would be seen with existing transmission line structures. The majority of Alternative IV-C would parallel existing transmission lines in valley situations, but sometimes is distanced enough to be on the opposite side of ridgelines. Landscape photography and project simulations are located in **Appendix I**, in the Lake Mead NRA and Las Vegas FO sections.

Alternative IV-C would be visible in the immediate foreground from 110 residences. Thirteen percent of Alternative IV-C would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Eighteen percent of Alternative IV-C would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). All of Alternative IV-C would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer. These locations are primarily associated with crossings of roads and trails, where the Project is

"sky-lined" and cannot be moved out of view, where there are no existing transmission lines, and where the Project dominates the view.

Alternative IV-C has increased impacts compared with Alternative IV-A, and has comparable impacts to Alternative IV-B. Eleven percent of the Alternative IV-C reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

Sunrise Mountain Alternative Connector

The Sunrise Mountain Alternative Connector would cross 3 miles of landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would cross Lake Mead Boulevard in an area with an existing transmission line and would cross four additional transmission lines near its terminus with Alternative IV-A. The Sunrise Mountain Alternative Connector would cross the Sunrise Mountain ISA, a VRM Class I landscape. The Sunrise Mountain Alternative Connector would be visible in the immediate foreground from zero residences. Sixty-seven percent of the Sunrise Mountain Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Sixty-seven percent of The Sunrise Mountain Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). Thirty-four percent of the Sunrise Mountain Alternative Connector would not comply with agency management objectives after mitigations (Section 3.12.6.3).

Due to its location in developed landscape, the Sunrise Mountain Alternative Connector has comparable impacts to the Lake Las Vegas Alternative Connector and River Mountain Alternative Connector. It has decreased impacts over the Railroad Pass Alternative Connector. The Sunrise Mountain Alternative Connector has increased impacts over the Three Kids Mine Alternative Connector. None of the Sunrise Mountain Connector reference line would be located within a utility corridor or utility window.

Lake Las Vegas Alternative Connector

The Lake Las Vegas Alternative Connector would cross 4 miles of landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would parallel Lake Mead Drive in an area with an existing transmission line. The Lake Las Vegas Alternative Connector would be visible in the immediate foreground from zero residences. Fifty percent of the Lake Las Vegas Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Seventy-five percent of The Lake Las Vegas Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). All of the Lake Las Vegas Alternative Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

Due to its location in developed landscape, the Lake Las Vegas Alternative Connector has comparable impacts to the Sunrise Mine Alternative Connector and River Mountain Alternative Connector. It has decreased impacts over the Railroad Pass Alternative Connector. The Lake Las Vegas Alternative Connector has increased impacts over the Three Kids Mine Alternative Connector. None of the Lake Las Vegas Connector reference line would be located within a utility corridor or utility window.

Three Kids Mine Alternative Connector

The Three Kids Mine Alternative Connector would cross 5 miles of undeveloped landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would be visible in the immediate foreground from zero residences. Forty percent of the Three Kids Mine Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or

moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). One hundred percent of The Three Kids Mine Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). All of the Three Kids Mine Alternative Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

Due to its location in undeveloped landscape, the Three Kids Mine Alternative Connector has increased impacts over the Sunrise Mine Alternative Connector, Railroad Pass Alternative Connector, and River Mountain Alternative Connector. None of the Three Kids Mine Connector reference line would be located within a utility corridor or utility window.

River Mountain Alternative Connector

The River Mountain Alternative Connector would cross 7 miles of landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would parallel an existing transmission line. The River Mountain Alternative Connector would be visible in the immediate foreground from zero residences. Twenty-nine percent of the River Mountain Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). Forty-three percent of the River Mountain Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). All of the River Mountain Alternative Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

Due to its location in developed landscape, the River Mountain Alternative Connector has comparable impacts with the Sunrise Mine Alternative Connector, Railroad Pass Alternative Connector, and River Mountain Alternative Connector. It has increased impacts over the Three Kids Mine Alternative Connector. None of the River Mountain Connector reference line would be located within a utility corridor or utility window.

Railroad Pass Alternative Connector

The Railroad Pass Alternative Connector would cross 3 miles of landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would parallel an existing transmission line. The Railroad Pass Alternative Connector would be visible in the immediate foreground from zero residences. None of the Railroad Pass Alternative Connector would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). None of The Railroad Pass Alternative Connector would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). All of the Railroad Pass Alternative Connector would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

Due to its location in developed landscape, the Railroad Pass Alternative Connector has comparable impacts with the Sunrise Mine Alternative Connector, Railroad Pass Alternative Connector, and River Mountain Alternative Connector. It has decreased impacts over the Three Kids Mine Alternative Connector. None of the Railroad Pass Connector reference line would be located within a utility corridor or utility window.

Marketplace Variation

The Marketplace Variation would cross 8 miles of landscapes in the Sonoran Desert Section of the Basin and Range Province (Section 3.12.5.7). It would cross U.S. 95 and would be “sky-lined” (increased impact)

in that area. The Marketplace Variation would be visible in the immediate foreground from zero residences. None of the Marketplace Variation would cause high impacts to landscape scenery. These locations are associated with Class A scenery with high or moderate contrasts or Class B scenery with high contrasts (**Table 3.12-4**). None of The Marketplace Variation would cause high impacts to high sensitivity recreational and residential viewers. These locations are associated with immediate foreground (0 to 0.5-mile) viewing situations (**Table 3.12-20**). All of the Marketplace Variation would comply with agency management objectives after mitigations (Section 3.12.6.3), where changes may attract attention, but should not dominate the view of the casual observer.

Due to its location in undeveloped landscape, the Marketplace Variation has increased impacts over Alternative IV-B (which would parallel multiple transmission lines). Less than 1 percent of the Marketplace Variation reference line would be located within a utility corridor or utility window, where compliance or consistency with agency visual management objectives would be preempted by the utility corridor.

3.12.6.8 Residual Impacts

All of the action alternatives would result in residual impacts to people and scenery. Topographic modifications on moderate to steep slopes, vegetation management, and sky-lined structures situated in the immediate foreground would impact sensitive viewers and Class A and Class B scenery.

The application of substantive mitigation measures would reduce visual impacts from high to moderate, or moderate to low. These reductions are applicable to viewing situations involving stationery (non-linear) viewers and to landscapes where tree cover and moderate to steep landforms contribute strongly to visual impacts. Residual impacts (what would remain after mitigation) for landscape scenery, high viewer sensitivity and moderate viewer sensitivity by alternative and segment are listed in regional impacts sections. Residual impacts to landscape scenery, high viewer sensitivity and moderate viewer sensitivity by region, alternative, segment, and mileposts (as if, “walking the line”) are listed in **Appendix I**, **Tables I-11** through **I-14**, respectively.

3.12.6.9 Impacts from the No Action Alternative

Current management across the study area would be maintained under the No Action alternative. Under this alternative, there would be no project construction or operation to impact visual resources.

3.12.6.10 Irreversible and Irretrievable Commitment of Resources

Irretrievable impacts to visual resources are anticipated where pinyon-pine, ponderosa, spruce-fir, cottonwood and aspen are involved in ROW management, since trees would not be replanted, or would be replanted and result in age disparities, and the effects would be noticeable to the casual observer.

Vegetation management effects in these ROWs would be irretrievable in the long term (50 to 100 years), or until wildfires or large scale vegetation management actions clear vegetation in patterns informed by the topography. The impacts are noted in the tables in the impacts sections for Regions I, II, and III. No irreversible impacts would occur assuming long-term time frames and complete restoration after decommissioning.

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

Short-term vegetation management may impair long-term visual resources.