

**Appendix E – Visual Resources
Supporting Data**

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APPENDIX E – VISUAL RESOURCES SUPPORTING DATA

As discussed in Chapter 3, visual resources were inventoried and assessed for all land jurisdictions within a 6-mile-wide corridor (centered on the Project reference centerlines), including Bureau of Land Management (BLM), U.S. Forest Service (USFS), Bureau of Indian Affairs (BIA), state, and private. Landscape scenery, sensitive viewers, and agency visual management objectives were the primary inventory components as described in the following section. Where available, planning-level agency data were acquired and processed for inclusion in the affected environment and environmental effects discussions. Where such data were deficient, or were too general to be used for impact analysis, data were developed and reviewed by applicable agency visual resource personnel. Following is a summary of the methodology used to inventory visual resources (Figure E-1).

E.1 Inventory Methodology

The visual resource inventory methodology was developed in consultation with agency visual resource specialists and was derived from, and is consistent with, the BLM Visual Resource Management (VRM) Manual (BLM 1986) and USFS Scenery Management System (SMS) as described in *Landscape Aesthetics: A Handbook for Scenery Management* (USFS 1995) (Figure E-2). Visual resources were inventoried on all land affected by the Project based on the review and consideration of aerial photography, agency-specific maps, planning documents (i.e., municipal plans, Resource Management Plans [RMPs]), and consultation with appropriate personnel. All inventory components were verified through detailed field investigations and reviewed and updated based on agency consultation. Landscape scenery, sensitive viewers, and agency visual management objectives are described below.

E.1.1 Landscape Scenery

E.1.1.1 Scenic Quality/Scenic Attractiveness

Both scenic quality (BLM) and scenic attractiveness (USFS) are measures of the inherent aesthetics of a given landscape and were inventoried for the Project. The inventory of landscape scenery was conducted for the entire study, regardless of jurisdiction, within a 3-mile-wide corridor centered on the Project reference centerlines. Scenic Quality/Scenic Attractiveness Rating Worksheets were developed in accordance with BLM and USFS visual policy during field investigations and revised as needed based on review by applicable visual resource personnel. The ratings of each scenic quality rating unit were developed in the context of the entire physiographic region and compared for consistency with agency planning-level documentation where available. Scenic quality was assessed and mapped at a scale commensurate with assessing impacts resulting from the Project (i.e., greater than 1:24,000) based on review of aerial imagery, Southwest Regional Gap Analysis Project (GAP) landcover data, U.S. Geological Survey (USGS) topographic maps, and 30-meter digital elevation models (DEM). Below is a brief summary of the scenic quality ratings that were applied to inventoried landscapes.

- Class A – landscapes with distinctive or outstanding diversity or interest
- Class B – landscapes with common or average diversity or interest
- Class C – landscapes with minimal diversity or interest

The majority of the landscapes crossed by the Project were typical of Class C scenery (i.e., little landform variation occupied by low diversity plant communities). Limited Class B landscapes crossed by the Project were identified in the Pahvant Mountain Range, Tushar Mountains, Clear Creek Canyon, Sevier River floodplain, Bull Valley Mountains, Atchinson Mountains, Mineral Mountains, and their surrounding foothills. Class A scenic quality areas were limited to isolated locations in the Pine Valley Mountains and Marysvale Canyon.

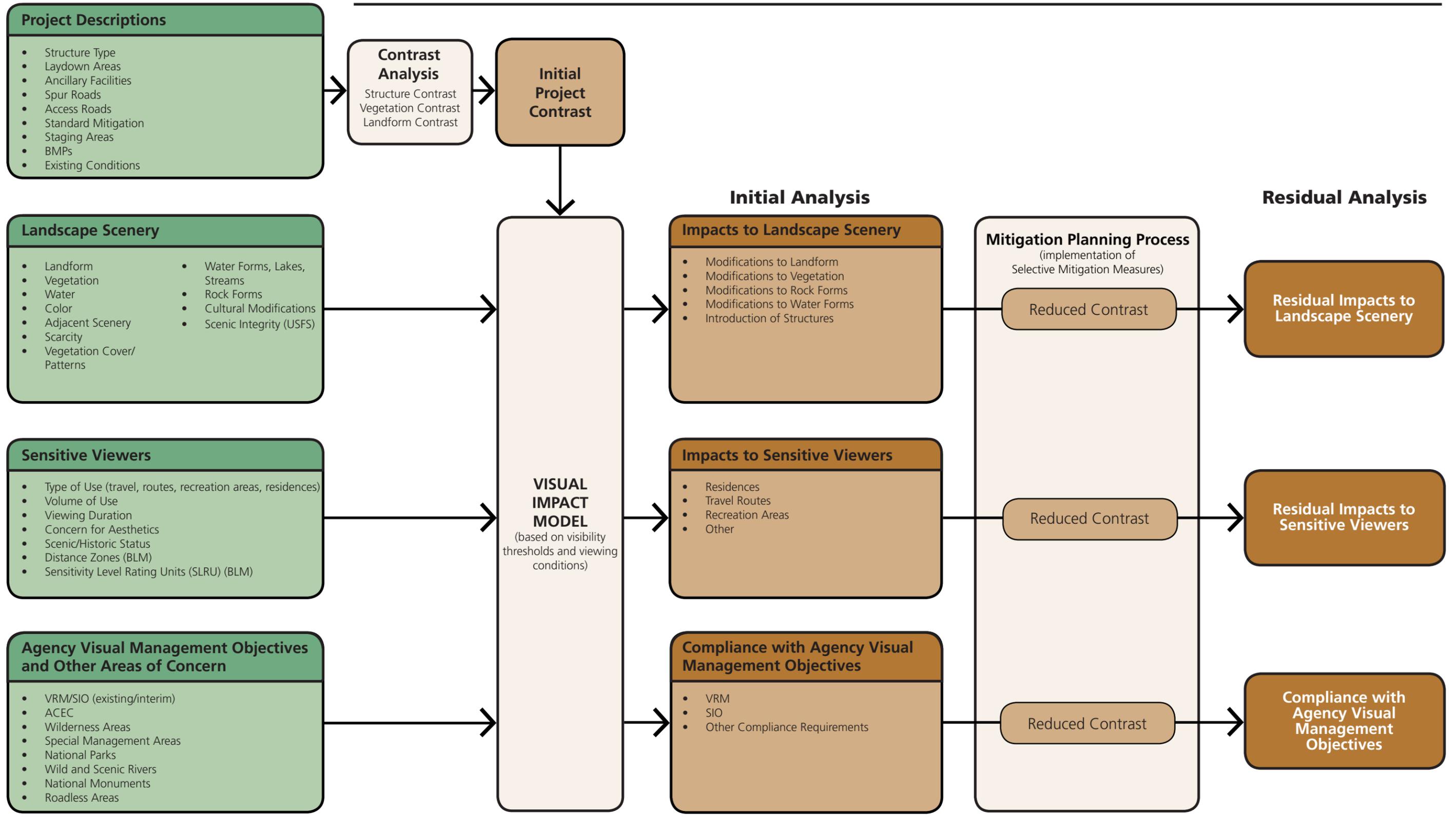
E.1.1.2 Scenic Integrity

Scenic integrity refers to the measure of intactness associated with the landscape components that define a given landscape (i.e., landform, vegetation, rockform, etc). Note the measurement of scenic integrity is specific to USFS-administered lands based on consultation with USFS landscape architects. In that regard, landscape integrity was used to adjust scenic quality/scenic attractiveness delineation on USFS-administered lands. A landscape that appears largely natural with minimal cultural modifications is considered to have high scenic integrity. Those landscapes occupied by human introductions (i.e., existing utility corridors) that modify the natural character of a landscape are characterized as having moderate-to-low scenic integrity depending on the influence of such introductions. Some human introductions of landscape features can be compatible with the landscape character (e.g., trails, campgrounds, picnic areas, chained areas, etc.) and can contribute or enhance scenic integrity through increasing landscape variety and developing a sense of place (consultation with USFS, September 2010). Scenic integrity was inventoried as very high, high, moderate, low, very low, and unacceptably low as described in the SMS handbook. Table E-1 provides the range and associated definitions of integrity levels.

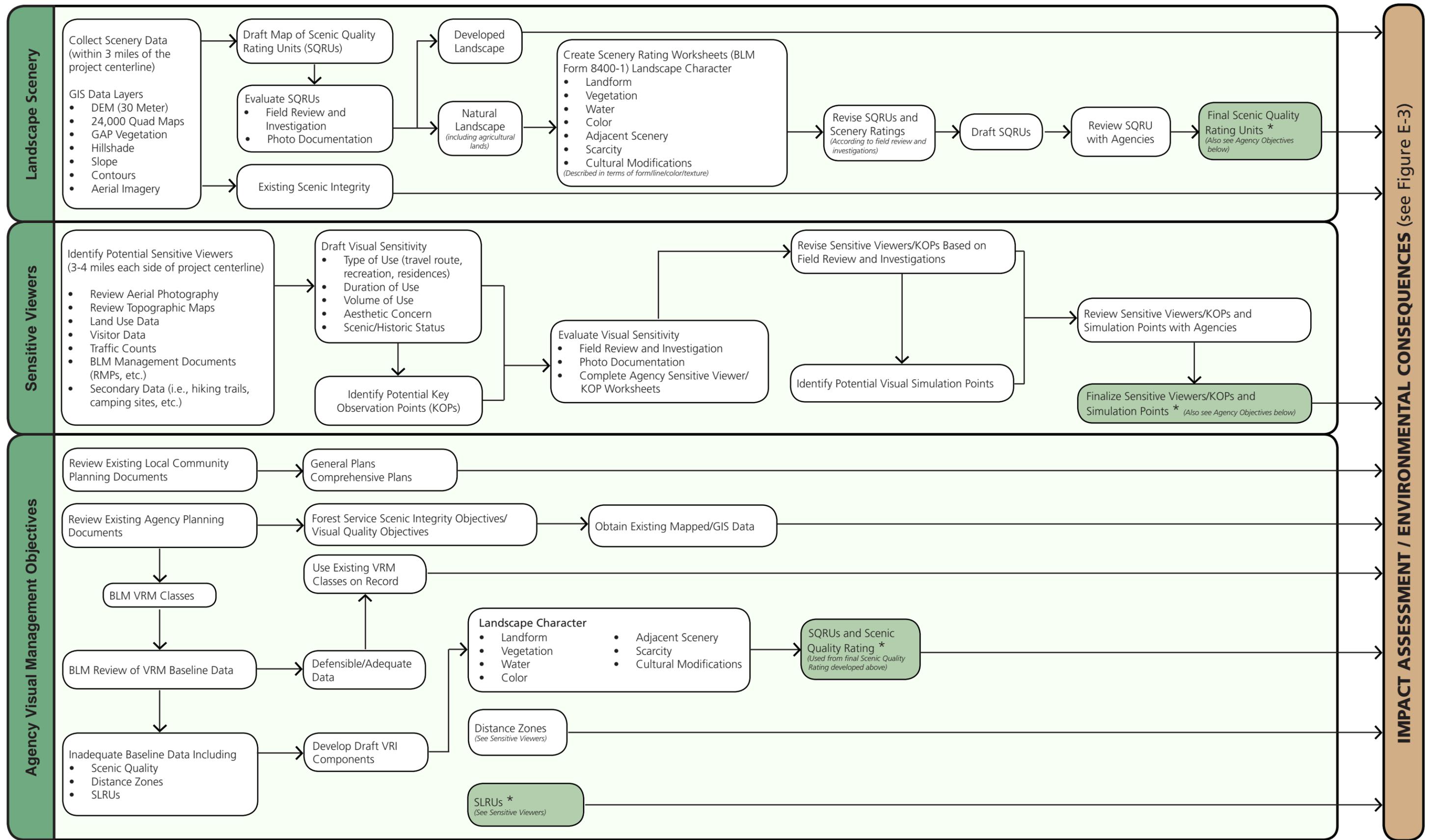
TABLE E-1 UNITED STATES FOREST SERVICE SCENIC INTEGRITY LEVELS	
Level	Description
Very High	The valued landscape character “is” intact with only minute, if any, deviations. The existing landscape character and sense of place is expressed at the highest possible level.
High	The valued landscape character “appears” intact. Deviations may be present but must repeat form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.
Moderate	The valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Low	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, vegetation type changes, or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.
Very Low	The valued landscape character “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 opening, vegetation type changes, or architectural styles within or outside the landscape being viewed. However, deviations must be shaped and blended with the natural terrain (landforms) so elements such as unnatural edges, roads, landings, and structures do not dominate the composition.
Unacceptably Low	The valued landscape being viewed appears extremely altered. Deviations are extremely dominant and borrow little if any form, line, color, texture, pattern, or scale from the landscape character. Landscapes at this level of integrity need rehabilitation.
SOURCE: USFS 1995	

**INVENTORY DATA /
AFFECTED ENVIRONMENT**
(see Figure E-2)

IMPACT ASSESSMENT / ENVIRONMENTAL CONSEQUENCES (see Figure E-3)



Sigurd to Red Butte No.2
345kV Transmission Project
Figure E-1 Visual Study Flowchart



Sigurd to Red Butte No. 2
345kV Transmission Project
Figure E-2 Visual Inventory Process

Scenic integrity was inventoried in the Dixie National Forest as shown in the included Dixie National Forest Scenic Integrity Objectives (SIO) Report within 3 miles of Project reference centerlines. On the Fishlake National Forest, scenic integrity was inventoried along the Project alternative route. Scenic integrity ratings were assigned to USFS landscapes using Geographic Information Systems (GIS), considering aerial imagery, forest management plans, USGS topographic maps, inventoried roadless areas (IRAs), and recreation opportunity spectrum (ROS) information. Scenic integrity was verified through field investigations and reviewed and finalized with input from USFS landscape architects.

E.1.2 Sensitive Viewers

The term “sensitive viewers” represents the viewing public that would potentially be affected by the Project and relates to BLM VRM key observation points (KOPs) and Sensitive Level Rating Units (SLRUs) (discussed in Section E.1.4.2), as well as the USFS’s concern levels. Sensitive viewers that may have views of the proposed Project were identified and inventoried up to 3 miles from the proposed Project. Additional sensitive viewers, from 3 to 5 miles and beyond, were identified on a case-by-case basis in conjunction with the agencies that have national importance. The identification of sensitive viewers was based on agency management plans; existing and future land uses; federal and state online databases; consultation with federal, state, and local recreation planners; and field investigations. KOPs representing typical views of the Project area were identified and documented using high resolution photography and sensitive viewer inventory forms. Sensitive viewers that would have views of the Project include:

- Residences – single-family detached structures, apartments, and permanent mobile homes or mobile home parks
- Travel routes – highways and roads used by travelers, designated scenic or historic byways, and recreation roads
- Recreation areas – existing recreation sites used for picnicking, camping, hiking, scenic overlooks, rest areas, parks, and other recreation areas

E.1.2.1 Residences

Major residential development is located in the northern portion of the Project area, including Sigurd, Richfield, Elsinore, and Joseph. In the central portion of the Project area, the towns of Milford and Minersville contain concentrated residential development. In the southern portion of the Project area, the communities of Enterprise, Central, Pinto, and Pine Valley contain concentrated residential development. Dispersed residences are located in the Sevier River valley, Pinto Creek corridor, Escalante Desert, Escalante Valley, and Mountain Meadows.

E.1.2.2 Travel Corridors, Designated Scenic Roads, and Other Roads

Highways include those in the interstate system, as well as federal and state maintained roads. Interstate highways and U.S. highways in the study corridors include I-15, I-70, and U.S. 89. The following Utah state routes (SR) are located in the visual resource study corridor:

- | | | |
|---------|----------|----------|
| ■ SR 18 | ■ SR 118 | ■ SR 161 |
| ■ SR 21 | ■ SR 119 | ■ SR 219 |
| ■ SR 24 | ■ SR 120 | ■ SR 257 |
| ■ SR 56 | ■ SR 130 | ■ SR 258 |

Existing designated national, state, and local scenic highways, backways, and byways also were inventoried in the study corridors. The following designated scenic route was identified:

- Kimberly/Big John Road Scenic Backway (Forest Road [FR] 113) – This scenic backway starts at I-70 in the Fishlake National Forest and travels south to the Beaver Canyon Scenic Backway. Recreation opportunities include camping, hiking, access to historical mining areas, and access to high peaks within the Tushar Mountains.

Additional roads connect major highways, travel corridors, or population centers to locally and regionally significant areas such as regional parks, camping areas, hiking and biking trail systems, and other recreation areas. The following roads were identified in the study area:

- FR 007 – Ox Valley and the Hardscrabble Trail are accessed by this trail from SR 219
- FR 009 – Pinto is accessed by this road which connects SR 18 and SR 56
- FR 011 – Pinto and Pine Valley are connected by this road which starts in Newcastle and continues south to Pine Valley where it terminates
- FR 014 – Pinto Spring Trailhead is accessed by this road from FR 009
- FR 035 – Central and Pine Valley are linked by this road which begins at SR 18 and terminates in Pine Valley
- FR 255 – Mill Canyon Trailhead is accessed by this road from FR 011
- FR 375 – Mountain Meadows Massacre Site is accessed by this road from SR 18
- FR 478 – Access to Castle Rock Campground is provided by this road from I-70
- FR 565 – Water Canyon Trailhead is accessed by this road from FR 011
- Baker Dam Campground Destination Route – This route provides access to the Baker Dam Campground from SR 18
- Bench Road – Enterprise and Newcastle are connected by this road
- Beryl Milford Road – Beryl and Lund are linked to Milford by this road
- Clear Creek Canyon Road – Fremont Indian State Park is connected by this road to I-70
- Iron County Road 1740 – Access to Three Peaks Special Recreation Management Area is achieved by this road from the Lund Highway
- Lund Highway – Lund is connected to SR 56 and Cedar City by this road
- Rock Corral Recreation Area Destination Route – Provides access to the Rock Corral Recreation Area from SR 21

E.1.2.3 Recreation and Special Management Areas

National

- Old Spanish National Historic Trail – This trail stretches from Santa Fe, New Mexico, to Los Angeles, California, and is part of the National Historic Trail system. The delineation of the trail centerline was acquired from the National Historic Trail database.
- Escalante Trail – This trail may be eligible for National Historic Trail designation and was delineated from data acquired from the Cedar City Field Office.
- American Discovery Trail – This trail is a National Millennium Trail, which crosses the country from east to west. It shares its alignment with existing roads and trails.
- Paiute All-terrain Vehicle (ATV) Trail Network – This is a network of trails through the central portion of Utah, including access to Richfield, Joseph, Elsinore, the Fishlake National Forest, and Fremont Indian State Park. There are more than 900 miles of trail with portions that share alignments with Forest Service roads.

BLM

- Three Peaks Special Recreation Management Area (Cedar City Field Office) – This management area contains a system of off-highway vehicle (OHV), equestrian, and mountain bike trails. There is also a picnic area and staging area located east of the Three Peaks Range.
- Baker Dam Campground (St. George Field Office) – This developed camping facility is located southwest of Baker Dam Reservoir and is accessed from SR 18.
- Baker Dam Reservoir (St. George Field Office) – This reservoir is located south of Central and is used primarily for fishing since it does not have a boat ramp.

U.S. Forest Service

- Pine Valley Mountain Wilderness Area (Dixie National Forest) – This designated wilderness area is located south and east of the community of Pine Valley and covers more than 50,000 acres. Recreation opportunities include hiking and camping at dispersed sites.
- Castle Rock Campground (Fishlake National Forest) – This developed camping facility is located southwest of Fremont Indian State Park and is accessed by FR 478.
- Goat Spring Trail (Dixie National Forest) – This trail splits from the Indian Hollow Spring Trail and continues to the south traveling across the boundary of the Pine Valley Mountain Wilderness Area to Goat Spring.
- Summit/Rock Springs Trail (Dixie National Forest) – This trail begins at the Pinto Spring Trailhead and continues to the south where it provides access to the Pine Valley Mountain Wilderness Area.
- Water Canyon Trail and Trailhead (Dixie National Forest) – This trail begins at FR 565 and continues to the east where it provides access to the Pine Valley Mountain Wilderness Area.
- Pinto Spring Trailhead (Dixie National Forest) – This trailhead is also known as Paradise Trailhead and is located at the end of FR 014.
- Cemetery Trail and Trailhead (Dixie National Forest) – This trailhead is located adjacent to the Pine Valley Cemetery north of the community of Pine Valley. The trail follows the base of the Pine Valley Mountains to the north offering views of Pine Valley.
- Hardscrabble Trail (Dixie National Forest) – This trail starts along FR 007 and continues east along the Bull Valley Mountains.
- Indian Hollow Spring Trail (Dixie National Forest) – This trail starts at the west side of Pine Valley and continues to the southwest to Indian Hollow Spring.
- Shinbone Trail (Dixie National Forest) – This trail starts along FR 007 and continues southeast along the Bull Valley Mountains where it connects with the Hardscrabble Trail.
- Fish Creek Eligible Wild and Scenic River (Fishlake National Forest) – This creek was identified in an amendment to the Fishlake National Forest Management Plan in 2008 as an eligible Wild and Scenic River with the classification of recreational.

State

- Fremont Indian State Park – This state park is located adjacent to I-70 in Clear Creek Canyon. Amenities include hiking trails, picnic areas, and visitor center/museum.
- Annabella Wildlife Management Area (WMA) – This wildlife management area is located south of Richfield. Activities are dispersed and focused primarily on hunting and fishing.
- Beaver County WMA – This wildlife management area is made up of four parcels: two located south of Beaver, one located northeast of Beaver, and one located on the east side of the Mineral Mountains. Activities are dispersed and focused primarily on hunting.

- Snow College Richfield Campus – This campus is on the west side of Richfield and contains the Sevier Valley Center, which hosts a variety of community events.

County

- Beaver County Fairgrounds
- Sevier County Fairgrounds

Local Parks

- Elsinore Community Park
- Enterprise Baseball Fields
- Enterprise Heritage Park
- Enterprise Rodeo Grounds
- Joseph Community Park
- Milford Community Park
- Milford Heritage Park
- Milford Fairgrounds
- Minersville Community Park
- Richfield Baseball Fields
- Richfield Lions Park
- Richfield Community Park
- Rocky Ford Reservoir Park
- Sevier County Fairgrounds

National Historic Sites

- Mountain Meadows Massacre Site
- Cove Fort Historic Site
- Pine Valley Chapel
- Jens Larson Lime Kiln Interpretive Site

Other Recreation Sites

- Richfield Canal Trail
- Marysvale Canyon Trail
- Newcastle Reservoir
- Hamblin Historic Town Site
- Jefferson Hunt Memorial

Private

- Cove Fort Campground
- Flying U Campground
- J.R. Munchies Campground
- Richfield KOA
- Cove View Golf Course
- Milford Golf Course

E.1.2.4 Viewer Sensitivity

Viewer sensitivity pertains to the degree of concern for changes to the landscape as seen from a particular sensitive viewing location and is used to distinguish viewer impacts among Project alternatives (Section E.2). Viewer sensitivity considers concepts indentified in the BLM VRM system, but relate to viewers rather than the landscape (Section E.1.4.2). Viewer sensitivity ranged from high to moderate and was based on the following five criteria:

- viewing duration
- volume of use
- concern for aesthetics
- scenic or historic status
- type of use (travel routes, recreation areas, and residences)

Areas that have a high-use volume typically have a higher sensitivity or concern for changes in the landscape. Sensitive viewing locations that have a scenic or historic status (designations) typically are managed for aesthetics or a particular viewshed and therefore default to a high sensitivity. Special management areas, usually designated by federal agencies, have a high concern for aesthetics if visual resources were considered as part of the designation (i.e., areas of critical environmental concern [ACEC] designated based on high scenic quality versus an ACEC-designated for biological resources only). Visual sensitivity also will vary with each type of viewer (i.e., a primitive viewer versus a trail viewer within a national monument). Table E-2 summarizes the sensitive viewer assessment.

TABLE E-2 VIEWER SENSITIVITY LEVEL SUMMARY					
Area	View Duration	Use Volume	Aesthetic Concern	Designated Scenic/ Historic	Overall Sensitivity
Residences					
All Residences	Long	High	High	–	High
Travel Routes					
Interstate					
I-15	Short	High	Low	–	Moderate
I-70	Short	High	Low	–	Moderate
U.S. Highway					
U.S. 89	Short	High	Moderate	–	Moderate
Utah State Route					
SR 18	Short	High	Moderate	–	Moderate
SR 21	Short	High	Moderate	–	Moderate
SR 24	Short	High	Moderate	–	Moderate
SR 56	Short	High	Moderate	–	Moderate
SR 118	Short	High	Moderate	–	Moderate
SR 119	Short	High	Moderate	–	Moderate
SR 120	Short	High	Moderate	–	Moderate
SR 130	Short	High	Moderate	–	Moderate
SR 161	Short	High	Moderate	–	Moderate
SR 219	Short	High	Moderate	–	Moderate
SR 257	Short	High	Moderate	–	Moderate
SR 258	Short	High	Moderate	–	Moderate
Designated Scenic Routes					
Kimberly / Big John Road Scenic Backway (FR 113)	Moderate	Low	High	Scenic	High

**TABLE E-2
VIEWER SENSITIVITY LEVEL SUMMARY**

Area	View Duration	Use Volume	Aesthetic Concern	Designated Scenic/ Historic	Overall Sensitivity
Forest Service Roads					
FR 007 (access to Hardscrabble Trail)	Moderate	Moderate	Moderate	–	Moderate
FR 009 (access to Pinto)	Moderate	Moderate	Moderate	–	Moderate
FR 011 (access to Newcastle, Pinto, and Pine Valley)	Moderate	Moderate	Moderate	–	Moderate
FR 014 (access to Pinto Spring Trailhead)	Moderate	Low	Moderate	–	Moderate
FR 035 (access to Central and Pine Valley)	Moderate	High	High	–	High
FR 255 (access to Mill Canyon Trail)	Moderate	Low	Moderate	–	Moderate
FR 375 (access to Mountain Meadows Massacre Site)	Moderate	Moderate	High	–	High
FR 478 (access to Castle Rock Campground)	Moderate	Moderate	Moderate	–	Moderate
FR 565 (access to Water Canyon Trailhead)	Moderate	Low	Moderate	–	Moderate
Other Roads					
Baker Dam Campground Destination Route	Moderate	Moderate	Moderate	–	Moderate
Bench Road (access to Enterprise and Newcastle)	Moderate	Moderate	Moderate	–	Moderate
Beryl Milford Road (access to Beryl and Lund)	Moderate	Moderate	Moderate	–	Moderate
Clear Creek Canyon Road (access to Fremont Indian State Park)	Moderate	Moderate	High	–	High
Iron County Road 1740 (access to Three Peaks SRMA)	Moderate	Moderate	Moderate	–	Moderate
Lund Highway (access to Lund)	Moderate	Moderate	Moderate	–	Moderate
Rock Corral Recreation Area Destination Route	Moderate	Low	Moderate	–	Moderate
Parks, Recreation, and Special Management Areas					
National and Regional Trails					
Old Spanish Trail	Long	Low	High	Historic	High
Escalante Trail	Long	Low	High	Historic	High
American Discovery Trail	Long	Low	High	–	High
Paiute ATV Trail Network	Moderate	Moderate	Moderate	–	Moderate
BLM Recreation Sites					
Three Peaks Special Recreation Management Area	Long	Moderate	Moderate	–	Moderate
Baker Dam Campground	Long	Moderate	Moderate	–	Moderate
Baker Dam Reservoir	Moderate	Moderate	Moderate	–	Moderate
USFS Recreation Sites					
Pine Valley Mountain Wilderness	Long	Moderate	High	–	High

**TABLE E-2
VIEWER SENSITIVITY LEVEL SUMMARY**

Area	View Duration	Use Volume	Aesthetic Concern	Designated Scenic/ Historic	Overall Sensitivity
Fish Creek (Wild and Scenic Eligible)	Long	Low	High	–	High
Goat Spring Trail	Long	Low	High	–	High
Summit/Rock Springs Trail	Long	Moderate	High	–	High
Water Canyon Trail and Trailhead	Long	Moderate	High	–	High
Pinto Spring Trailhead (Paradise Trailhead)	Long	Moderate	High	–	High
Castle Rock Campground	Long	Moderate	Moderate	–	Moderate
Cemetery Trail and Trailhead	Long	Moderate	Moderate	–	Moderate
Hardscrabble Trail	Long	Low	Moderate	–	Moderate
Indian Hollow Spring Trail	Long	Low	Moderate	–	Moderate
Shinbone Trail	Long	Low	Moderate	–	Moderate
State Parks and Management Areas					
Fremont Indian State Park	Long	Moderate	High	–	High
Annabella Wildlife Management Area	Long	Low	Moderate	–	Moderate
Beaver County Wildlife Management Area	Long	Low	Moderate	–	Moderate
County Park and Fairgrounds					
Beaver County Fairgrounds	Long	Low	Moderate	–	Moderate
Sevier County Fairgrounds	Long	Low	Moderate	–	Moderate
Local Trails					
Marysvalle Canyon Trail	Long	High	Moderate	–	Moderate
Richfield Canal Trail	Long	High	Moderate	–	Moderate
Local Parks					
Elsinore Park	Long	Moderate	Moderate	–	Moderate
Enterprise Ball Fields	Moderate	Moderate	Moderate	–	Moderate
Enterprise Heritage Park	Moderate	Moderate	Moderate	–	Moderate
Enterprise Rodeo Grounds	Moderate	Moderate	Moderate	–	Moderate
Joseph Park	Long	Moderate	Moderate	–	Moderate
Milford Community Park	Long	Moderate	Moderate	–	Moderate
Milford Heritage Park	Long	Moderate	Moderate	–	Moderate
Milford Fairgrounds	Long	Low	Moderate	–	Moderate
Minersville Community Park	Long	Moderate	Moderate	–	Moderate
Richfield Ball Fields	Moderate	Moderate	Moderate	–	Moderate
Richfield Lions Park	Long	Moderate	Moderate	–	Moderate
Richfield Park	Long	Moderate	Moderate	–	Moderate
Rocky Ford Reservoir Park	Long	Low	Moderate	–	Moderate
Other Sites					
Pine Valley Chapel	Long	Moderate	Moderate	Historic	High
Cove Fort Historic Site	Long	High	High	Historic	High
Jens Larson Lime Kiln Interpretive Site	Long	Low	Moderate	Historic	High
Mountain Meadows Massacre Site	Long	Moderate	High	Historic	High
Snow College-Richfield Campus	Moderate	High	Low	–	Moderate
Cove Fort Campground	Long	Moderate	Moderate	–	Moderate

**TABLE E-2
VIEWER SENSITIVITY LEVEL SUMMARY**

Area	View Duration	Use Volume	Aesthetic Concern	Designated Scenic/ Historic	Overall Sensitivity
Flying U Campground	Long	Moderate	Moderate	–	Moderate
J.R. Munchies Campground	Long	Moderate	Moderate	–	Moderate
Richfield KOA	Long	Moderate	Moderate	–	Moderate
Cove View Golf Course	Long	Moderate	Moderate	–	Moderate
Milford Golf Course	Long	Low	Moderate	–	Moderate
Hamblin Town Site	Long	Low	Moderate	–	Moderate
Jefferson Hunt Memorial (Old Spanish Trail)	Moderate	Low	Moderate	–	Moderate
Newcastle Reservoir	Long	Moderate	Moderate	–	Moderate

E.1.3 BLM Visual Resource Inventory Components

Pursuant to the Federal Land Policy and Management Act (FLPMA), the BLM is required to consider scenic values of public lands as a resource that merits management and preservation, as determined through the land use planning process. As a response to the FLPMA, the BLM devised the VRM system, with the primary objective of managing public lands in a manner that will protect the quality of the scenic (visual) values of these lands (Information Bulletin No. 98-135). In this regard, the VRM system (BLM Handbook H-8410-1) provides guidance relating to the Visual Resource Inventory (VRI) methodology that the BLM applies to inventory scenic values, as well as assess potential effects on such resources based on the analysis of visual contrast.

Consistent with procedures and concepts described above, VRI data were collected and/or developed when appropriate per BLM Handbook H-8410-1 (Visual Resource Inventory). The primary VRI includes scenic quality, distance zones, and visual sensitivity, which are combined to develop VRI Classes, and described below.

E.1.3.1 Scenic Quality

Scenic quality is a measure of the aesthetic value of landscape scenery based on analysis of landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. The size of Scenic Quality Rating Units (SQRUs) may vary from several thousand acres to one hundred or less acres, depending on the homogeneity of the landscape features and the detail desired in the inventory. Generally, landscapes with a greater diversity of these features receive a higher scenic quality rating.

On BLM lands, scenic quality was provided by the Fillmore, Cedar City, and St. George Field Offices. Scenic quality for the Richfield Field Office was inventoried as part of the Project level assessment as described above.

E.1.3.2 Sensitivity Level Rating Units

SLRUs determine the level of concern the public would express toward modifications in the landscape. They are defined by the types of users, amount of use, public interest, adjacent land uses, special management areas, and other factors (BLM 1986). The BLM has assigned land a high, medium, or low

sensitivity level. These units often share a boundary with SQRUs, but can be split based upon a change in one of the factors listed above.

On BLM lands, SLRUs were provided by the Cedar City Field Office and St. George Field Offices. In these field offices within the visual resource study area, sensitivity ranges from low to high. Developed recreation sites, historic sites, and areas adjacent to these sites generally possess a high sensitivity; moderate sensitivity areas are located primarily in mountainous terrain with dispersed recreation; and low sensitivity occurs in areas with little topographic relief and recreation. The Richfield and Fillmore Field Offices did not have this data. For the purpose of this Project level study, SLRUs were inventoried through the description of sensitive viewers (Section E.1.2.4).

E.1.3.3 Distance Zones

Distance zones are subdivided areas of the landscape, based on the perception of scenery from viewing locations. Detail in the landscape, or objects being viewed depend on the proximity to the viewers. The BLM uses three distance zones for the purposes of VRI, which are primarily based on how landscapes are viewed. The three distance zones are foreground-middleground, background, and seldom seen. The foreground-middleground distance zone includes areas seen from highways, rivers, or other viewing locations that are less than 5 miles away. Areas seen beyond the foreground-middleground distance zone, but less than 15 miles away are in the background zone. Areas not seen within the foreground-middleground or background distance zones are in the seldom seen distance zone.

On BLM lands, distance zones were provided by the Cedar City and St. George Field Offices. The Richfield and Fillmore Field Offices did not have this data. A project level analysis of distance zones, as part of the sensitive viewer study, was conducted to describe distance zones in these field offices.

E.1.4 Federal Agency Visual Management Objectives

E.1.4.1 Bureau of Land Management

BLM-administered public land in the study area is managed under the Richfield Field Office RMP, Cedar/Beaver/Garfield/Antimony RMP (CBGARMP), Warm Springs Resource Area RMP (WSRMP), and St. George Field Office RMP. The study area is predominately designated as VRM Class IV. Limited occurrences of VRM Class III designated lands would be traversed by the Project. Class III lands are located along the east side of the Pahvant Range, through the Mineral Mountains, and south of the Red Butte Substation.

E.1.4.2 U.S. Forest Service

Forest Service-administered land in the study area is managed under the Fishlake Land and Resource Management Plan (LRMP) and Dixie LRMP (and amendments). The SIO data for the Fishlake National Forest is draft, but will be used to determine compliance for the Project as directed by the USFS. The Project primarily crosses Moderate SIO-designated lands associated with the Fishlake National Forest designated utility window along I-70. SIO data for the Dixie National Forest were prepared as part of the Project (see Dixie National Forest SIO Report included at the end of Appendix F). Based on the SIO analysis, the Project would traverse primarily high SIO-designated lands. Moderate SIOs were primarily designated adjacent to SR 18.

E.2 Impact Methodology

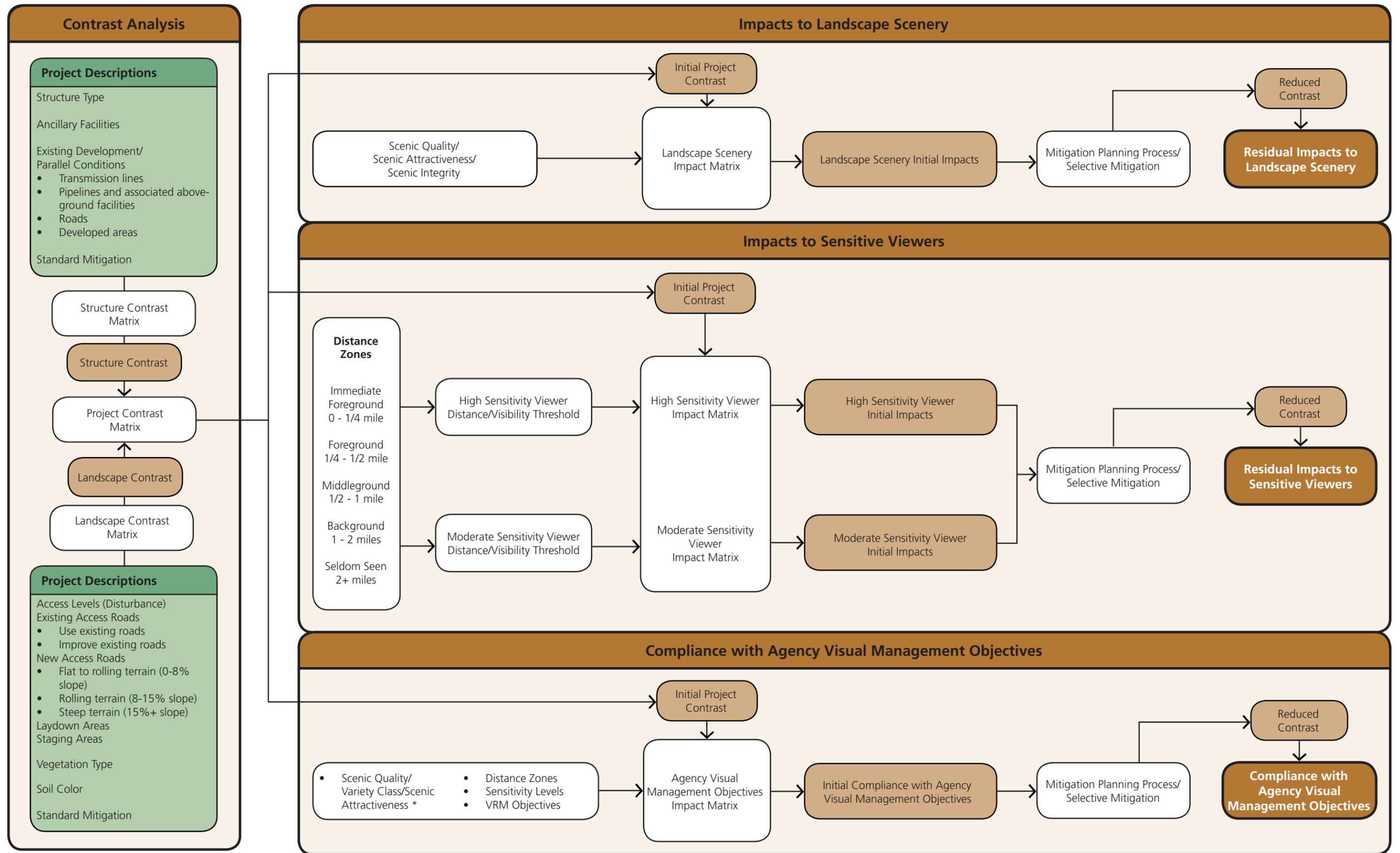
The methodology used to identify and characterize impacts considered is consistent with the BLM VRM system and USFS SMS systems. Contrast, or the level of visual change, was measured in the context of landscape scenery, sensitive viewers, and compliance with established visual agency management objectives (Figure E-3).

E.2.1 Contrast

The visual contrast assessment was performed by evaluating visual elements (form, line, color, and texture) in the existing landscape with the visual elements associated with the proposed Project, including new transmission structures and conductors, partial clearing of the right-of-way depending on vegetation community, and the construction of permanent access roads. In this regard, landform, vegetation, and structural elements of the landscape were assessed in conjunction with the Project and assigned degrees of change/contrast, ranging from strong, moderate/strong, moderate, weak/moderate, or weak, as defined below:

- Strong – contrast demands attention and strongly dominates the landscape
- Moderate/Strong – contrast begins to demand attention and is still moderately dominant in the landscape
- Moderate – contrast attracts attention but is co-dominant in the landscape
- Weak/Moderate – contrast begins to attract attention and is moderately subordinate in the landscape
- Weak – contrast can be seen but is subordinate in the landscape

The contrast analysis for the Project considered the visual elements of form, line, color, and texture associated with existing vegetation communities, landform (i.e., slope and topographic variation), and existing utility infrastructure within the Project area. Using aerial imagery, vegetation data, soils data, and information gathered during initial field investigations, changes to landform and vegetation (landscape contrast) and the introduction of structures to the landscape (structure contrast) resulting from the Project were assessed and mapped (digitized accordingly). Using GIS, landscape and structure contrast were combined into a project contrast model that served as a baseline of landscape change (contrast) along each alternative in its entirety. Using GIS, project contrast was combined with scenic quality/scenic attractiveness rating to assess impacts on scenery. Similarly, project contrast was combined with the visibility analysis associated with sensitive viewers to determine impacts associated with sensitive viewers. Consistent with VRM Handbook 8431-1 – Visual Resource Contrast Rating, using worksheet 8400-1, contrast ratings were performed from each agency-approved KOP during field investigations to verify the impact model and document visual contrast resulting from the Project. These contrast ratings also were used to assess VRM class conformance for BLM-administered public lands. Applying this methodology resulted in a consistent characterization and documentation of visual resource impacts across all alternative routes being assessed for the Project.



Sigurd to Red Butte No. 2
345kV Transmission Project
Figure E-3 Visual Impact Model

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E.2.1.1 Landscape Contrast

Landscape contrast was identified by evaluating access levels with vegetation cover (Table E-3). An access model was developed for the Project that estimated required road construction, which would result in permanent disturbance (access levels). Access levels (1, 2, 3, 4, or 5) were assigned along the Project reference centerline (see Chapter 2 for detailed information on access levels) and verified during field investigations as appropriate.

TABLE E-3 LANDSCAPE CONTRAST MATRIX					
Vegetation Component	Access Level				
	1 Use Existing Access	2 Improve Existing Access	3 New Access (0 to 8 percent slopes)	4 New Access (8 to 15 percent slopes)	5 New Access (+15 percent slopes)
Group 1: grassland, sagebrush, and agriculture (vegetation under 12 feet)	Weak	Weak	Weak	Weak/ Moderate	Moderate
Group 2: pinyon-juniper and woodland (vegetation over 12 feet)	Weak	Weak/ Moderate	Weak/ Moderate	Moderate	Moderate/ Strong

E.2.1.2 Structure Contrast

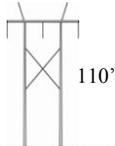
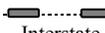
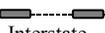
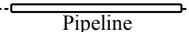
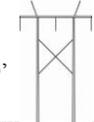
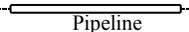
Structure contrast was determined based on the visual characteristics of the proposed structures compared to the visual characteristics of the existing corridor, including form, line, and color. Based on the proposed structures (H-frame self-weathering steel), moderate/strong structure contrasts would result from the introduction of transmission line structures in areas where none are currently present, and weak structure contrasts would result from the introduction of transmission line structures where similar ones already exist. Table E-4 on the following pages provides the results of the structure contrast assessment.

E.2.1.3 Project Contrast

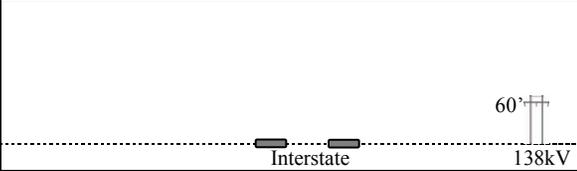
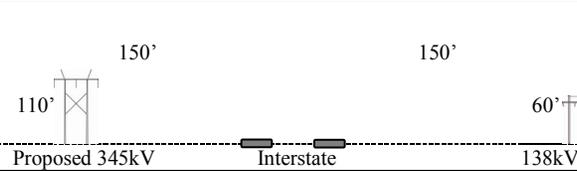
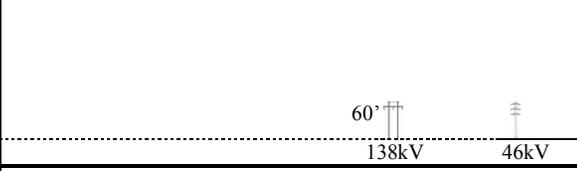
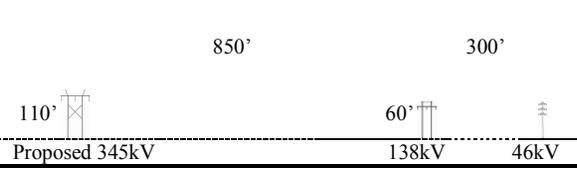
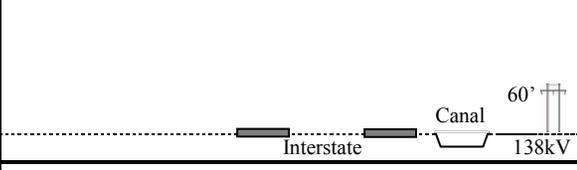
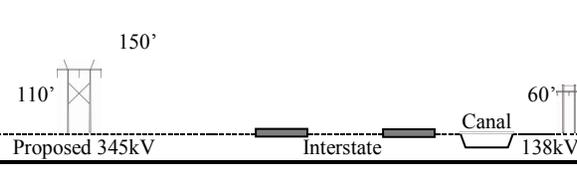
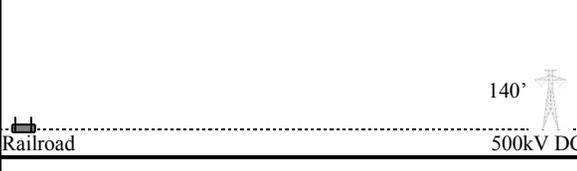
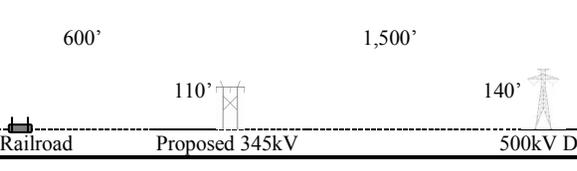
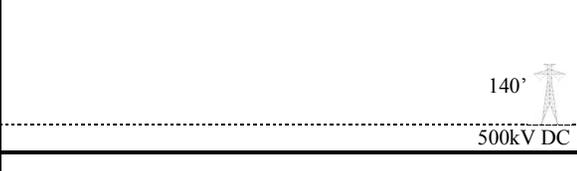
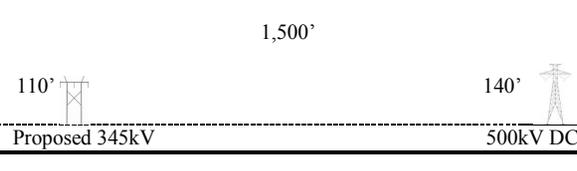
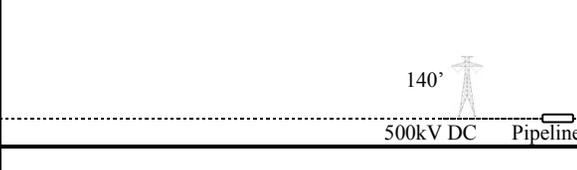
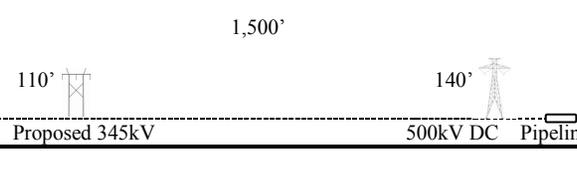
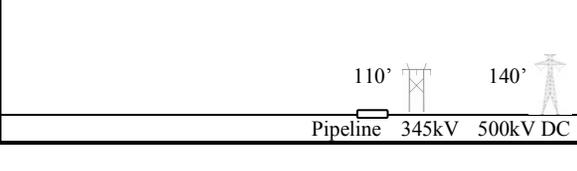
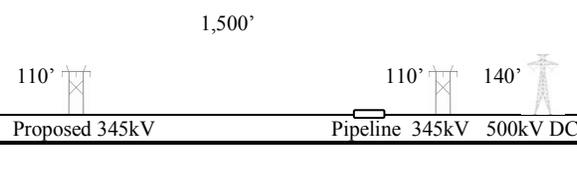
Landscape and structure contrast were combined using GIS to identify and map project contrast for all alternatives (Table E-5). In that regard, project contrast provides the foundation for impact assessment of the Project based on concepts consistent with the VRM and SMS systems.

TABLE E-5 PROJECT CONTRAST MATRIX				
Structure Contrast	Landscape Contrast			
	Weak	Weak/Moderate	Moderate	Moderate/Strong
Weak	Weak	Weak	Weak/Moderate	Moderate
Weak/Moderate	Weak/Moderate	Weak/Moderate	Moderate	Moderate
Moderate	Weak/Moderate	Moderate	Moderate	Moderate/Strong
Moderate/Strong	Moderate	Moderate	Moderate/Strong	Moderate/Strong

**TABLE E-4
STRUCTURE CONTRAST**

Number	Landscape Unit	Existing Corridor	Proposed Corridor	Structure Contrast			
				Form	Line	Color	Overall
1	Sagebrush Basin Sagebrush Valley Foothills Clear Creek Canyon Pahvant Range Tushar Mountains Juniper Hills Atchinson Mountains Bull Valley Mountains	None	 Proposed 345kV	M/S	M/S	M/S	M/S
2	Sagebrush Valley	 Interstate	800'  Proposed 345kV  Interstate	M/S	M/S	M/S	M/S
3	Sagebrush Basin Foothills	 Pipeline	1,500'  Proposed 345kV  Pipeline	M/S	M/S	M/S	M/S
4	Sagebrush Basin Foothills	 Pipeline	 Proposed 345kV  Pipeline	M/S	M/S	M/S	M/S
5	Sagebrush Basin	 Industry	1,500'  Proposed 345kV  Industry	M/S	M/S	M	M/S
6	Mineral Mountains Juniper Hills	 46kV	 Proposed 345kV  46kV	M/S	M	M/S	M/S

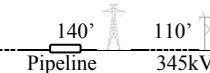
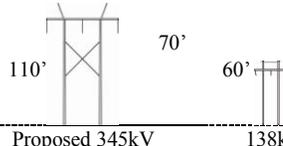
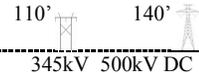
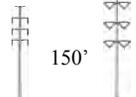
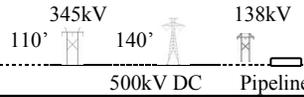
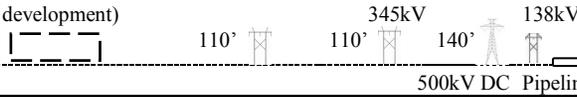
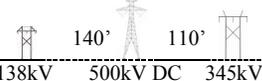
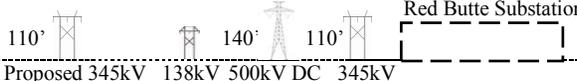
**TABLE E-4
STRUCTURE CONTRAST**

Number	Landscape Unit	Existing Corridor	Proposed Corridor	Structure Contrast			
				Form	Line	Color	Overall
7	Sagebrush Valley			M	M	M/S	M
8	Sagebrush Valley			M	M	M/S	M
9	Sagebrush Valley			M	W/M	M/S	M
10	Sagebrush Basin			M/S	M	W/M	M
11	Sagebrush Basin			M/S	M	W/M	M
12	Sagebrush Basin			M/S	M	W/M	M
13	Foothills Sagebrush Basin			W/M	M	M	W/M

**TABLE E-4
STRUCTURE CONTRAST**

Number	Landscape Unit	Existing Corridor	Proposed Corridor	Structure Contrast			
				Form	Line	Color	Overall
14	Sagebrush Valley			W/M	W/M	M	W/M
15	Sagebrush Valley			W/M	W/M	M	W/M
16	Pahvant Range Tushar Mountains			W/M	W/M	M	W/M
17	Sagebrush Basin Foothills Atchinson Mountains			W/M	W/M	M	W/M
18	Sagebrush Basin Foothills			W/M	W/M	M	W/M
19	Sagebrush Basin Foothills			W/M	W/M	M	W/M
20	Foothills Sagebrush Basin			W/M	W/M	M	W/M

**TABLE E-4
STRUCTURE CONTRAST**

Number	Landscape Unit	Existing Corridor	Proposed Corridor	Structure Contrast			
				Form	Line	Color	Overall
21	Foothills Sagebrush Basin	500kV DC 	1,500' 500kV DC 	W/M	W/M	M	W/M
22	Juniper Hills Tushar Mountains Clear Creek Canyon	60'  138kV	110' 70' 60'  Proposed 345kV 138kV	W/M	W/M	M	W/M
23	Sagebrush Basin	110' 140'  345kV 500kV DC	1,500'  110' 140'	W/M	W/M	M	W/M
24	Juniper Hills Sagebrush Basin	150' 	110' 120' 150' 	W/M	W	W	W
25	Sagebrush Valley	(Immediately adjacent to Sigurd Substation and nearby lines)  110'	≈1,200'  Proposed 345kV	W/M	W	W	W
26	Foothills (In proximity to the Red Butte Substation and suburban development)	345kV 138kV  110' 140' 138kV 500kV DC Pipeline	600'  110' 110' 140' 138kV 500kV DC Pipeline	W	W	W	W
27	Foothills (In proximity to the Red Butte Substation)	138kV 140' 110'  138kV 500kV DC 345kV	110' 140' 110'  Proposed 345kV 138kV 500kV DC 345kV	W	W	W	W

NOTES: M/S = Moderate/Strong M = Moderate W/M = Weak/Moderate W = Weak

E.2.2 Impacts on Landscape Scenery

To determine landscape scenery impacts, project contrast (Section E.2.1.3) was evaluated in context with inventoried landscapes (and associated scenic quality ratings) that would be crossed by the Project (Table E-6). Developed landscapes (i.e., commercial, industrial, etc.) do not have a scenic quality rating and therefore were not evaluated from a scenery standpoint. After initial impacts on landscape scenery were determined, selective mitigation was applied for residual impact analysis. For example, if a section of moderate project contrast crosses a Class B landscape, the initial impact on landscape scenery would be moderate. After employing appropriate mitigation measures, residual impacts on landscape scenery would be reduced to a low/moderate level based upon a decrease in project contrast.

TABLE E-6 LANDSCAPE SCENERY MAP IMPACT MATRIX				
Scenic Quality Rating	Project Contrast			
	Weak	Weak/Moderate	Moderate	Moderate/Strong
A	Low/Moderate	Moderate	Moderate	Moderate/High
B	Low/Moderate	Low/Moderate	Moderate	Moderate
C	Low	Low/Moderate	Low/Moderate	Moderate

E.2.3 Project Visibility Thresholds and Viewing Conditions

For this Project, a review of previous studies in similar geographical, topographical, and environmental settings was performed, and relevant Project visibility thresholds were established for 345kV transmission line facilities and related access roads (Jones and Jones 1976). Typical height for the proposed 345kV (H-frame and lattice) towers is between 80 and 140 feet and was assumed at 110 feet for analysis. Permanent access roads were assumed to be 14 feet wide.

Visibility thresholds for the purpose of the Project are presented in Table E-7

TABLE E-7 VISIBILITY THRESHOLDS	
Visibility Threshold	345kV Transmission Line (miles)
Immediate Foreground	0 to 0.25
Foreground	0.25 to 0.5
Middleground	0.5 to 1.0
Background	1.0 to 2.0
Seldom Seen	Beyond 2.0

Viewing conditions are associated with the viewer’s orientation, screening, and backdropping of the proposed Project. Viewer orientation includes inferior (below), level, and superior (above) in relation to the Project. Screening ranges between minimally, partially, and completely screened, which reflects the degree in which elements in the landscape, such as vegetation and topography, inhibit the visibility of the Project. Views can also be skylined or backdropped by adjacent terrain, vegetation, or structures. When the Project is backdropped, the color, texture, and form of the Project components may often be subdued or absorbed into the contextual landscape, reducing the visibility of the Project.

E.2.4 Impacts on Sensitive Viewers

Initial sensitive viewer impacts were determined by evaluating Project visibility thresholds (Section E.2.3) for moderate and high sensitivity viewers with project contrast. Initial impacts were verified and documented as appropriate during field investigations and revised as needed (Tables E-8 and E-9). Selective mitigation measures also were employed in the context of initial sensitive viewer impacts, which would reduce initial impacts. Sensitive viewer impacts also were verified using visual simulations based on agency approved KOPs (see Appendix G for visual simulations).

TABLE E-8 HIGH SENSITIVITY VIEWER IMPACT MATRIX				
Project Visibility Thresholds (miles)	Project Contrast			
	Weak	Weak/Moderate	Moderate	Moderate/Strong
0 to 0.25	Low/Moderate	Moderate	Moderate	Moderate/High
0.25 to 0.5	Low/Moderate	Moderate	Moderate	Moderate/High
0.5 to 1.0	Low/Moderate	Low/Moderate	Moderate	Moderate
1.0 to 2.0	Low	Low/Moderate	Low/Moderate	Moderate
Over 2.0	Low	Low	Low/Moderate	Low/Moderate

TABLE E-9 MODERATE SENSITIVITY VIEWER IMPACT MATRIX				
Project Visibility Thresholds (miles)	Project Contrast			
	Weak	Weak/Moderate	Moderate	Moderate/Strong
0 to 0.25	Low	Low/Moderate	Low/Moderate	Moderate
0.25 to 0.5	Low	Low/Moderate	Low/Moderate	Moderate
0.5 to 1.0	Low	Low	Low/Moderate	Low/Moderate
1.0 to 2.0	Low	Low	Low	Low/Moderate
Over 2.0	Low	Low	Low	Low/Moderate

E.2.5 Visual Resource Management Compliance

E.2.5.1 VRM Class Compliance – BLM

Compliance with VRM classes and their associated objectives was based on anticipated change in the landscape (project contrast) to existing landscape conditions as seen from agency-approved KOPs. A moderate/strong project contrast would comply with designated VRM Class IV lands because “the level of change to the characteristic landscape can be high,” or management activities may contrast *strongly* with the existing character of the landscape. Similarly, in a Class III Objective VRM area, change to the characteristic landscape should be moderate; therefore, *moderate* project contrast resulting from management activities (the Project) would be compliant. VRM class compliance was documented using form 8400-4 - Visual Contrast Rating Worksheet.

E.2.5.2 SIO Compliance - USFS

Consistency with designated SIOs was based upon an evaluation of project contrast in terms of SIO designations. Minimum levels of scenic integrity for a given landscape are defined by forest planning documents and the comparison of project contrast with these minimum levels was used to determine compliance with the forest plan.

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Scenic Quality Rating Sheets (BLM)

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DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 1 Pahvant Range SQ Rating: B

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Richfield	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

The Pahvant Range has layers of undulating lines that become more jagged on the highest peaks. Vegetation consists of pinyon-juniper at the base of the range and transitions to alpine vegetation on the high summits. Textures range from coarse textured escarpments on the east side of the mountains to medium textures where dense juniper and deciduous trees occur. There are several perennial streams within this landscape, but are not noticeable through most of the unit. Color diversity is high due to the range of greens in the vegetation, reds and greys in the exposed rocks, and the white snowcapped peaks. There is fall seasonal color change in the higher elevations within the aspens and other deciduous trees. The undulating form of these mountains contrast with the adjacent flat valley/basins which enhance the contrast between the two landscapes. This landscape is distinct but typical for the two physiographic sections it crosses; Great Basin and High Plateaus of Utah. There are few cultural modifications except for campgrounds, trails, and access roads.

3. Score

	Rating	Rationale
a. Landform	4	Undulating to jagged mountains
b. Vegetation	3	Pinyon-juniper to alpine
c. Water	1	Several perennial streams but not noticeable
d. Color	4	High variety and seasonal variation
e. Adjacent Scenery	3	Flat basins
f. Scarcity	3	Typical for region
g. Cultural Modification	0	Gravel roads and recreation
Total	18	B

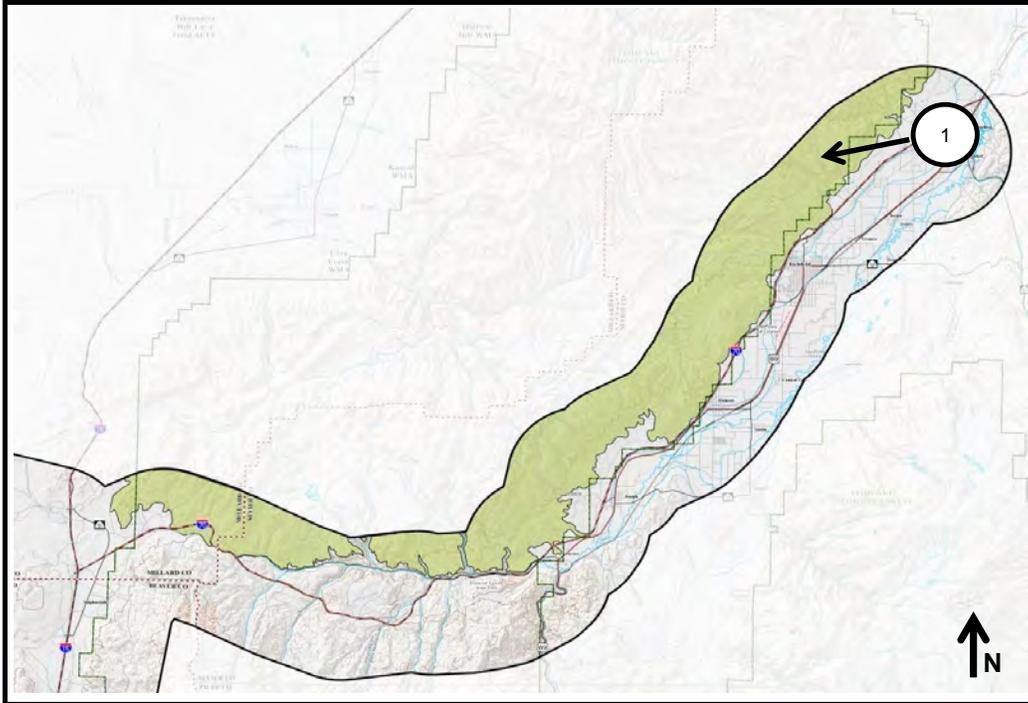
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Steep	Scattered	N/A
Line	Undulating to jagged	Horizontal	N/A
Color	Red, grey, tan	Greens and tans	N/A
Texture	Rough	Moderate	N/A

5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 1 Views from Interstate 70

Date:	Time:	Location:	
11/10/2009	12:54	38.840139	-112.023202





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 2 Tushar Mountains SQ Rating: B

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Richfield, Fillmore, and Cedar City	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

The forms created by the highest peaks are jagged, while the majority of the mountains create undulating forms. Vegetation is diverse, which changes with altitude, from pinyon-juniper, mountain brush, fir, and spruce to aspen. Textures range from coarse, scattered junipers to medium textured deciduous trees, fine textured grasses, and snow fields. Water in this landscape consists of mountains, which remain snowcapped for a majority of the year, and numerous perennial streams flowing through the landscape. These streams are not noticeable in the majority of the landscape. Color contrast is high due to the variety of greens in the vegetation, tans in the exposed soil and rocks, white snowcapped peaks, and seasonal color in the fall. These mountains create a prominent form, which is increased by the indistinct adjacent basin. This landscape is unique for the area but common within the regional area. Cultural modifications include access roads, trails, and campgrounds.

3. Score

	Rating	Rationale
a. Landform	4	Prominent range
b. Vegetation	3	Pinyon-juniper, oak, fir, spruce, aspen
c. Water	1	Perennial streams, not noticeable in the majority of landscape
d. Color	4	Variety of greens, seasonal color
e. Adjacent Scenery	3	Flat basins
f. Scarcity	3	Unique for area but common in region
g. Cultural Modification	0	Gravel roads and recreation
Total	18	B

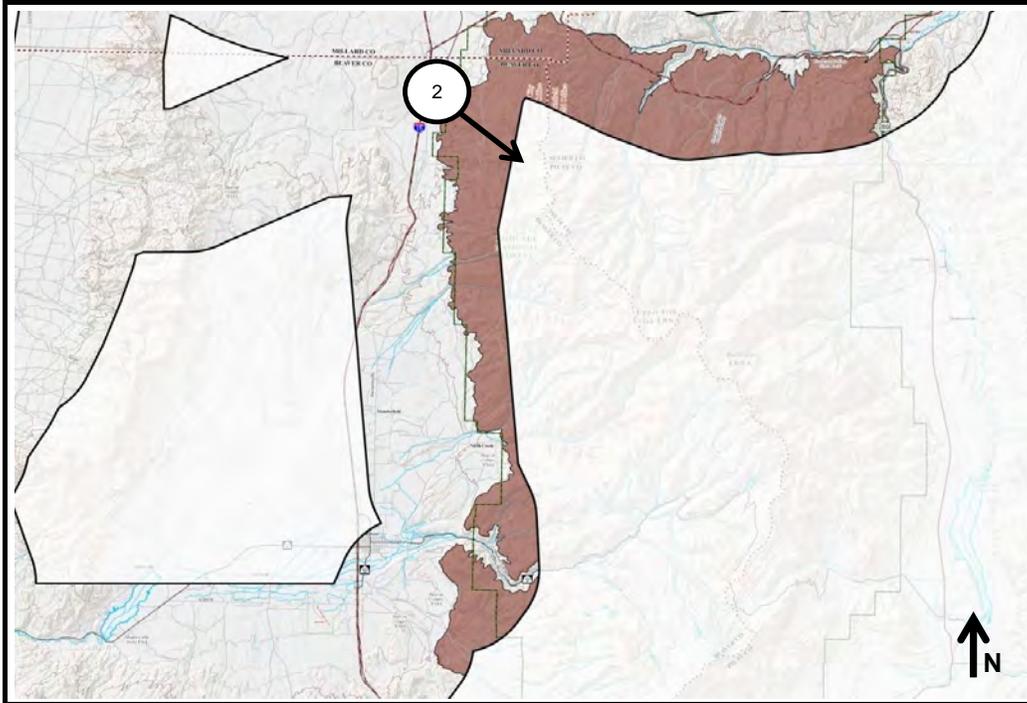
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Rugged	Dense, irregular	N/A
Line	Bold	Horizontal	N/A
Color	Tans and white	Tans and greens	N/A
Texture	Rough	Moderate	N/A

5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 2 Views from road parallel to Interstate 15

Date:	Time:	Location:	
11/17/2009	14:11	38.53096	-112.60543





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 3 Mineral Mountains SQ Rating: B

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Cedar City and Fillmore	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

The Mineral Mountains are a rugged and highly eroded landform that lie in the northeast portion of Beaver County and the southeastern corner of Millard County. Vegetation transitions from sagebrush at the lower elevations, to pinyon-juniper on high elevations with oak communities on the higher peaks. The spring thaw creates several streams within this landscape unit, but this introduction of water is brief. Color contrast is moderate with white rock outcroppings, a variety of greens in the vegetations, and tans in the exposed soils. The form of the mountains is also defined further by the flat basins, which make this landscape appear even steeper. The ruggedness of these mountains make them unique for the area, but their overall character is common in the Great Basin. Cultural modifications include access roads and recreation.

3. Score

	Rating	Rationale
a. Landform	4	Rugged mountains, highly eroded
b. Vegetation	3	Sage/grass, pinyon/juniper, oak
c. Water	1	Minor streams and a few springs
d. Color	3	White rock, variety of greens, tans
e. Adjacent Scenery	3	Flat basins
f. Scarcity	3	Unique for area but common in region
g. Cultural Modification	0	Gravel roads and recreation
Total	17	B

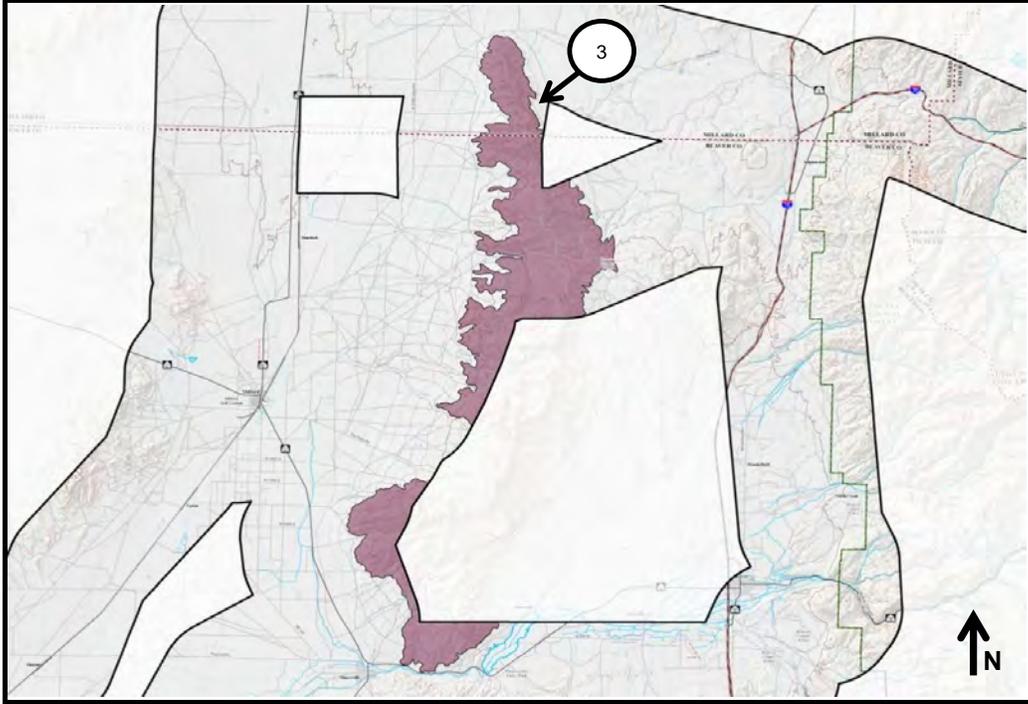
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Jagged	Irregular and patchy	N/A
Line	Bold	Horizontal	N/A
Color	Tans and white	Tans and greens	N/A
Texture	Rough	Moderate	N/A

5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 3 Views from Black Rock Road

Date:	Time:	Location:	
11/11/2009	13:00	38.635653	-112.771306





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 4 Sagebrush Valley SQ Rating: C

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Richfield	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

This landscape is defined by the flat terrain, which slopes upward to meet adjacent landforms. Vegetation is dominated by sagebrush, with isolated patches of grasses and isolated junipers along the perimeter. There is little influence of surface water in the landscape except for periods of snow cover in the winter. Color variety is low since there is little contrast between the tans and greens in the landscape. The horizontal form of this landscape is defined and enhanced by adjacent mountains and plateaus. This landscape is common within the High Plateaus of Utah. Cultural modifications include range improvements, roads, scattered residences, and oil and gas facilities.

3. Score

	Rating	Rationale
a. Landform	1	Flat terrain, little topographic relief
b. Vegetation	2	One dominant vegetation, some variety at margins
c. Water	0	Little influence
d. Color	2	Seasonal change, monotone in summer
e. Adjacent Scenery	3	Mountains and plateaus
f. Scarcity	2	Common
g. Cultural Modification	0	Roads, grazing, isolated areas of industry
Total	10	C

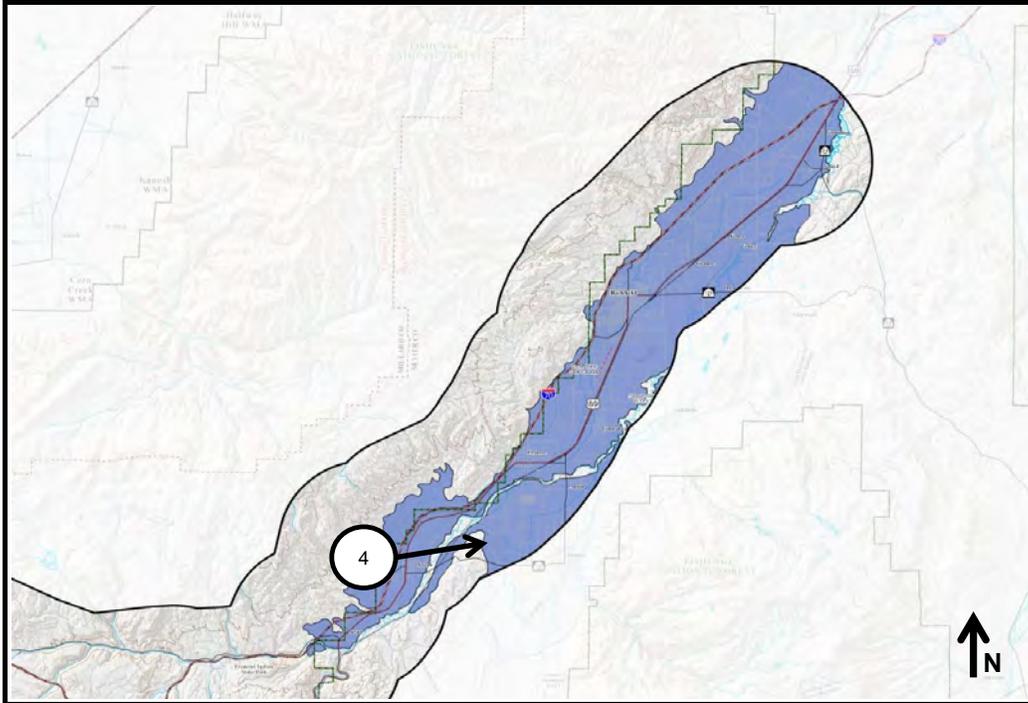
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Sloping, flat	Uniform	Fencing
Line	Horizontal	Horizontal	Straight
Color	Tans	Pale greens, tans	Tan & grey
Texture	Smooth	Moderate	Moderate

5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 4 Views from Joseph Mountain Road

Date:	Time:	Location:	
11/10/2009	15:08	38.628555	-112.243535





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 5 **Sagebrush Basin** **SQ Rating: C**

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Cedar City, Fillmore, and St. George	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

This landscape is defined by flat, horizontal form, which begins to lift at the edges as it transitions to adjacent landforms. Though vegetation is generally dominated by big sagebrush, grasses are interspersed throughout and often dominate pasture lands. Additionally, junipers are occasionally scattered at the edge of this landscape at its interface with adjacent foothill and mountain landscapes. There is little influence of water in this landscape except for snow cover in the winter. Color contrast, largely created by vegetation, is low with a mixture of greens, grey-greens, and browns (when grasses go dormant). The largely horizontal form of this landscape is defined and enhanced by adjacent foothill and mountain landscapes. This landscape is common within the Basin and Range. Cultural modifications found within the landscape include access roads, scattered homes, and ranching operations.

3. Score

	Rating	Rationale
a. Landform	1	Flat, horizontal
b. Vegetation	2	Sagebrush, grasses, and desert scrub
c. Water	0	Little influence
d. Color	2	Weak contrast in tans and greens
e. Adjacent Scenery	3	Mountains and foothills
f. Scarcity	2	Common
g. Cultural Modification	0	Ranching, homes, roads
Total	10	C

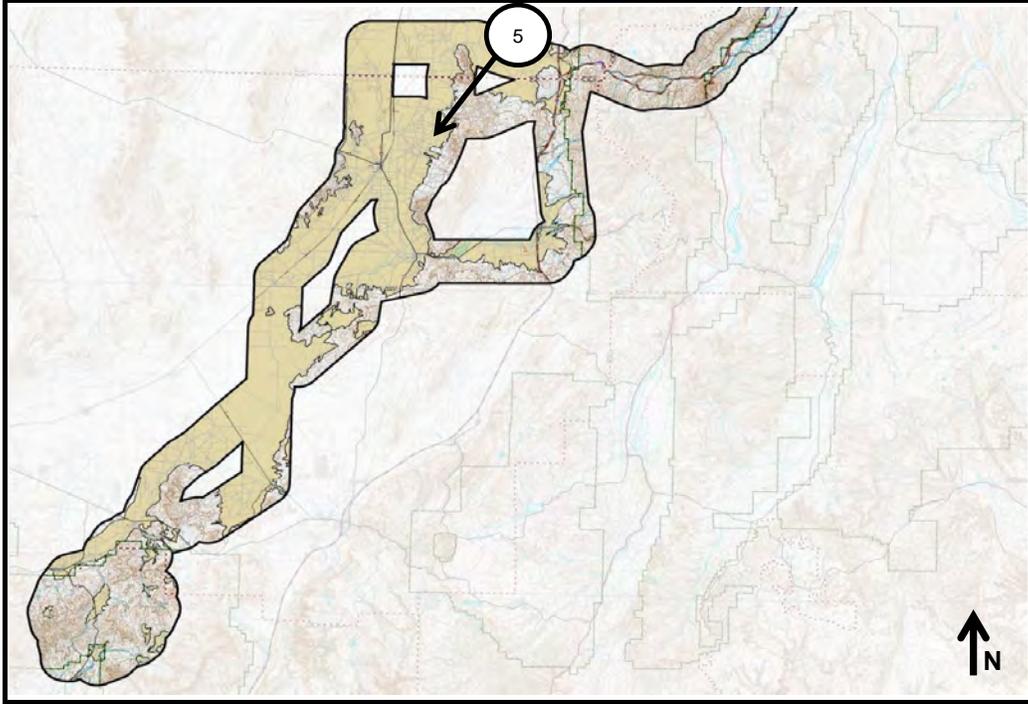
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Flat	Low, uniform	Fencing
Line	Horizontal	Horizontal	Straight
Color	Tans	Tans and greens	Tan and grey
Texture	Smooth	Moderate	Moderate

5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 5 Views from Black Rock Road

Date:	Time:	Location:	
11/11/2009	13:00	38.635372	-112.771051





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 6 Sevier River SQ Rating: B

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Richfield	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

The Sevier River creates an undulating line as it winds through the surrounding sagebrush-dominated basin landscape. Vegetation is moderately complex with riparian plants occupying the river edge, and sagebrush and grasses occurring away from the water. The character of this landscape is focused on the presence of surface water, which directly modifies the vegetation types along its banks. Color contrast is expressed through a moderate variety of greens within riparian and surrounding vegetation, reds occurring seasonally in the stems of riparian vegetation, tans and browns in the soil and rocks, and blue-green water. The adjacent basin and mountains increase the quality of this landscape. The Sevier River is a river of uncommon size within the region and is a unique landscape. Cultural modifications include roads, residences, canals, and bridge crossings of the river.

3. Score

	Rating	Rationale
a. Landform	1	Flat floodplain around river
b. Vegetation	2	Riparian vegetation including cottonwoods and dogwoods
c. Water	4	Major river for region
d. Color	3	Variety of color, seasonal change
e. Adjacent Scenery	3	Mountains on either side
f. Scarcity	4	Unique in region
g. Cultural Modification	0	Bridges crossing unit
Total	17	B

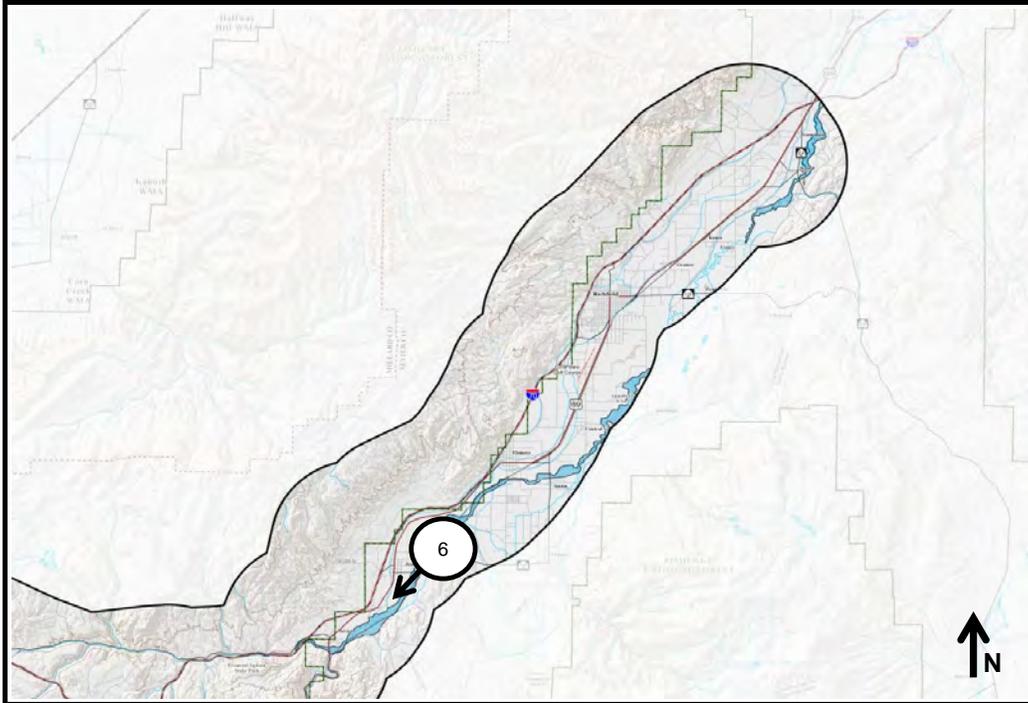
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Flat	Vertical and layered	N/A
Line	Horizontal	Irregular, broken	N/A
Color	Blues and tans	Greens, reds, tans	N/A
Texture	Smooth	Moderate	N/A

5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 6 Views from SR 118

Date:	Time:	Location:	
11/10/2009	15:29	38.624688	-112.205911





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 8 Marysvale Canyon SQ Rating: A

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Richfield	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

The forms created by the canyon walls are bold and prominent, which contrasts with smooth, curving form created by the Sevier River. Vegetation consists of grasses, junipers, and riparian plants. Textures range from coarse texture on the canyon walls, to fine textured grasses along the river moderately coarse cottonwoods and other riparian plants. The influence of the river is dramatic as the canyon walls are dry with grasses, sagebrush, and junipers, while the area adjacent to the river contains a variety of riparian vegetation. Color contrast is moderate due to the variety of greens in the vegetation, the blue-green water, and tans and reds in the rocks. The adjacent mountains increase the drama within this landscape and improve the scenic quality. This landscape is typical in the region but has a higher quality than more common canyon landscapes. Cultural modifications include US 89, residences, and a non-motorized trail which follows an old rail line.

3. Score

	Rating	Rationale
a. Landform	4	Steep canyon walls
b. Vegetation	3	Grasses, juniper, riparian plants
c. Water	4	Fast flowing river with rapids
d. Color	3	Greens in vegetation, tans and reds in rock and soil
e. Adjacent Scenery	3	Mountains
f. Scarcity	3	Typical but not common
g. Cultural Modification	0	Highway, residences, recreation
Total	20	A

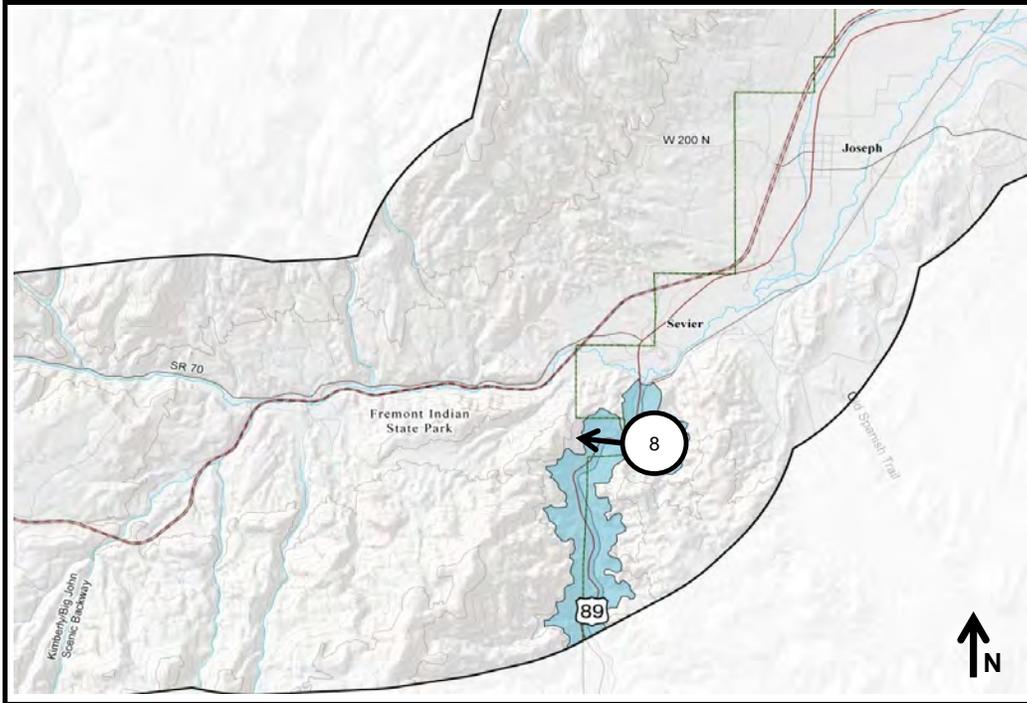
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

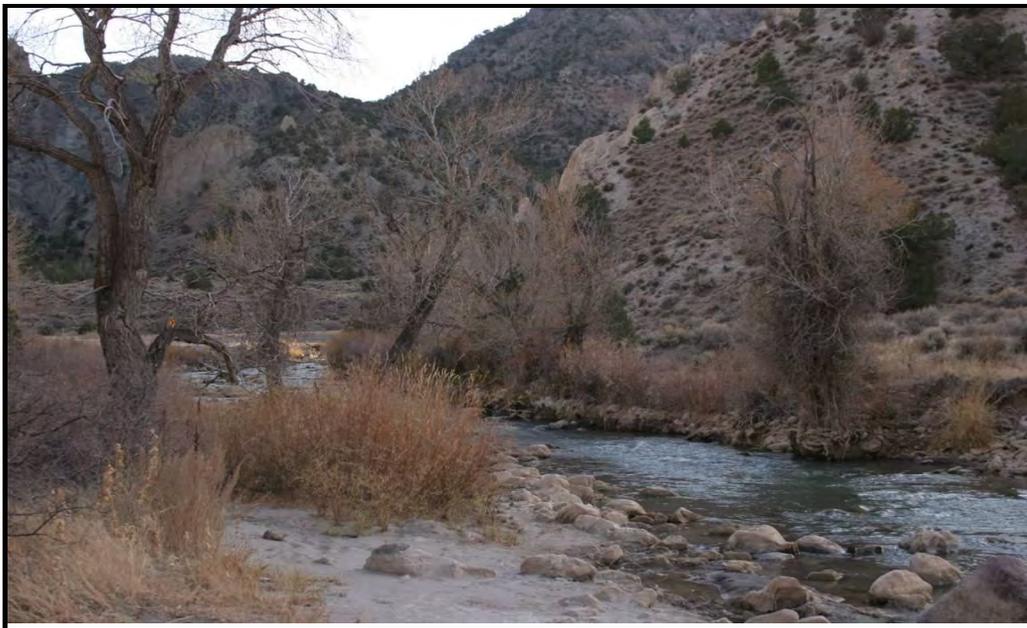
	A. Landform/Water	B. Vegetation	C. Structures
Form	Rugged	Irregular	N/A
Line	Rounded	Vertical, broken	N/A
Color	Tans, greys, reds	Variety of greens	N/A
Texture	Rough	Moderate	N/A

5. SQRU Location Map and IOP Locations

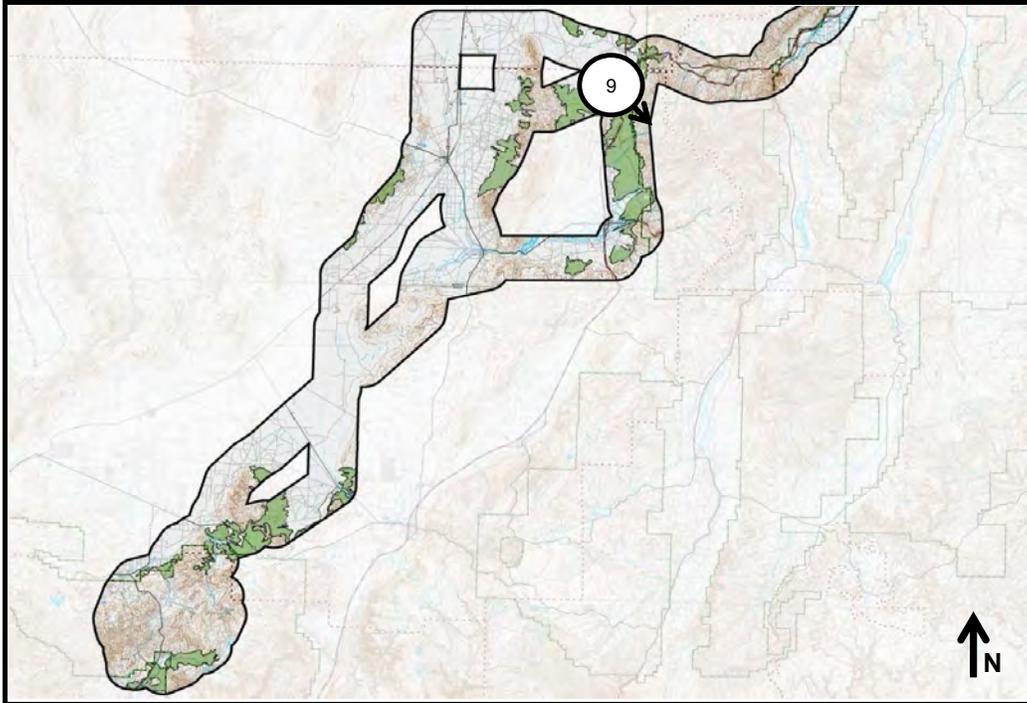


6. SQRU Photo - IOP 8 Views from US 89

Date:	Time:	Location:	
11/10/2009	15:47	38.569888	-112.252962



5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 9 Views from road adjacent to Sulphurdale

Date:	Time:	Location:	
11/17/2009	14:03	38.562824	-112.588551





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 10 Arid Juniper Hills SQ Rating: B

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Richfield	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

This unit is characterized by the steep edge of the landform and the undulating terrain within the unit. This landscape often appears mottled due to populations of sagebrush, shrubs, grass, and forbs interspersed between stands of pinyon and juniper that dominate this landscape. Vegetation patterns exhibit medium to coarse textures. There is little to no apparent water in this landscape. Colors in this landscape include muted tans and greens in the vegetation while the soil and rock layers create layers of red, tan, and white. The adjacent mountains and valleys have a minor influence on this landscape. This landscape is common within the High Plateaus of Utah. Cultural modifications are limited to gravel roads which cross the edges of the landscape.

3. Score

	Rating	Rationale
a. Landform	3	Steep, undulating
b. Vegetation	2	Sagebrush and grasses
c. Water	0	Little influence
d. Color	3	Variety in landform, vegetation colors limited
e. Adjacent Scenery	2	Mountains and flat valleys
f. Scarcity	2	Common
g. Cultural Modification	0	Gravel roads
Total	12	B

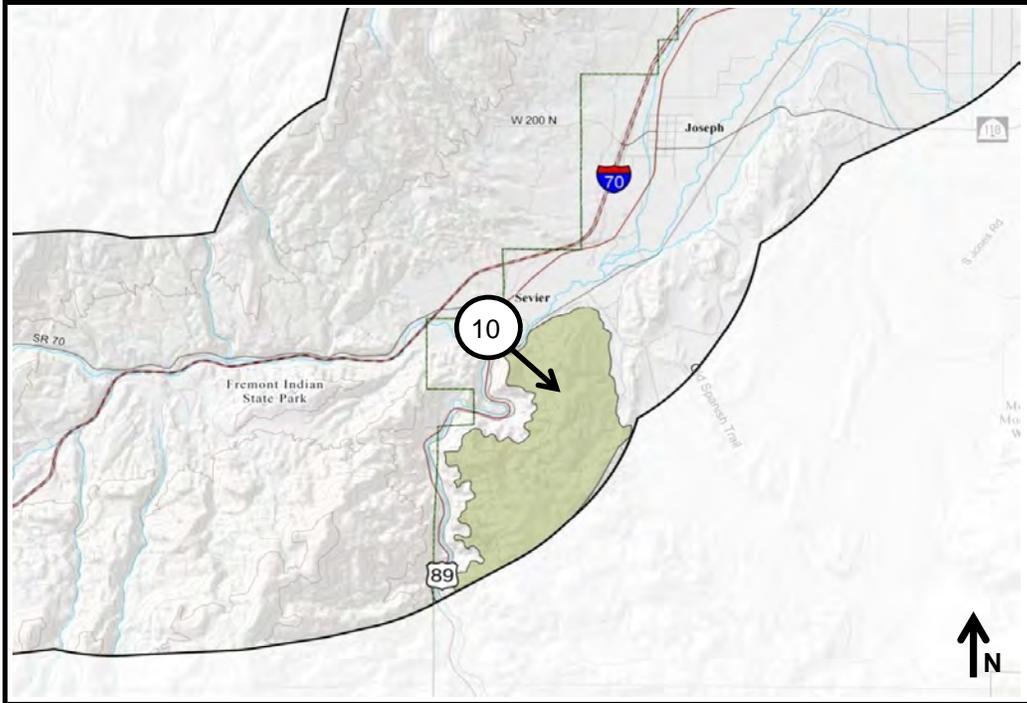
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Undulating, rolling	Indistinct	N/A
Line	Converging, angular	Irregular, broken	N/A
Color	Tans, reds	Muted greens	N/A
Texture	Rough	Moderate	N/A

5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 10 Views from US 89

Date:	Time:	Location:	
11/10/2009	15:53	38.58881	-112.258186





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 11 **Sagebrush Hills (Colorado Plateau)** **SQ Rating: C**

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Richfield	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

The Sagebrush Hills are defined by rolling terrain which is finely dissected and resembles badlands in some portions. Vegetation consists mostly of sagebrush with scattered grasses, junipers, and areas of bare soil. The hills have smooth textured grasses and uniform sagebrush with scattered junipers that create coarser textures in the draws. There is little influence of water in this landscape except for snow cover in the winter. Color contrast is low due to similar colors between the vegetation and the soil; there is little seasonal change except for snow cover which introduces white into the landscape. The undulating lines created by this landscape contrast with the more jagged lines in the adjacent mountains and horizontal lines in the adjacent basins. This landscape is common in the High Plateaus of Utah. Cultural modifications are limited to paved and gravel roads.

3. Score

	Rating	Rationale
a. Landform	2	Rolling terrain, finely dissected
b. Vegetation	2	Scattered sagebrush, grasses, and junipers
c. Water	0	Little influence
d. Color	2	Mostly tan, small areas of red
e. Adjacent Scenery	2	Flat valley and mountains
f. Scarcity	2	Common
g. Cultural Modification	0	Gravel and paved roads
Total	10	C

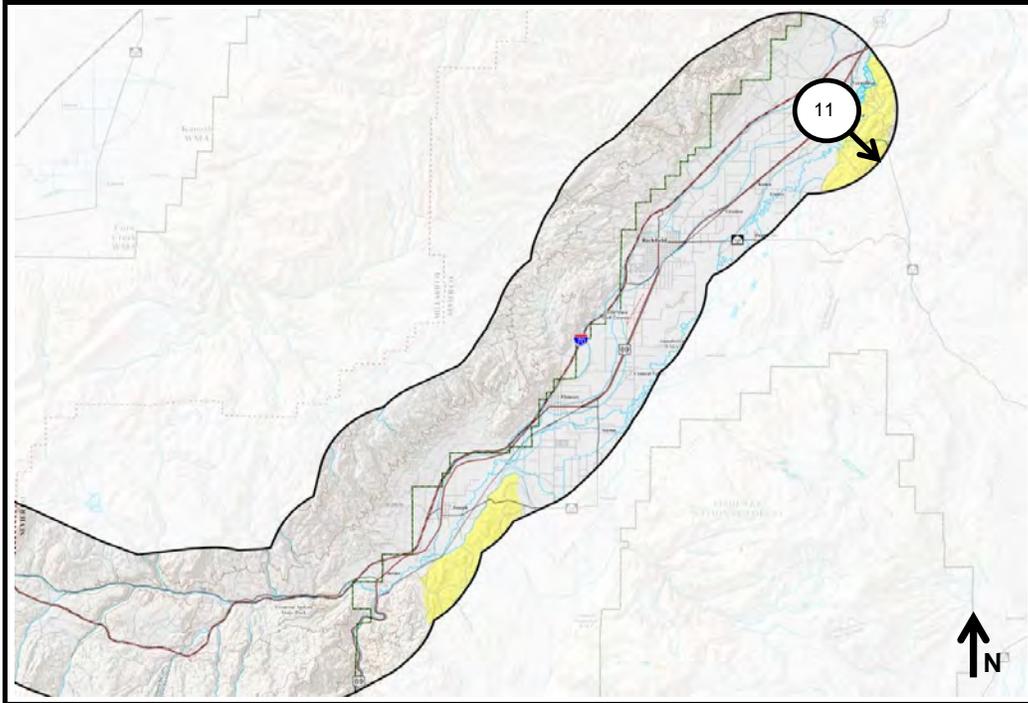
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Rolling	Low, short	N/A
Line	Undulating	Irregular	N/A
Color	Tans, reds	Pale greens	N/A
Texture	Moderate	Moderate	N/A

5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 11 Views from SR 24

Date:	Time:	Location:	
11/10/2009	12:15	38.826431	-111.958541





DRAFT SCENIC QUALITY RATING WORKSHEET (VRM)

SQRU ID: 12 Sagebrush Hills (Basin and Range) SQ Rating: C

Date last revised: 7/6/2010	Sigurd to Red Butte No.2 345kV Transmission Line Project
Field Office(s): Cedar City	

1. Evaluators:

M. Schwartz, K. Rauhe

2. Narrative:

This landscape is defined by rolling terrain which rises above the flat, adjacent basins. Vegetation is dominated by big sagebrush, grasses, and forbs. Textures are uniformly moderate, except where exposed soils create fine textures or rock outcroppings generate coarse textures. There is little influence of water in this landscape except for snow cover in the winter. Color contrast is low due to the limited color range between the green and tan shrubs and the tan soil. Undulating to jagged lines formed by this landform contrast with the flat surrounding landscape which enhance the landform contrast. This landscape is common in the Great Basin. Cultural modifications include mining operations and access roads.

3. Score

	Rating	Rationale
a. Landform	2	Rolling hills
b. Vegetation	2	Sagebrush and grasses
c. Water	0	Little influence
d. Color	2	Greens, tans
e. Adjacent Scenery	2	Flat basins
f. Scarcity	2	Common
g. Cultural Modification	0	Gravel roads, isolated mining
Total	10	C

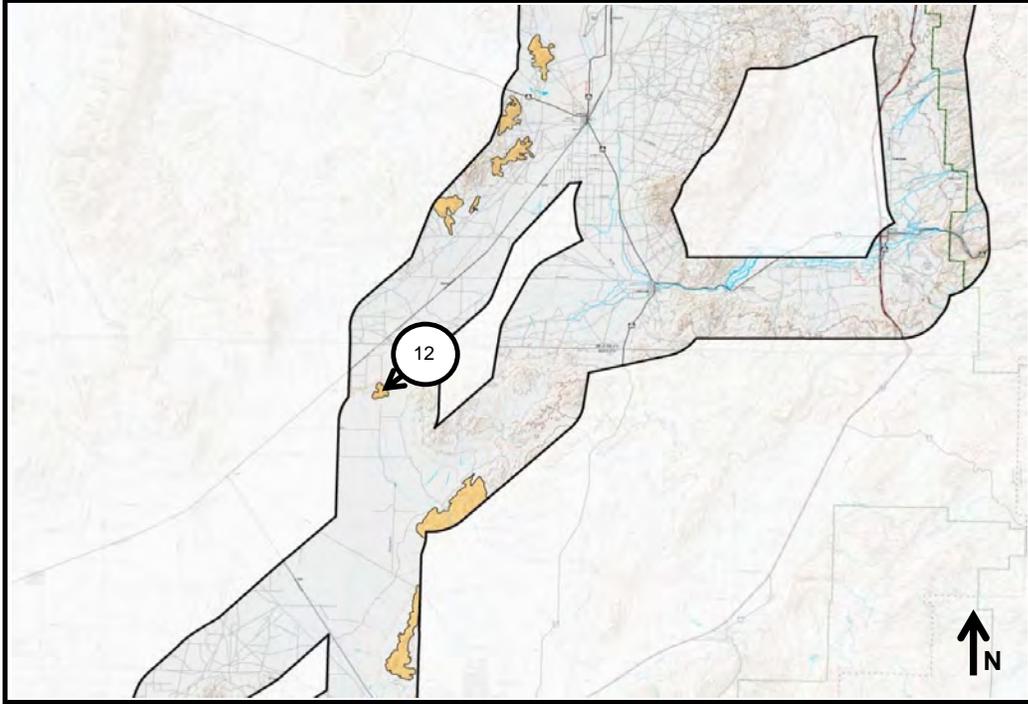
Scenic Quality Classification A=19 or more B=12-18 C=11 or less

Comments:

4. Landscape Character (Features)

	A. Landform/Water	B. Vegetation	C. Structures
Form	Rolling	Smooth	N/A
Line	Curving	Regular	N/A
Color	Tans	Tans and pale greens	N/A
Texture	Moderate	Moderate	N/A

5. SQRU Location Map and IOP Locations

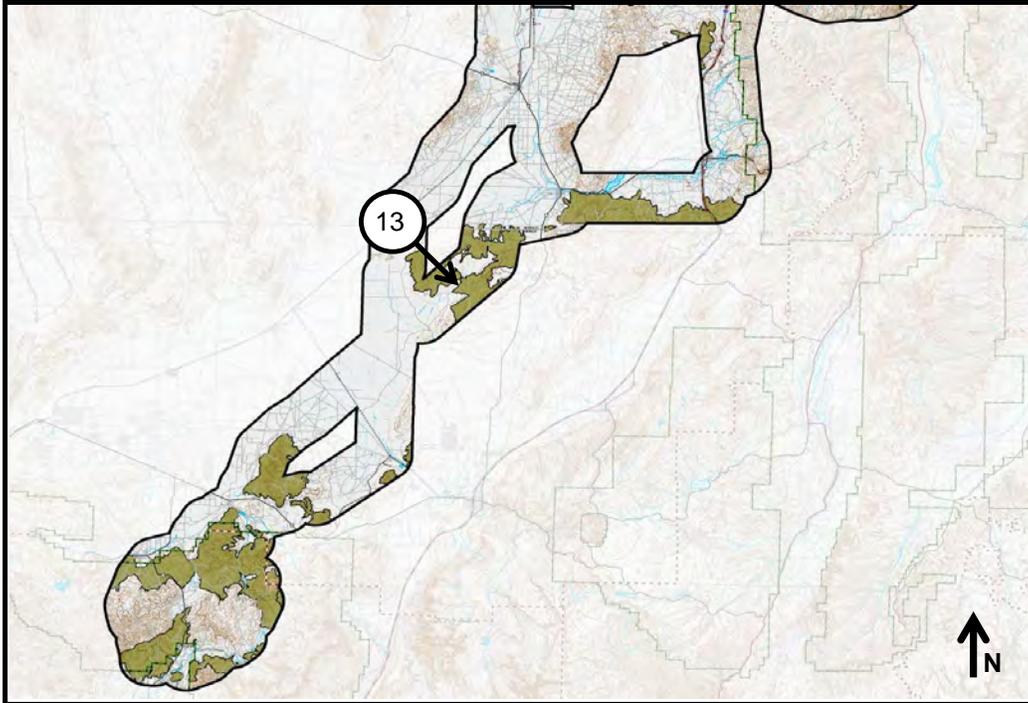


6. SQRU Photo - IOP 12 Views from IPP Access Road

Date:	Time:	Location:	
11/12/2009	8:42	38.107846	-113.242431



5. SQRU Location Map and IOP Locations



6. SQRU Photo - IOP 13 Views from IPP Access Road

Date:	Time:	Location:	
5/12/2009	8:36	38.107846	-113.242431



**Scenic Attractiveness
Rating Sheets (USFS)**

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SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Atchinson Mountains
SCENIC ATTRACTIVENESS CLASS RATING	B (12)
PHOTOGRAPH LOCATION	37.41097, -113.53986

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

5	4	3	2	1
---	---	---	---	---

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

5	4	3	2	1
---	---	---	---	---

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

5	4	3	2	1
---	---	---	---	---

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

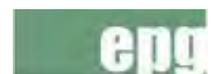
5	4	3	2	1
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SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The forms of these mountains are prominent from the south while they transition from the surrounding foothills more smoothly to the north and east. Lines created by the ridgeline are rugged with curving lines created by lower peaks. The presence of surface water is limited to the spring runoff and snow capped peaks for a portion of the year. Vegetation primarily consists of pinyon-juniper woodlands with pockets of mountain mahogany, with aspen on the high elevations and sagebrush at low elevations. Color contrast is moderate due to the dark greens in the junipers with grey and tan rocks, and snowcapped peaks during the winter months. Landscape character deviations are limited since the majority of the landscape lies within Inventoried Roadless Areas, except for a major utility corridor along the western margin of the landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Bull Valley Mountains
SCENIC ATTRACTIVENESS CLASS RATING	B (12)
PHOTOGRAPH LOCATION	37.48008, -113.72918

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

| 5 | 4 | 3 | 2 | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

| 5 | 4 | 3 | 2 | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

| 5 | 4 | 3 | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

| 5 | 4 | 3 | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The form of these mountains is prominent in the north end while they smoothly transition into the foothills in the south. Lines created by the ridgelines are undulating and angular in some locations. Due to the elevation of these mountains, snow covers the higher peaks for part of the year and spring runoff creates many small streams. Vegetation includes sagebrush and oaks at low elevations, pinyon-junipers at high elevations with pockets of mountain mahogany. Textures range from coarse in the scattered juniper communities and rock outcropping, to medium textures in the dense juniper and sagebrush area. Color contrast is moderate due to the variety of greens in vegetation, whites, tans, and reds in the rocks and exposed soils. Landscape character deviations are limited since the majority of the landscape lies within Inventoried Roadless Areas, there are a few microwave facilities but they do not dominate the landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Clear Creek Canyon
SCENIC ATTRACTIVENESS CLASS RATING	B (12)
PHOTOGRAPH LOCATION	38.560371, -112.368605

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

| 5 | 4 | 3 | 2 | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

| 5 | 4 | 3 | 2 | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

| 5 | 4 | 3 | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

| 5 | 4 | 3 | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

This canyon forms the boundary between the Pahvant Range to the north and the Tushar Mountains to the south. The form of the canyon walls change throughout the unit with areas where the walls are bold and prominent rising above the canyon floor to other areas where the form is indistinct except for the occasional escarpment. Clear Creek runs through the center of the unit with side canyons which contain smaller streams with water occurring only during spring runoff. Due to limited influence of these smaller streams, vegetation is not as modified as in other comparable landscapes. Vegetation varies from pinyon-juniper on the canyon walls to grasses, sagebrush, forbs, and riparian vegetation on the floor. Color contrast is high in some areas with red and tan rocks, variety of greens in vegetation, and the blues in the creek while other areas are more muted with only tan rocks and a few varieties of vegetation. The numerous historic and cultural sites establish a strong sense of place within the canyon. Landscape character deviations include Interstate 70, existing transmission lines, and other access roads.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Foothills
SCENIC ATTRACTIVENESS CLASS RATING	B (11)
PHOTOGRAPH LOCATION	37.56161, -113.52688

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

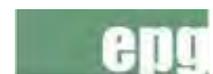
<p>LANDFORM PATTERNS AND FEATURES <i>Landforms, rock features & their juxtaposition to one another.</i></p>		5		4		3		2		1	
<p>SURFACE WATER CHARACTERISTICS <i>Occurrence & characteristics of rivers, streams, lakes, & wetlands.</i></p>		5		4		3		2		1	
<p>VEGETATION PATTERNS <i>Occurrence & characteristics of potential vegetative communities & the patterns formed by them.</i></p>		5		4		3		2		1	
<p>LAND USE PATTERNS & CULTURAL FEATURES <i>Visible elements of historic & present land use contributing to image & sense of place.</i></p>		5		4		3		2		1	

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The moderately steep forms associated with this landscape contrasts with the more rugged forms of the adjacent mountains and the indistinct forms of the adjacent basins. There is limited influence of surface water in this landscape and is primarily in the form of snow fall during the winter with small streams forming during the spring runoff. Vegetation is dominated by pinyon and juniper through most of the unit with sagebrush along the lower elevations and oak communities at high elevations and in draws. Textures range from medium textured dense pinyon-juniper areas to coarse textured areas with scattered vegetation and rock outcroppings. Color contrast is moderate due to the variety of greens in the different vegetations, red and tan rock outcroppings, and snow cover during the winter months. Landscape character deviations include a major utility corridor and chained areas. Areas within this unit that have been chained were designed in a manner that they repeat form, line, color, and texture of the surrounding landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Juniper Hills
SCENIC ATTRACTIVENESS CLASS RATING	B (10)
PHOTOGRAPH LOCATION	37.59259, -113.52301

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

| 5 | 4 | 3 | **2** | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

| 5 | 4 | 3 | **2** | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

| 5 | 4 | **3** | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

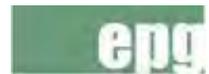
| 5 | 4 | **3** | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

This landscape is characterized by moderately to steeply undulating, rounded, low hills. There is a limited influence of water in this landscape, winter snowfall creates seasonal streams that flow through this landscape. Vegetation is uniformly dominated by pinyon-juniper, although in some instances they appear mottled due to populations of sagebrush, grass, and forbs interspersed between stands of pinyon-juniper. Textures in the vegetation are typically medium to coarse, while color diversity is limited to dark green, isolated pockets of lighter greens, and tans (seasonally). The juniper-dominated vegetation, typical of the landscape, moderately contrasts with the adjacent basin landscape. Landscape character deviations include a major utility corridor and chained areas. Areas within this unit that have been chained were designed in a manner that they repeat form, line, color, and texture of the surrounding landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Marysville Canyon
SCENIC ATTRACTIVENESS CLASS RATING	A (16)
PHOTOGRAPH LOCATION	38.569888, -112.252962

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

| 5 | 4 | 3 | 2 | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

| 5 | 4 | 3 | 2 | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

| 5 | 4 | 3 | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

| 5 | 4 | 3 | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The forms created by the canyon walls are bold and rise prominently from the canyon floor. The Sevier River is the focus of this landscape as it flows through the canyon. The influence of the river is dramatic as the canyon walls are dry with grasses, sagebrush, and junipers while the area adjacent to the river contains a variety of riparian vegetation. Textures range from coarse texture on the canyon walls to fine textured grasses along the river and moderately coarse cottonwoods and other riparian plants. Color contrast is moderate due to the variety of greens in the vegetation, the blue-green water, and tans and reds in the rocks. The historic rail corridor and related signage generate a sense of place which contributes to the quality of the landscape. Deviations to the existing landscape character are limited to US Highway 89 which runs through the center of the landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Pahvant Range
SCENIC ATTRACTIVENESS CLASS RATING	B (12)
PHOTOGRAPH LOCATION	37.56161, -113.52688

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

| 5 | 4 | 3 | 2 | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

| 5 | 4 | 3 | 2 | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

| 5 | 4 | 3 | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

| 5 | 4 | 3 | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The Pahvant Range has layers of undulating lines that become more jagged on the highest peaks, which contrast with the adjacent flat valley/basins. Surface water is primarily in the form of snow fall and small water courses formed by the spring runoff. Vegetation ranges from pinyon-juniper at the base to alpine vegetation on the high summits. Color diversity is high due to the range of greens in the vegetation, reds and greys in the exposed rocks, white snowcapped peaks, and the variety of colors present in the deciduous vegetation during autumn. Landscape character deviations include existing transmission lines and ATV trails.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Pine Valley Mountains
SCENIC ATTRACTIVENESS CLASS RATING	A (16)
PHOTOGRAPH LOCATION	37.45316, -113.47529

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

5 | 4 | 3 | 2 | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

5 | 4 | 3 | 2 | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

5 | 4 | 3 | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

5 | 4 | 3 | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The form created by the mountains is bold and in strong contrast to the surrounding basin and foothills. Lines created by the ridgelines are jagged and complex which stand out against the rolling lines created by the foothills. Due to the high elevation of these mountains, snow caps the mountains for a majority of the year and there are a few perennial streams that flow from the mountains including the Santa Clara River. In addition to these streams, there are a few natural springs located in the landscape. Vegetation is very diverse with pinyon-junipers occurring at middle elevations, while aspens, spruce, and fir grow at the high elevations. Textures range from coarse textured rock outcropping and scattered junipers to medium textured dense junipers and deciduous trees. Color contrast is high due to the variety of greens in the vegetation, tans and greys in the rock outcroppings, and white snowcapped peaks. Seasonal color also increases interest within the deciduous tree communities at high elevations. Landscape character deviations are limited in this landscape due to the majority of the unit lying within the Pine Valley Mountain Wilderness area and adjacent Inventoried Roadless Areas.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Sagebrush Basin
SCENIC ATTRACTIVENESS CLASS RATING	C (7)
PHOTOGRAPH LOCATION	37.47727, -113.63208

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

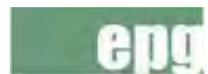
<p>LANDFORM PATTERNS AND FEATURES <i>Landforms, rock features & their juxtaposition to one another.</i></p>	5	4	3	2	1
<p>SURFACE WATER CHARACTERISTICS <i>Occurrence & characteristics of rivers, streams, lakes, & wetlands.</i></p>	5	4	3	2	1
<p>VEGETATION PATTERNS <i>Occurrence & characteristics of potential vegetative communities & the patterns formed by them.</i></p>	5	4	3	2	1
<p>LAND USE PATTERNS & CULTURAL FEATURES <i>Visible elements of historic & present land use contributing to image & sense of place.</i></p>	5	4	3	2	1

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The largely horizontal form of this landscape is defined and enhanced by adjacent foothill and mountain landscapes. There is little to no influence of water for the majority of the year except for snowfall during periods of the winter. Though vegetation is generally dominated by sagebrush, grasses are found interspersed throughout and often dominate pasture lands. Additionally, junipers are occasionally scattered at the edge of this landscape at its interface with adjacent foothill and mountain landscapes. Textures range from uniformly medium textured sagebrush dominated areas, to medium and fine textures where grasses and sagebrush are co-dominate, or in locations where grasses dominate. Color contrast, largely created by vegetation, is low with a mixture of greens, grey-greens, and browns (when grasses go dormant). Cultural features in this landscape includes historic ranching operations and historical sites. The primary landscape character deviation is a major utility corridor.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Sevier River
SCENIC ATTRACTIVENESS CLASS RATING	B (12)
PHOTOGRAPH LOCATION	38.624688, -112.205911

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

5	4	3	2	1
---	---	---	---	---

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

5	4	3	2	1
---	---	---	---	---

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

5	4	3	2	1
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LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

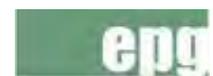
5	4	3	2	1
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SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The forms of this landscape are horizontal due to the floodplain generated by the Sevier River. Undulating lines are also formed as the river flows through the surrounding sagebrush-dominated landscapes. This river is of uncommon size within the Basin and Range and has a strong affect on the character of this landscape due to the presence of water year-round. Vegetation is varied with riparian plants dominating the river edge, and sagebrush and grasses occurring away from the water. Color contrast is expressed through a moderate variety of greens within riparian and surrounding vegetation, reds occurring seasonally in the stems of dogwoods, tans and browns in the soil and rocks, and blue-green water. Landscape character deviations are limited to bridge crossings within the Fishlake National Forest.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Tushar Mountains
SCENIC ATTRACTIVENESS CLASS RATING	B (14)
PHOTOGRAPH LOCATION	38.560371, -112.368605

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

| 5 | 4 | 3 | 2 | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

| 5 | 4 | 3 | 2 | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

| 5 | 4 | 3 | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

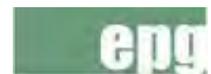
| 5 | 4 | 3 | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The Tushars are a distinct mountain range in central Utah and contain some of the highest peaks in the state. The higher peaks contain a unique environment which is located outside of the project study area. These mountains create a prominent form, which is increased due to the indistinct adjacent basin. The lines created by the highest peaks are jagged while the majority of the mountains form undulating lines including the mountains in the study area. Vegetation is diverse, which changes with altitude, from pinyon-juniper, mountain brush, fir, spruce, to aspen. There is a major influence of water in the landscape with the mountains remaining snow capped for a majority of the year and numerous perennial creeks flowing through the landscape. Color contrast is high due to the variety of greens in the vegetation, tans in the exposed soil and rocks, white snowcapped peaks, and seasonal color in the fall. Landscape character deviations include existing transmission lines, access roads, communication sites, and Interstate 70.

PHOTOGRAPH



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Dixie National Forest SIO Report

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**Sigurd to Red Butte No. 2
345kV Transmission Project
Scenic Integrity Objective Development
Dixie National Forest**

Prepared for:



By:



Environmental Planning Group
247 South 500 East
Salt Lake City, Utah 84102

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List of Acronyms and Abbreviations

EIS	Environmental Impact Statement
FONSI Forest	Finding of No Significant Impact Dixie National Forest
IRA	Inventoried Roadless Area
Project	Sigurd to Red Butte No. 2 – 345kV Transmission Line Project
ROS	Recreation Opportunity Spectrum
SIO SMS	Scenic Integrity Objective Scenery Management System
USFS USGS	U.S. Forest Service U.S. Geological Survey

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1.0 INTRODUCTION

This report was prepared in response to a letter received from the Dixie National Forest (Forest) landscape architect, dated April 29, 2010 (Appendix A), regarding the Sigurd to Red Butte No. 2 – 345kV Transmission Project (Project) Environmental Impact Statement (EIS). The letter stated that Forest lands not assigned with current Scenic Integrity Objective (SIO) designations within the EIS study area (Figure 1 in Appendix B) should be assessed for use within the EIS analysis for visual resources. After further consultation with the Forest, direction was provided to update existing SIOs within the entire EIS study area associated with the Forest. The study area for the requested SIO update includes Forest-managed lands within 3 miles of the proposed alternative centerlines for the Project. The entire study area occurs within the Pine Valley Ranger District of the Forest managed under the Dixie National Forest 1986 Land and Resource Management Plan.

The Forest Land and Resource Management Plan was amended in June 2000 with the Scenery Management System (SMS) Environmental Assessment/Finding of No Significant Impact (FONSI). The development and approval of the SIOs described within this report and used for the EIS would not require a plan amendment as per by the second reason within the FONSI:

The Proposed Action provides programmatic direction for future projects, so that each project does not need to amend the Forest Plan as part of a project-level decision. I believe the effects to resources would not be significant, since we have been implementing on a project-by-project basis without significant effects, and the new standards and guidelines are consistent with the current Forest Plan. Disclosure of the site-specific effects and public participation will occur prior to the project decision for any specific resource activity. (USFS 2000)

Included in this report is an overview of inventory methods and results for analyzing and preparing SIOs. The inventory focused on the identification and analysis of landscape character (scenic attractiveness and scenic integrity) and landscape visibility (sensitive viewers and distance zones). These inventory components were combined to derive scenic classes, which were subsequently used to prepare SIOs as described in this report. These SIOs were then used to demonstrate Project conformance with the Forest Plan from a visual resource standpoint and will be documented in the EIS as such.

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2.0 METHODOLOGY

The U.S. Forest Service (USFS) SMS is used to evaluate and qualify the value of scenery on National Forest System lands for planning and management purposes. The methodology described below was based on the USFS SMS. The details of the process are described in *Landscape Aesthetics: A Handbook for Scenery Management*, which was adopted by the USFS in 1995. In summary, the SMS process consists of analyzing landscape character (scenic attractiveness and scenic integrity) and landscape visibility associated with sensitive viewers. The results of the analyses are used to assign a scenic class rating, which is subsequently reviewed by Forest visual resource managers. Based on future desired conditions and other resource considerations, a Final SIO level is assigned. Per direction from the Forest landscape architect, the process was modified to conform to the specific needs and goals of the Forest (see section 2.4 for specifics regarding updated processes).

2.1 Landscape Character

Landscape character consists of physical, biological, and cultural attributes that make a landscape identifiable or unique or give it a memorable sense of place (USFS 1995). To develop and delineate landscape character units, this study implemented an approach consistent with the USFS SMS direction using the attributes of landform, rock form, water form, vegetation, and cultural features as well as the *Ecological Subregions of the United States: Section Description* (USFS 1994) and *Physiography of Western United States* (Fenneman 1931) in determining regional context for landscape character. Within each of these landscape character units, scenic integrity and scenic attractiveness descriptions and ratings were developed.

2.1.1 Scenic Integrity

Scenic integrity is a measure of the intactness associated with the visual elements that define a particular landscape character unit and can range from very high to unacceptably low. A landscape character unit with minimal visual disruption is considered to have high scenic integrity. Those landscape character units occupied by landscape deviations modify the landscape character of a particular unit and have diminished scenic integrity. Other landscape features can be compatible with the landscape character (e.g., Forest trails, campgrounds, picnic areas, chained areas) and can contribute to or enhance scenic integrity through increasing landscape variety and developing a sense of place. Scenic integrity is expressed by the USFS as very high, high, moderate, low, very low, and unacceptably low. Table 1-1 provides the range of integrity levels and their associated definitions as described in the SMS handbook.

TABLE 1-1 – UNITED STATES FOREST SERVICE SCENIC INTEGRITY LEVELS	
Level	Description
Very High	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	The valued landscape character “appears” intact. Deviations may be present but must repeat form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.
Moderate	The valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Low	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, vegetation type changes or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.
Very Low	The valued landscape character “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 opening, vegetation type changes or architectural styles within or outside the 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.
Unacceptably Low	The valued landscape being viewed appears extremely altered. Deviations are extremely dominant and borrow little if any form, line, color, texture, pattern or scale from the landscape character. Landscapes at this level of integrity need rehabilitation. This level should only be used to inventory existing integrity.
SOURCE: USFS 1995	

Existing scenic integrity was mapped for this study using an approach adopted from the SMS visual resource inventory procedures. The results of the scenic integrity evaluation were factored into the development of landscape character. Scenic integrity was mapped through review of aerial imagery, United States Geological Survey (USGS) topographic maps, Inventoried Roadless Areas (IRAs), Recreation Opportunity Spectrum (ROS), and field investigation. Through consultation with the Forest, direction was given to place the highest importance on scenic integrity within the analysis.

2.1.2 Scenic Attractiveness

Scenic attractiveness measures the aesthetic value inherent in a landscape character unit and is based on the following landscape features: landform patterns and features, surface water characteristics, vegetation patterns and land use patterns, and cultural features (USFS 1995). In general, landscapes that exhibit a diversity of landscape features receive a high scenic attractiveness rating. Conversely, those landscapes that are more uniform or homogenous, with

low topographical and vegetation diversity, typically receive lower rankings. Following are the three ratings the USFS applies to landscapes as defined by the SMS:

- Class A – landscapes with distinctive or outstanding scenic quality or interest
- Class B – landscapes with typical or common diversity or interest
- Class C – landscapes with indistinctive or weak diversity or interest

The evaluation of scenic attractiveness for the Project was based on SMS visual resource inventory procedures. Scenic attractiveness rating sheets were developed for the study to record scenic attractiveness (Appendix C). Also, scenic attractiveness ratings were developed in the context of the entire ecoregion and not just the study area. Scenic attractiveness was mapped through review of aerial imagery, Southwest Region Gap Analysis Project landcover data, USGS topographic maps, and field investigation.

2.2 Landscape Visibility

Landscape visibility is a measure of discernable detail in the landscape relative to the location of the viewer and associated viewing conditions. Landscape visibility consists of a combination of sensitive viewers (constituents), concern or sensitivity of viewers (concern levels), and distance zones. Using the sensitive viewers identified for the Project (see Table 1-2), a map was prepared depicting distance zone buffers. Distance zones are described in Table 1-3 and are specific to the study area of the proposed action and not to the general landscape (i.e., the distance zones will be limited to the 6-mile-wide visual study boundary). The distance zone buffers were then assigned a value of 1 or 2, which corresponds with high and moderate sensitivity ratings, respectively. All other areas are valued at 3. Where buffers overlap, Figure 4-1 in the SMS manual was referenced (i.e., Mg1 is more sensitive than Fg2). The distance zone analysis resulted in a map divided into polygons with values Fg1, Fg2, Mg1, Mg2, Bg1, Bg2, Bg3. Based on direction from the Forest, landscape visibility was inventoried per SMS procedures and will aid in the development of SIOs but will not directly influence the inventoried SIOs as indicated in the SMS manual.

2.2.1 Sensitive Viewers

Viewer sensitivity, termed “concern levels” in the USFS SMS, pertains to the degree of concern for changes to the landscape setting or a particular viewshed. The sensitivity rating is based primarily on interest in scenery, as well as level of use. In general, viewers that have a high interest in scenery are associated with areas of national importance. Those viewers that have a moderate concern for aesthetics are generally associated with areas of local importance. Scenic or historic status may increase the amount and duration of use for viewers, thereby increasing their concern for changes to the landscape. There may also be a higher concern for aesthetics in special management areas or designations. Table 1-2 presents the sensitive viewers identified.

TABLE 1-2 – VIEWER SENSITIVITY	
High Sensitivity Viewers	Moderate Sensitivity Viewers
Residences	Hardscrabble Trail
Old Spanish Trail Corridor (National Historic Trail)	Shinbone Trail
Pine Valley Wilderness	Cemetery Trail
Mountain Meadow Historic Site	Indian Hollow Spring Trail
Goat Spring Trail (access to Pine Valley Wilderness)	State Route 18
Summit/Rock Springs Trail (access to Pine Valley Wilderness)	Forest Road 007
Water Canyon Trail (access to Pine Valley Wilderness)	Forest Road 009
Pinto Spring Trail (access to Pine Valley Wilderness)	Forest Road 011
Forest Road 035 (access to Pine Valley Wilderness)	Forest Road 014
Forest Road 375 (access to Mountain Meadow Historical Site)	Forest Road 255
	Forest Road 565

2.2.2 Distance Zones

Viewer perceptions of form, line, color, texture, and other visual elements in the landscape that vary with distance. In general, the ability to recognize details of form, line, color, and texture diminish as the distance from the viewpoint increases. The USFS SMS identifies three distance zones for general resource management planning as shown in Table 1-3: Foreground (0 to 0.5 mile), Middleground (0.5 to 4.0 miles), and Background (4+ miles) (USFS 1995). The distance zones identified by the USFS for general resource management planning are based on visibility thresholds associated with viewing typically forested landscapes (as described in the table below).

TABLE 1-3 – LANDSCAPE VISIBILITY DISTANCE ZONES		
Distance Zone	Distance	Description
Foreground	0 to 0.5 miles	Details of landscape elements are discernable and obvious. Texture, color, and reflectivity are perceived at this distance and can be dominant in the landscape.
Middleground	0.5 to 4 miles	At this distance zone, landscape elements begin to be less discernable. Textures are not evident but the overall context of the landscape is apparent.
Background	4 miles to horizon	At this distance zone the colors of the landscape become subdued. Textures are not evident and only large features are discernable (mountains, lakes, etc.).

2.2.2 Visibility

A viewshed analysis was performed using all sensitive viewers to determine those locations in the study area that would not be visible to any sensitive viewer. This analysis was used to confirm whether views from the sensitive viewers are appropriate for increasing the sensitivity of a given landscape.

2.3 Scenic Class

Scenic classes are comprised of landscape visibility (sensitive viewers and distance zones) and scenic attractiveness. They are used to determine the relative values of discrete landscape areas. Mapped scenic classes are typically used for forest planning efforts to compare the value of scenery with other resources, such as timber, wildlife, forest, or minerals. There are seven scenic class levels, which are determined by the USFS Scenic Class Matrix (Table 1-4). Generally, Scenic Classes 1–2 have high public value, Classes 3–5 have moderate value, and Classes 6–7 have low value (USFS 1995).

TABLE 1-4 – USFS SCENIC CLASS MATRIX									
Scenic Attractiveness Rating	Distance Zones and Concern Levels								
	Fg1	Mg1	Bg1	Fg2	Mg2	Bg2	Fg3	Mg3	Bg3
A	1	1	1	2	2	2	2	3	3
B	1	2	2	2	3	4	3	5	5
C	1	2	3	2	4	5	5	6	7

2.4 Scenic Integrity Objectives

SIOs are developed to establish the future desired condition of a given landscape area. SIO levels range from very high where only minute modifications are acceptable, to very low where deviations may strongly dominate the landscape. Scenic Classes are the baseline for determining SIOs, but existing scenic integrity, ROS, IRAs, and management prescriptions are all used in the process for classifying the Final SIOs.

For the development of SIOs, Scenic Class was combined with the Scenic Integrity ratings (Table 1-5). This is in direct response to consultation from the Forest landscape architect that scenic integrity should be the key element in determining SIOs. Using scenic integrity as the primary factor in determining SIOs, while reducing the influence of scenic attractiveness, visibility, and viewers (Scenic Class), is a deviation from the standard SMS policy.

TABLE 1-5 – SCENIC INTEGRITY OBJECTIVES MATRIX				
Scenic Class	Very High	High	Moderate	Low
1	Very High	High	High	Moderate
2	Very High	High	Moderate	Moderate

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3.0 RESULTS

The results section includes an inventory of existing landscape character (scenic attractiveness and integrity) and landscape visibility (sensitive viewers and distance zone); and the results of scenic class analysis and SIO levels.

3.1 Landscape Character Units

The study area is located in the southeast portion of the Great Basin and is adjacent to the High Plateaus of Utah (Fenneman 1931). Elevations range from 4,500 feet south of the town of Central, UT to Gardner Peak at 9,488 feet in the Pine Valley Mountains. The following landscape character units were identified in the study area:

- Atchinson Mountains
- Bull Valley Mountains
- Foothills
- Juniper Hills
- Pine Valley Mountains
- Sagebrush Basin

3.1.1 Atchinson Mountains

The Atchinson Mountains landscape character unit is located in the center of the study area and is bordered by foothills to the north and juniper hills to the south. Elevations range from 5,500 to 7,700 feet above sea level.



3.1.1.1 Scenic Integrity

The majority of this landscape character unit lies within IRAs with few landscape character deviations. Due to the high level of intactness in the landscape, the existing scenic integrity is high. There are a few high-clearance and closed roads that deviate from the existing landscape character in terms of form, line, color, and texture but these do not dominate the landscape. The existing patterns of vegetation are well preserved and contribute to the overall integrity of this landscape. Along the west side of the landscape, a major transmission corridor impacts the existing scenic integrity by strongly modifying the form, line, color, texture, and pattern of the surrounding landscape. These areas have a low existing scenic integrity (see Figure 2 in Appendix B).

3.1.1.2 Scenic Attractiveness

The forms of these mountains are prominent from the south while they transition from the surrounding foothills more smoothly to the north and east. Lines created by the ridgeline are rugged with curving lines created by lower peaks. The presence of surface water is limited to the spring runoff and snow capped peaks for a portion of the year. Vegetation primarily consists of pinyon-juniper woodlands with pockets of mountain mahogany, with aspen on the high elevations and sagebrush at low elevations. Color contrast is moderate due to the dark greens in the junipers with grey and tan rocks and snowcapped peaks during the winter months. This landscape is considered to have a scenic attractiveness rating of B (see Figure 3 in Appendix B).

3.1.1.3 Landscape Visibility

There are few viewers within this landscape character unit; the edges of this landscape would be the most visible based on the viewshed analysis (see Figure 4 in Appendix B). Several roads have foreground and middleground views of this landscape character unit, including Utah State Route 18, Forest Road 011, Forest Road 009, and Forest Road 035. The town of Central and the Mountain Meadow Historic Site have foreground and middleground views of this landscape.

The majority of this landscape is visible from identified sensitive viewers, except for the interior of the unit and isolated canyons. Areas that are not visible from these identified sensitive viewers would still be seen by dispersed viewers.

3.1.1.4 Scenic Class

The south and west portion of this landscape character unit have a scenic class level of 1 due to the foreground views of high sensitivity viewers, while the majority of the landscape lies within a scenic class level of 2 (see Figure 5 in Appendix B).

3.1.1.5 Scenic Integrity Objectives

The west edge of the landscape character unit, which lies outside of the IRAs, has a SIO of moderate while the majority of the landscape would have a SIO of high (see Figure 6 in Appendix B) based on the high level of existing scenic integrity and the quality of the landscape in terms of scenic attractiveness. The portion of the landscape visible within ½ mile from the Mountain Meadows Historic Site would also have a SIO of high due to the importance of the viewshed from that site. The high SIO level will only allow deviations that repeat form, line, color, texture, and pattern common to the landscape and are not evident to be out of character. The moderate SIO level will allow deviations that repeat form, line, color, texture, and pattern common to the landscape and remain visually subordinate to the landscape character.

3.1.2 Bull Valley Mountains

The Bull Valley Mountain landscape character unit is located in the west portion of the study area and is bordered by foothills to the north and south. Elevations range from 5,800 to 7,200 feet above sea level.



3.1.2.1 Scenic Integrity

The majority of this landscape character unit lies within IRAs with few landscape character deviations. Due to the high intactness of the landscape, the existing scenic integrity is high. There are a few high-clearance roads and microwave facilities that deviate from the existing landscape character in terms of form, line, color, texture, and pattern but these do not dominate the landscape.

3.1.2.2 Scenic Attractiveness

The form of these mountains is prominent in the north end while they smoothly transition into the foothills in the south. Lines created by the ridgelines are undulating and angular in some locations. Due to the elevation of these mountains, snow covers the higher peaks for a portion of the year and spring runoff creates many small streams. Vegetation includes sagebrush and oaks at low elevations and pinyon-junipers at high elevations with pockets of mountain mahogany. Textures range from coarse in the scattered juniper communities and rock outcroppings to medium textures in the dense juniper and sagebrush area. Color contrast is moderate due to the variety of greens in vegetation and whites, tans, and reds in the rocks and exposed soils. This landscape is considered to have a scenic attractiveness rating of B.

3.1.2.3 Landscape Visibility

There are primarily recreation viewers within this landscape character unit and residential viewers along the margins. The Hardscrabble and Shinbone Trails have foreground and middleground views of the landscape. Forest Road 007 also has foreground and middleground views of the landscape. The town of Enterprise has middleground views of the landscape and a single residence in Ox Valley has foreground views of the landscape.

The west portion of this landscape is not visible from identified sensitive viewers while the majority of the eastern side of the landscape is visible except for isolated canyons. Areas that are not visible from these identified sensitive viewers would still be seen by dispersed viewers.

3.1.2.4 Scenic Class

The area around Ox Valley has a scenic class level of 1 due to the single residence and the eastern margin adjacent to the Old Spanish Trail, while the majority of the landscape lies within a scenic class level of 2.

3.1.2.5 Scenic Integrity Objectives

The entire landscape character unit has a SIO of high. This is due to the high level of existing scenic integrity, the quality of the landscape in terms of scenic attractiveness, and the visibility of the landscape from established trails and dispersed recreation. This SIO level will only allow deviations that repeat form, line, color, texture, and pattern common to the landscape and are not evident to be out of character.

3.1.3 Foothills

There are three occurrences of the foothills landscape character unit in the study area including an area north of the Bull Valley and Atchinson Mountains (north), south of the Bull Valley Mountains (south), and north of the Pine Valley Mountains (southeast). Each of these areas has similar landscape character. Elevation ranges from 4,500 to 7,000 feet above sea level.



3.1.3.1 Scenic Integrity

A portion of this landscape character unit lies within IRAs with few landscape character deviations. In these IRAs, the level of intactness of the landscape creates a high level of existing scenic integrity. There are a few high-clearance roads that deviate from the existing landscape character in terms of form, line, color, texture, and pattern but these do not dominate the landscape. The existing patterns of vegetation are well preserved and contribute to the overall integrity of this landscape. The north and south occurrences of this landscape character unit have a major transmission corridor crossing, which strongly impact the existing scenic integrity. This corridor modifies the form, line, color, texture, and pattern of surrounding landscape. These areas have a low existing scenic integrity. There are areas that have been chained in the northern occurrence of this landscape character unit, which remain visually subordinate to the overall landscape character but do deviate in terms of form, line, color, texture, and pattern. These areas have a moderate existing scenic integrity. The other areas within the foothill landscape character unit have a high existing scenic integrity due to the limited modifications in the landscape and are limited to high-clearance roads.

3.1.3.2 Scenic Attractiveness

The moderately steep forms associated with this landscape contrast with the more rugged forms of the adjacent mountains and the indistinct forms of the adjacent basins. There is limited influence of surface water in this landscape and is primarily in the form of snow fall during the winter with small streams forming during the spring runoff. Vegetation is dominated by pinyon and juniper through most of the unit with sagebrush appearing at lower elevations and oak communities at high elevations and in draws. Textures range from medium textured in dense pinyon-juniper areas to coarse textured areas with scattered vegetation and rock outcroppings.

Color contrast is moderate due to the variety of greens in the different vegetations, red and tan rock outcroppings, and snow cover during the winter months. This landscape is considered to have a scenic attractiveness rating of B.

3.1.3.3 Landscape Visibility

Several roads have foreground and middleground views of this landscape character unit including Utah State Route 18, Forest Road 011, Forest Road 010, and Forest Road 035. The towns of Enterprise, Central, Pinto, and Pine Valley have foreground and middleground views of this landscape. There are also recreation foreground and middleground views of the landscape including Mountain Meadow Historic Site, Summit/Rock Springs Trail, Water Canyon Trail, Cemetery Trail, Indian Hollow Spring Trail, and the recreation complex at Pine Valley.

The majority of this landscape is visible from identified sensitive viewers except for isolated canyons. The areas that are not visible from these identified sensitive viewers would still be seen by dispersed viewers.

3.1.3.4 Scenic Class

The areas around Central, Pinto, Pine Valley, and trails that access the Pine Valley Mountain Wilderness and the Old Spanish Trail have a scenic class level of 1, while the majority of the landscape lies within a scenic class level of 2. There is a small area with a scenic class level of 3 along the southwest margin of the landscape, which is due to the limited number of viewers in this landscape character unit.

3.1.3.5 Scenic Integrity Objectives

The majority of the foothill landscape character unit has a SIO of high except for a few inclusions. The area around the major utility corridor that is not in an IRA has a moderate SIO except for land within ½ mile of the Mountain Meadow Historic Site which would maintain a SIO of high. The areas of chaining that are adjacent to the town of Enterprise have a high SIO due to their high level of visibility. The high SIO level will only allow deviations that repeat form, line, color, texture, and pattern common to the landscape and are not evident to be out of character. The moderate SIO level will allow deviations that repeat form, line, color, texture, and pattern common to the landscape and remain visually subordinate to the landscape character.

3.1.4 Juniper Hills

There are three occurrences of the juniper hills landscape character unit in the study area including an area east of Enterprise, south of Newcastle, and between Central and Pine Valley. Each of the juniper hills areas has similar landscape character. Elevation ranges from 5,400 to 6,800 feet above sea level.



3.1.4.1 Scenic Integrity

The majority of this landscape character unit contains areas that have been chained in a manner that does not dominate the valued landscape character but instead remain visually subordinate. This is due to the repetition of form, line, color, texture, and pattern from the overall landscape character. These areas also contain a network of high-clearance and gravel roads. The existing scenic integrity is moderate in this landscape. The occurrence of this landscape character unit east of Enterprise has a major transmission corridor crossing, which strongly alters the existing scenic integrity. This corridor strongly modifies the form, line, color, texture, and pattern of the surrounding landscape. This area has a low existing scenic integrity. The remaining areas within the unit have a high scenic integrity since the existing patterns of vegetation are well preserved and contribute to the overall integrity of the landscape.

3.1.4.2 Scenic Attractiveness

This landscape is characterized by moderately to steeply undulating, rounded low hills. There is a limited influence of water in this landscape; winter snowfall creates seasonal streams that flow through this landscape. Vegetation is uniformly dominated by pinyon-juniper, although in some occurrences they appear mottled due to populations of sagebrush, grass, and forbs interspersed between stands of juniper. Textures in the vegetation are typically medium to coarse while color diversity is limited to dark green, isolated pockets of lighter greens, and tans (seasonally). The juniper-dominated vegetation, typical of the landscape, moderately contrasts with the adjacent basin landscape. This landscape is considered to have a scenic attractiveness rating of B.

3.1.4.3 Landscape Visibility

Forest Road 011 and Forest Road 035 have foreground and middleground views of this landscape character unit. The town of Central and residences east of Enterprise have foreground and middleground views of this landscape.

Almost all of this landscape is visible from identified sensitive viewers including residences, travel routes, and recreation areas.

3.1.4.4 Scenic Class

The areas around Central, Forest Road 035, and the residences east of Enterprise have a scenic class level of 1, while the majority of the landscape lies within a scenic class level of 2.

3.1.4.5 Scenic Integrity Objectives

The northeast occurrence of the juniper hills landscape character unit would have a SIO of moderate due to the large areas of chaining and the associated road networks, which remain visually subordinate to the landscape. The area around the major utility corridor also would have a moderate inventory SIO due to the modifications to landscape character. The occurrence of this landscape character unit between Central and Pine Valley would have a high SIO due to visibility of this landscape from Forest Road 035, a major recreation destination route in the Forest. The high SIO level will only allow deviations that repeat form, line, color, texture, and pattern common to the landscape and are not evident to be out of character. The moderate SIO level will allow deviations that repeat form, line, color, texture, and pattern common to the landscape and remain visually subordinate to the landscape character.

3.1.5 Pine Valley Mountains

The Pine Valley Mountains landscape character unit is located in the southeast corner of the study area and is bordered by foothills to the north. Elevations range from 6,300 to 8,700 feet above sea level.



3.1.5.1 Scenic Integrity

The majority of this landscape character unit lies within IRAs or the Pine Valley Mountain Wilderness with very limited landscape character deviations. Due to the intactness of the landscape, the existing scenic integrity is very high for the areas within IRAs and Wilderness. The other portions of the landscape have an existing scenic integrity of high due to a few high-clearance roads that deviate from the existing landscape character in terms of form, line, color, texture, and texture but these do not dominate the landscape. The existing patterns of complex vegetation communities are well preserved and contribute to the overall integrity of this landscape. The trails and high level of recreation opportunities within the unit also increase the integrity of the landscape through the development of a strong sense of place.

3.1.5.2 Scenic Attractiveness

The form created by the mountains is bold and in strong contrast to the surrounding basin and foothills. Lines created by the ridgelines are jagged and complex, which stand out against the rolling lines created by the foothills. Due to the high elevation of these mountains, snow caps the mountains for a majority of the year and few perennial streams, including the Santa Clara

River and flow from the mountains. In addition to these water sources, a few natural springs are located in the landscape. Vegetation is very diverse with pinyon-junipers occurring at middle elevations and aspens, spruce, and fir at high elevations. Textures range from coarse-textured rock outcroppings and scattered junipers to medium-textured dense junipers and deciduous trees. Color contrast is high due to the variety of greens in the vegetation, tans and greys in the rock outcroppings, and white on the snowcapped peaks. Seasonal color also increases interest within the deciduous tree communities at high elevations. This landscape is considered to have a scenic attractiveness rating of A.

3.1.5.3 Landscape Visibility

Forest Road 035 and Forest Road 011 have middleground views of the landscape. The town of Pine Valley has foreground and middleground views of this landscape. There is also recreation foreground and middleground views of the landscape including Water Canyon Trail, Cemetery Trail, Indian Hollow Spring Trail, Goat Spring Trail, the recreation complex at Pine Valley, and dispersed recreation in the Pine Valley Mountain Wilderness.

The majority of this landscape is visible from identified sensitive viewers except for isolated canyons on the south side of the unit. This is due to the large number of recreation opportunities located in this landscape. The areas that are not visible from these identified sensitive viewers would still be seen by dispersed viewers.

3.1.5.4 Scenic Class

Since the landscape is considered to have a Scenic Attractiveness rating of A, the entire landscape character unit has a scenic class level of 1.

3.1.5.5 Scenic Integrity Objectives

The portions of this landscape within IRAs and Wilderness have a SIO of very high while the remaining areas have a SIO of high. This is due to the high quality of the existing landscape character in terms of both attractiveness and integrity. The very high SIO level will only allow minute deviations in the landscape and is the most restrictive SIO class. The high SIO level will only allow deviations that repeat form, line, color, texture, and pattern common to the landscape and are not evident to be out of character.

3.1.6 Sagebrush Basin

There are several occurrences of the sagebrush basin landscape character unit in the study area but they are usually privately owned. Each sagebrush basin area has similar landscape character. Elevation ranges from 5,200 to 6,200 feet above sea level.



3.1.6.1 Scenic Integrity

The majority of this landscape character unit is owned by private land owners but is a defining feature in the experience within the Forest because of its strong historic rural character. This is due to the intactness of the landscape, including Ox Valley and the area around Pinto, Grassy Flat, Grass Valley, and Pine Valley where the existing scenic integrity is high. The juxtaposition of a flat grass-dominated landscape with steep mountainous landscapes creates a strong sense of place in these landscapes. Mountain Meadow is heavily modified along its eastern edge due to the major transmission corridor crossing the unit, which modifies the existing scenic integrity. This corridor strongly modifies the form, line, color, and texture of surrounding landscape. These areas have a low existing scenic integrity. The remainder of Mountain Meadow, due to the rural development that does not decrease integrity, maintains the baseline scenic integrity level of moderate.

3.1.6.2 Scenic Attractiveness

The largely horizontal form of this landscape is defined and enhanced by adjacent foothill and mountain landscapes. There is little to no influence of water for the majority of the year except for snowfall during the winter. Though vegetation is generally dominated by sagebrush, grasses are found interspersed throughout and often dominate pasture lands. Additionally, junipers are occasionally scattered at the edge of this landscape at its interface with adjacent foothill and mountain landscapes. Textures range from uniformly medium textures in sagebrush-dominated areas to medium and fine textures where grasses and sagebrush are co-dominant or in locations where grasses dominate. Color contrast, largely a result of the vegetation, is low with a mixture of greens, grey-greens, and browns (when grasses go dormant). This landscape is considered to have a scenic attractiveness rating of C.

3.1.6.3 Landscape Visibility

Mountain Meadow Historic Site and the adjacent residences have foreground and middleground views of the landscape. Several roads have foreground and middleground views of this landscape character unit including Utah State Route 18, Forest Road 011, Forest Road 010, and Forest Road 035. The town of Central, Pinto, and Pine Valley have foreground and middleground views of this landscape.

Almost all of this landscape is visible from identified sensitive viewers including residences, travel routes, and recreation areas. This is due to this landscape being located adjacent to higher elevation landscapes which have superior views.

3.1.6.4 Scenic Class

The areas around Central, Mountain Meadow, Pinto, and Pine Valley have a scenic class level of 1 while the majority of the landscape lies within a scenic class level of 2.

3.1.6.5 Scenic Integrity Objectives

Most of the sagebrush basin landscape character unit has a SIO of high due to the intactness of the landscape and the importance of the landscape to the character of the Forest in creating a rural character of historic ranching operations. This includes Ox Valley, the area around Pinto, Grassy Flat, Grass Valley, and Pine Valley. Most of Mountain Meadow has an inventory SIO of moderate due to the major utility corridor except for areas within a ½ mile of the Mountain Meadow Historic Site which would have a high SIO in order to preserve views from this site. The high SIO level will only allow deviations that repeat form, line, color, texture, and pattern common to the landscape and are not evident to be out of character. The moderate SIO level will allow deviations that repeat form, line, color, texture, and pattern common to the landscape and remain visually subordinate to the landscape character.

4.0 REFERENCES CITED

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Appendix A – Letter from U.S. Forest Service

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File Code: 2380

Date: April 29, 2010

Cindy Smith
Project Manager
EPG
247 South 500 East
Salt Lake City, UT 84102

Dear Ms. Smith,

On April 22nd, Rick Dustin, Forest Landscape Architect on the Dixie National Forest and myself conducted a field investigation of the visual resource study methodology as proposed for the alternative routes proposed for the Sigurd to Red Butte power line on the Pine Valley Ranger District. Overall, we were much impressed by the depth and scope of the proposed study methodology that you have proposed. Our intention for this field trip was to try to match the process outlined in your study plan to the situation existing with the on-the-ground visual resource, and to identify any needed analysis gaps or potential procedural problem areas. All-in-all, your process is a logical one and covers most of our concerns. The process does not cover analysis of the existing condition and the visual vulnerability of the landscape settings of the Pine Valley Ranger District, but we assume that this will be covered in the actual EIS outside of the scenic resource specialist report.

I will attempt to address our concerns for the visual vulnerability of the landscape settings as well as propose some potential procedures and solutions to protect both the natural and cultural landscape of the Pine Valley Ranger District.

Of the alternatives proposed for the power line to cross the Pine Valley Ranger District, both the east and the west alternatives encompass relatively scenically intact landscapes, with only small-scale human intrusions and developments.

The eastern alternative route, from Newcastle through Pine Valley, crosses a scenically attractive cultural landscape of small ranchlands, alternating with hill slopes of pinyon-juniper. Small-scale, irregularly-shaped irrigated hayfield and pastures follow the twisting valley bottom of Pinto Creek. There is a local power line from Newcastle to Pine Valley, a single wood pole line, typical in scale to much of the rural west, which parallels a gravel road, frequently disappearing into the canyon folds and vegetation along Pinto Creek. The town of Pinto, a small village with a few historic homes, and other, more recent homes of modest size, occupies a small valley setting along Pinto Creek. The overall effect is a working cultural landscape that is visually cohesive, and the scale and type of development seems to fit in well and complement an



attractive pastoral landscape. The presence of the existing, small-scale, electrical line is not a significant visual intrusion.

The western alternative, along the Ox Valley Hills, crosses a relatively pristine, undeveloped landscape, with a predominantly natural setting. There is very little evidence of forced landscape change along this route, with only limited, small human intrusions upon the natural landscape. Only a few minor roads and trails access this area, effectively limiting land use development. The overall visual effect is one of high scenic integrity and high vulnerability to land use changes.

The central route alternative parallels an existing large-scale utility corridor of three major power lines. These three lines all are of different architectural styles and their combined visual impact is a major one. In this relatively open landscape, these three lines can be seen at great distances, particularly the large, steel-towered line, the central of the three, with wire of high reflective characteristics. These three lines have created an adverse impact to the scenic resource, so much so that potential mitigation efforts are not plausible, with the result that the scenic integrity of the landscape has been permanently affected.

As would be expected in a designated (both in the Dixie National Forest Management Plan and the Westwide Corridor EIS) utility corridor, in the central route the existence of a large power line often attracts other industrial land uses, and creates a multi-faceted utility corridor, one that cannot be designed to be subordinate to the natural or cultural landscape. The cumulative impacts of utility corridor expansion, and the addition of other lines and land uses, needs to be carefully considered in this study.

After much discussion and field review, we recommend four actions that we feel will be mutually beneficial to both our agency and the electrical utility. The analysis and subsequent results from these four actions will help protect and enhance the scenic resource.

1. The Dixie National Forest Management Plan has both gaps and inaccuracies in the Scenery Management System values on the Pine Valley Ranger District. It is recommended that your consultant group, with the cooperation of the Forest Service IDT LA and the Dixie Forest LA, analyze and assign Scenic Integrity Objectives to those unassigned areas along all the proposed power line routes.
2. It is our opinion that the protection of the Scenic Resource is primarily based on limiting the changes to landscape character. This project has the potential to change the existing landscape character on a large scale. It is recommended that your consultant group work with the Forest Service IDT LA in analyzing landscape character, focusing on the scale and location of changes for each of the alternatives.
3. Selected areas for visual simulations would be helpful to communicate the scale and appearance of this project to the public. Three areas for simulation were identified.
 - a. The Pinto townsite
 - b. Four mile Bench along the Santa Clara River near Pine Valley
 - c. The bench lands south of the town of Enterprise.
4. An in-depth discussion of cumulative effects on all potential routes, including a realistic look into the future and the potential for additional power line construction in the region.

A thorough review of the visual analysis and land use data that is currently available, combined with the knowledge gained from a field investigation, suggest that your consultant group devote significant time and energy to an in-depth analysis of the potential benefits to the scenic resource of the central route alternative.

We look forward to working with you on this important energy transmission project.

Sincerely,

A handwritten signature in cursive script that reads "Mike Kania". The signature is written in black ink and is positioned above the printed name.

MICHAEL KANIA
REGIONAL RECREATION PLANNER

cc: Gretchen Merrill, Susan Howle, Bevan Killpack, Liz Close

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Appendix B – Figures

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**FIGURE 1
STUDY AREA**

Legend

Project Features

-  Visual Resource Study Area
-  SIO Study Area

Transportation Features

-  Interstate Highway
-  US Highway
-  State Highway
-  Railroad
-  Airport Runway

Topographic Features

-  Index Contour (500 Meter Interval)
-  Index Contour (100 Meter Interval)
-  Contour (50 Meter Interval)

Land Jurisdiction

-  USFS Boundary
-  Private

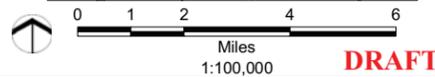
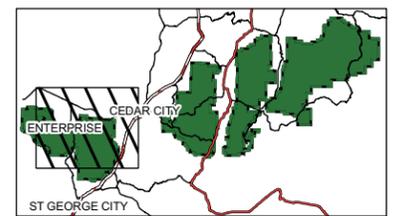
Hydrologic Features

-  Perennial River or Stream
-  Intermittent River Stream
-  Canal, Ditch, or Pipeline
-  Lake, Pond, or Reservoir
-  Swamp or Marsh
-  Intermittent Lake or Pond

Administrative Boundaries

-  County Boundary

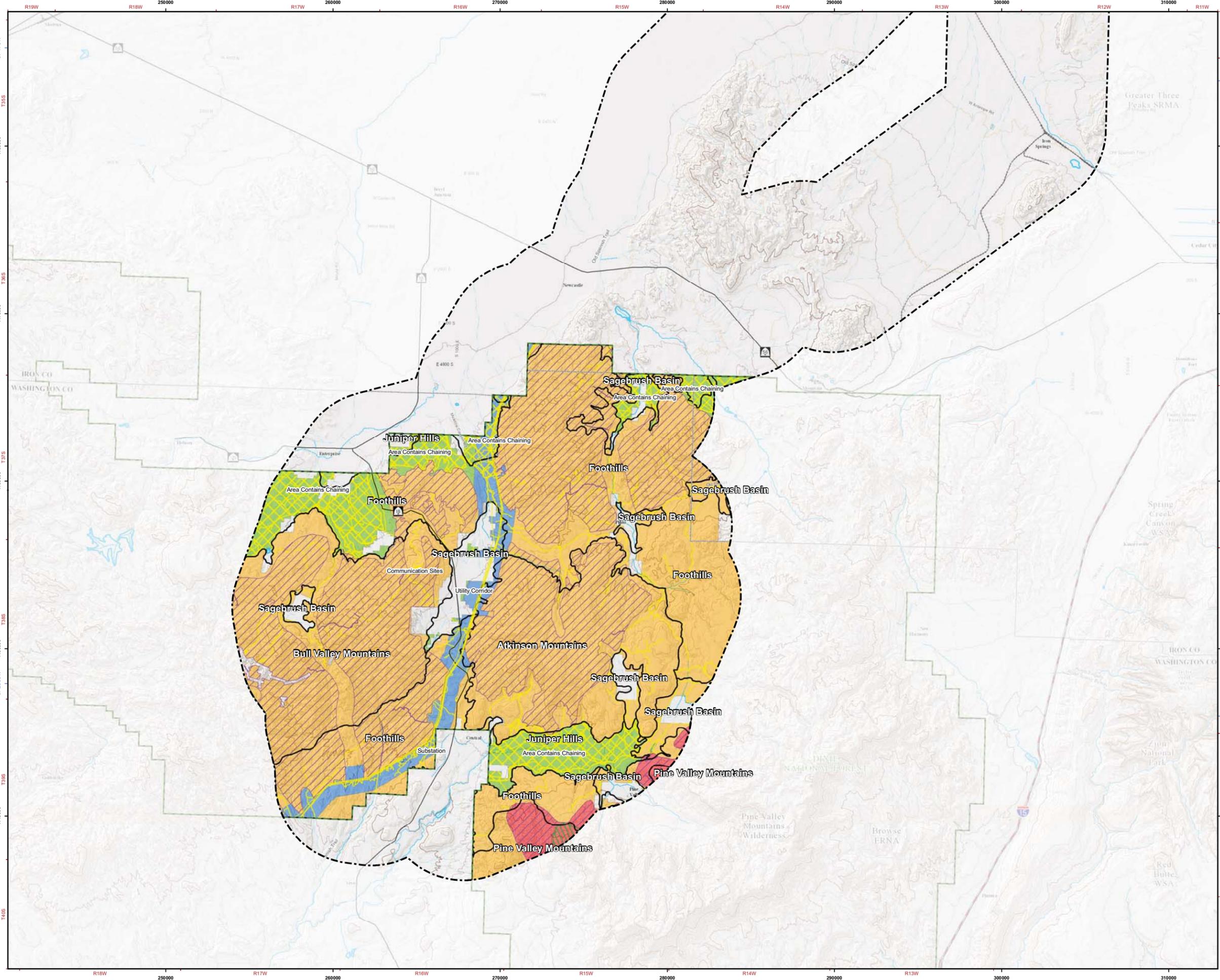
**SIGURD TO RED BUTTE NO. 2
345KV TRANSMISSION PROJECT**



**SCENIC INTEGRITY OBJECTIVE DEVELOPMENT
DIXIE NATIONAL FOREST**



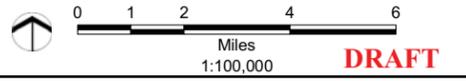
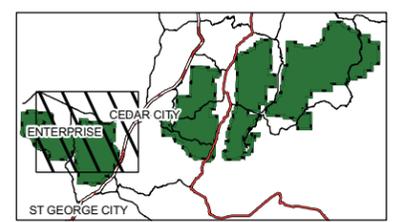
**FIGURE 2
EXISTING SCENIC INTEGRITY**



Legend

Project Features	Landscape Character Deviations
Visual Resource Study Area	Chained Areas
	Linear Landscape Deviations
Landscape Character	Land Jurisdiction
Landscape Character Unit	USFS Boundary
Existing Scenic Integrity	National Inventoried Roadless Area
Very High	Wilderness Areas
High	Hydrologic Features
Moderate	Perennial River or Stream
Low	Intermittent River Stream
Private	Canal, Ditch, or Pipeline
Transportation Features	Lake, Pond, or Reservoir
Interstate Highway	Swamp or Marsh
US Highway	Intermittent Lake or Pond
State Highway	
Railroad	Topographic Features
Airport Runway	Index Contour (500 Meter Interval)
	Index Contour (100 Meter Interval)
	Contour (50 Meter Interval)
	Administrative Boundaries
	County Boundary

**SIGURD TO RED BUTTE NO. 2
345KV TRANSMISSION PROJECT**



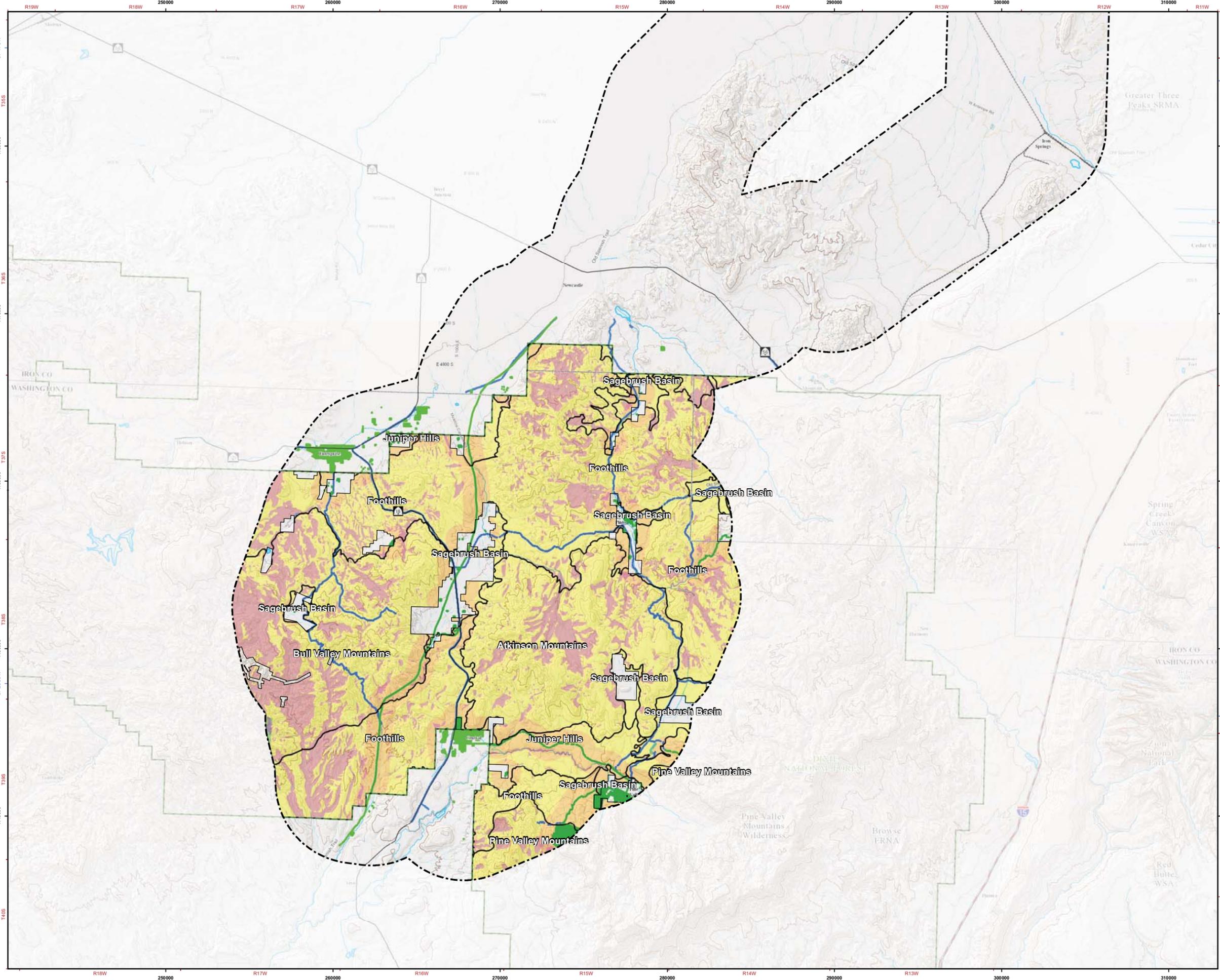
**SCENIC INTEGRITY OBJECTIVE DEVELOPMENT
DIXIE NATIONAL FOREST**



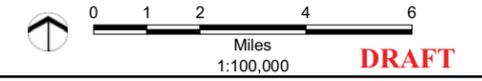
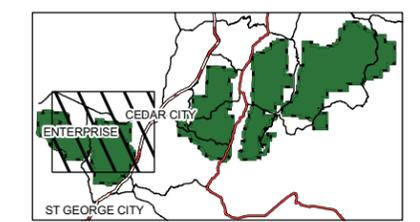
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**FIGURE 4
LANDSCAPE VISIBILITY**

- Legend**
- | | |
|------------------------------------|----------------------------------|
| Project Features | Landscape Visibility |
| Visual Resource Study Area | Fg1 |
| Landscape Character | Mg1 |
| Landscape Character Unit | Mg2 |
| Sensitive Viewer Locations | Not Seen from Sensitive Viewers |
| High | Land Jurisdiction |
| Moderate | USFS Boundary |
| Transportation Features | Private |
| Interstate Highway | Hydrologic Features |
| US Highway | Perennial River or Stream |
| State Highway | Intermittent River Stream |
| Railroad | Lake, Pond, or Reservoir |
| Airport Runway | Swamp or Marsh |
| Topographic Features | Intermittent Lake or Pond |
| Index Contour (500 Meter Interval) | Administrative Boundaries |
| Index Contour (100 Meter Interval) | County Boundary |
| Contour (50 Meter Interval) | |



**SIGURD TO RED BUTTE NO. 2
345KV TRANSMISSION PROJECT**



DRAFT

**SCENIC INTEGRITY OBJECTIVE DEVELOPMENT
DIXIE NATIONAL FOREST**

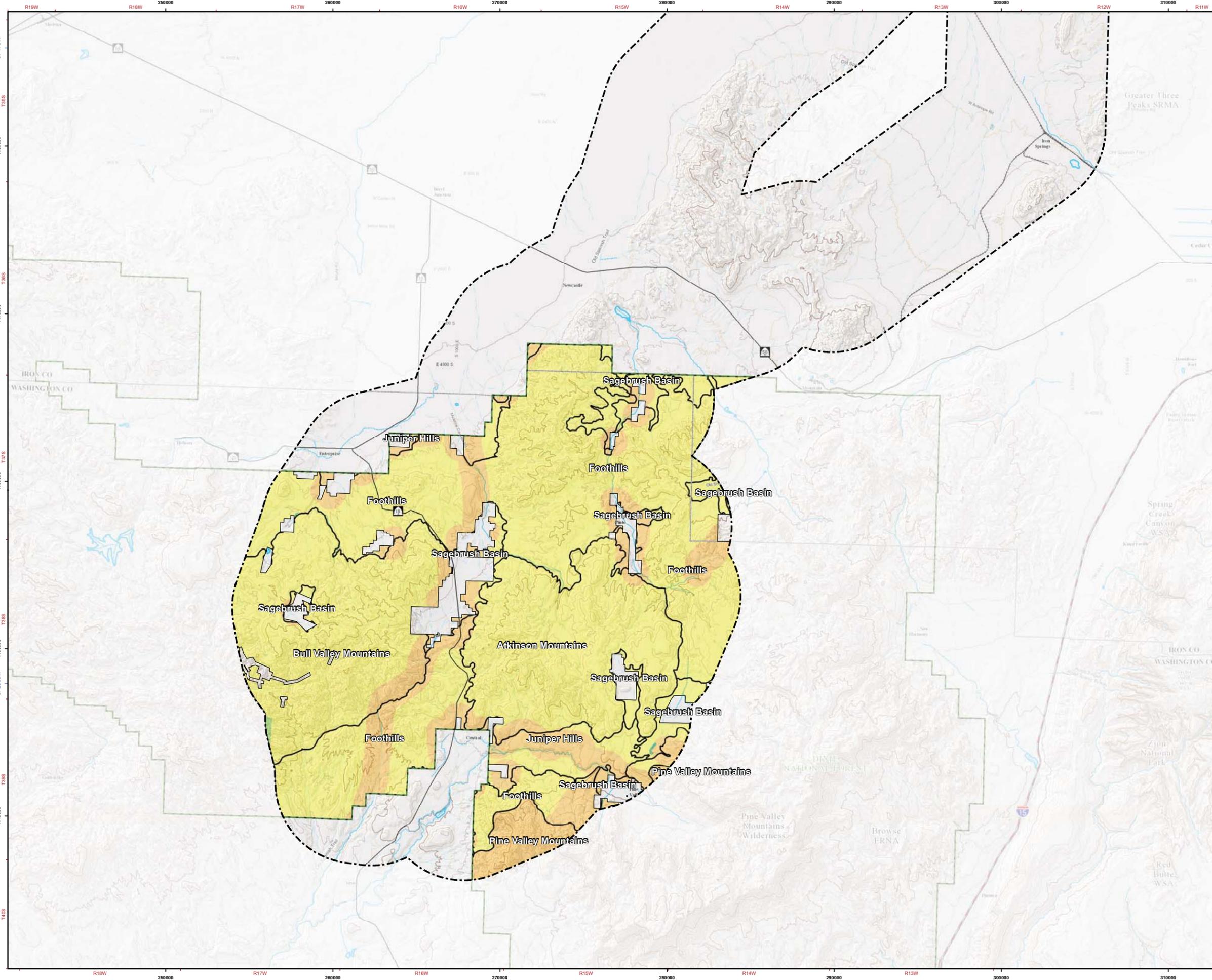


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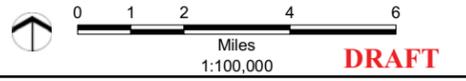
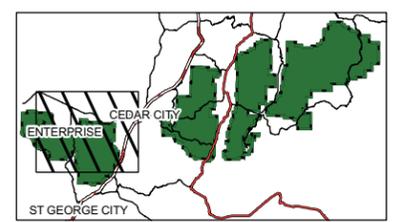
**FIGURE 5
SCENIC CLASSES**

Legend

- | | |
|------------------------------------|----------------------------------|
| Project Features | Scenic Class |
| Visual Resource Study Area | 1 |
| Landscape Character | 2 |
| Landscape Character Unit | 3 |
| Transportation Features | Land Jurisdiction |
| Interstate Highway | USFS Boundary |
| US Highway | Private |
| State Highway | Hydrologic Features |
| Railroad | Perennial River or Stream |
| Airport Runway | Intermittent River Stream |
| Topographic Features | Lake, Pond, or Reservoir |
| Index Contour (500 Meter Interval) | Swamp or Marsh |
| Index Contour (100 Meter Interval) | Intermittent Lake or Pond |
| Contour (50 Meter Interval) | Administrative Boundaries |
| | County Boundary |



**SIGURD TO RED BUTTE NO. 2
345KV TRANSMISSION PROJECT**



**SCENIC INTEGRITY OBJECTIVE DEVELOPMENT
DIXIE NATIONAL FOREST**



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**FIGURE 6
SCENIC INTEGRITY OBJECTIVES**

Legend

Project Features

-  Visual Resource Study Area

Landscape Character

-  Landscape Character Unit

Transportation Features

-  Interstate Highway
-  US Highway
-  State Highway
-  Railroad
-  Airport Runway

Topographic Features

-  Index Contour (500 Meter Interval)
-  Index Contour (100 Meter Interval)
-  Contour (50 Meter Interval)

SIO Level

-  Very High
-  High
-  Moderate

Land Jurisdiction

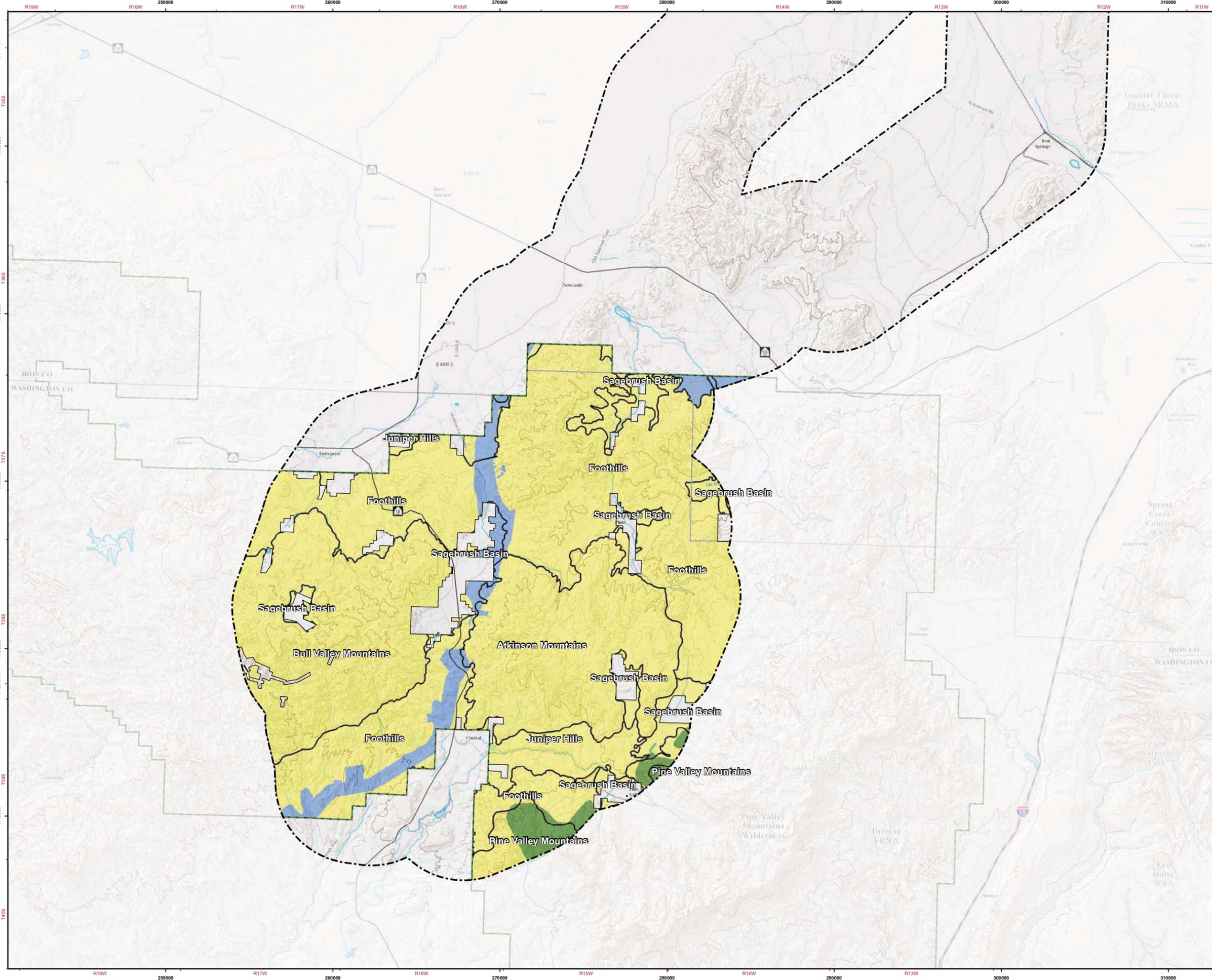
-  USFS Boundary
-  Private

Hydrologic Features

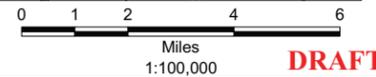
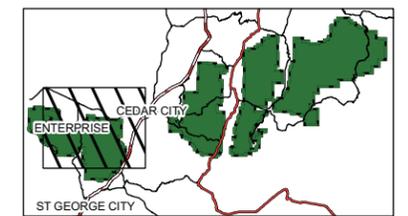
-  Perennial River or Stream
-  Intermittent River Stream
-  Canal, Ditch, or Pipeline
-  Lake, Pond, or Reservoir
-  Swamp or Marsh
-  Intermittent Lake or Pond

Administrative Boundaries

-  County Boundary



**SIGURD TO RED BUTTE NO. 2
345KV TRANSMISSION PROJECT**



DRAFT

**SCENIC INTEGRITY OBJECTIVE DEVELOPMENT
DIXIE NATIONAL FOREST**



**Appendix C – Scenic Attractiveness
Rating Sheets**

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SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Atchinson Mountains
SCENIC ATTRACTIVENESS CLASS RATING	B (12)
PHOTOGRAPH LOCATION	37.41097, -113.53986

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

5	4	3	2	1
---	---	---	---	---

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

5	4	3	2	1
---	---	---	---	---

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

5	4	3	2	1
---	---	---	---	---

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

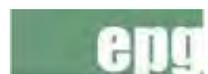
5	4	3	2	1
---	---	---	---	---

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The forms of these mountains are prominent from the south while they transition from the surrounding foothills more smoothly to the north and east. Lines created by the ridgeline are rugged with curving lines created by lower peaks. The presence of surface water is limited to the spring runoff and snow capped peaks for a portion of the year. Vegetation primarily consists of pinyon-juniper woodlands with pockets of mountain mahogany, with aspen on the high elevations and sagebrush at low elevations. Color contrast is moderate due to the dark greens in the junipers with grey and tan rocks, and snowcapped peaks during the winter months. Landscape character deviations are limited since the majority of the landscape lies within Inventoried Roadless Areas, except for a major utility corridor along the western margin of the landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Bull Valley Mountains
SCENIC ATTRACTIVENESS CLASS RATING	B (12)
PHOTOGRAPH LOCATION	37.48008, -113.72918

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

5	4	3	2	1
---	---	---	---	---

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

5	4	3	2	1
---	---	---	---	---

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

5	4	3	2	1
---	---	---	---	---

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

5	4	3	2	1
---	---	---	---	---

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The form of these mountains is prominent in the north end while they smoothly transition into the foothills in the south. Lines created by the ridgelines are undulating and angular in some locations. Due to the elevation of these mountains, snow covers the higher peaks for part of the year and spring runoff creates many small streams. Vegetation includes sagebrush and oaks at low elevations, pinyon-junipers at high elevations with pockets of mountain mahogany. Textures range from coarse in the scattered juniper communities and rock outcropping, to medium textures in the dense juniper and sagebrush area. Color contrast is moderate due to the variety of greens in vegetation, whites, tans, and reds in the rocks and exposed soils. Landscape character deviations are limited since the majority of the landscape lies within Inventoried Roadless Areas, there are a few microwave facilities but they do not dominate the landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Foothills
SCENIC ATTRACTIVENESS CLASS RATING	B (11)
PHOTOGRAPH LOCATION	37.56161, -113.52688

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

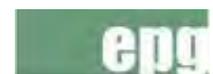
<p>LANDFORM PATTERNS AND FEATURES <i>Landforms, rock features & their juxtaposition to one another.</i></p>		5		4		3		2		1	
<p>SURFACE WATER CHARACTERISTICS <i>Occurrence & characteristics of rivers, streams, lakes, & wetlands.</i></p>		5		4		3		2		1	
<p>VEGETATION PATTERNS <i>Occurrence & characteristics of potential vegetative communities & the patterns formed by them.</i></p>		5		4		3		2		1	
<p>LAND USE PATTERNS & CULTURAL FEATURES <i>Visible elements of historic & present land use contributing to image & sense of place.</i></p>		5		4		3		2		1	

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The moderately steep forms associated with this landscape contrasts with the more rugged forms of the adjacent mountains and the indistinct forms of the adjacent basins. There is limited influence of surface water in this landscape and is primarily in the form of snow fall during the winter with small streams forming during the spring runoff. Vegetation is dominated by pinyon and juniper through most of the unit with sagebrush along the lower elevations and oak communities at high elevations and in draws. Textures range from medium textured dense pinyon-juniper areas to coarse textured areas with scattered vegetation and rock outcroppings. Color contrast is moderate due to the variety of greens in the different vegetations, red and tan rock outcroppings, and snow cover during the winter months. Landscape character deviations include a major utility corridor and chained areas. Areas within this unit that have been chained were designed in a manner that they repeat form, line, color, and texture of the surrounding landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Juniper Hills
SCENIC ATTRACTIVENESS CLASS RATING	B (10)
PHOTOGRAPH LOCATION	37.59259, -113.52301

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

| 5 | 4 | 3 | 2 | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

| 5 | 4 | 3 | 2 | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

| 5 | 4 | 3 | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

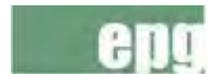
| 5 | 4 | 3 | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

This landscape is characterized by moderately to steeply undulating, rounded, low hills. There is a limited influence of water in this landscape, winter snowfall creates seasonal streams that flow through this landscape. Vegetation is uniformly dominated by pinyon-juniper, although in some instances they appear mottled due to populations of sagebrush, grass, and forbs interspersed between stands of pinyon-juniper. Textures in the vegetation are typically medium to coarse, while color diversity is limited to dark green, isolated pockets of lighter greens, and tans (seasonally). The juniper-dominated vegetation, typical of the landscape, moderately contrasts with the adjacent basin landscape. Landscape character deviations include a major utility corridor and chained areas. Areas within this unit that have been chained were designed in a manner that they repeat form, line, color, and texture of the surrounding landscape.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Pine Valley Mountains
SCENIC ATTRACTIVENESS CLASS RATING	A (16)
PHOTOGRAPH LOCATION	37.45316, -113.47529

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

LANDFORM PATTERNS AND FEATURES

Landforms, rock features & their juxtaposition to one another.

5 | 4 | 3 | 2 | 1 |

SURFACE WATER CHARACTERISTICS

Occurrence & characteristics of rivers, streams, lakes, & wetlands.

5 | 4 | 3 | 2 | 1 |

VEGETATION PATTERNS

Occurrence & characteristics of potential vegetative communities & the patterns formed by them.

5 | 4 | 3 | 2 | 1 |

LAND USE PATTERNS & CULTURAL FEATURES

Visible elements of historic & present land use contributing to image & sense of place.

5 | 4 | 3 | 2 | 1 |

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The form created by the mountains is bold and in strong contrast to the surrounding basin and foothills. Lines created by the ridgelines are jagged and complex which stand out against the rolling lines created by the foothills. Due to the high elevation of these mountains, snow caps the mountains for a majority of the year and there are a few perennial streams that flow from the mountains including the Santa Clara River. In addition to these streams, there are a few natural springs located in the landscape. Vegetation is very diverse with pinyon-junipers occurring at middle elevations, while aspens, spruce, and fir grow at the high elevations. Textures range from coarse textured rock outcropping and scattered junipers to medium textured dense junipers and deciduous trees. Color contrast is high due to the variety of greens in the vegetation, tans and greys in the rock outcroppings, and white snowcapped peaks. Seasonal color also increases interest within the deciduous tree communities at high elevations. Landscape character deviations are limited in this landscape due to the majority of the unit lying within the Pine Valley Mountain Wilderness area and adjacent Inventoried Roadless Areas.

PHOTOGRAPH



SCENIC ATTRACTIVENESS RATING WORKSHEET (SMS)

LANDSCAPE CHARACTER DESCRIPTION	Sagebrush Basin
SCENIC ATTRACTIVENESS CLASS RATING	C (7)
PHOTOGRAPH LOCATION	37.47727, -113.63208

SCENIC ATTRACTIVENESS CLASSIFICATION RATING

<p>LANDFORM PATTERNS AND FEATURES <i>Landforms, rock features & their juxtaposition to one another.</i></p>	5	4	3	2	1
<p>SURFACE WATER CHARACTERISTICS <i>Occurrence & characteristics of rivers, streams, lakes, & wetlands.</i></p>	5	4	3	2	1
<p>VEGETATION PATTERNS <i>Occurrence & characteristics of potential vegetative communities & the patterns formed by them.</i></p>	5	4	3	2	1
<p>LAND USE PATTERNS & CULTURAL FEATURES <i>Visible elements of historic & present land use contributing to image & sense of place.</i></p>	5	4	3	2	1

SCENIC ATTRACTIVENESS CLASSIFICATION LEGEND: A = 15 or more B = 10 - 14 C = 9 or less

NARRATIVE LANDSCAPE DESCRIPTION

The largely horizontal form of this landscape is defined and enhanced by adjacent foothill and mountain landscapes. There is little to no influence of water for the majority of the year except for snowfall during periods of the winter. Though vegetation is generally dominated by sagebrush, grasses are found interspersed throughout and often dominate pasture lands. Additionally, junipers are occasionally scattered at the edge of this landscape at its interface with adjacent foothill and mountain landscapes. Textures range from uniformly medium textured sagebrush dominated areas, to medium and fine textures where grasses and sagebrush are co-dominate, or in locations where grasses dominate. Color contrast, largely created by vegetation, is low with a mixture of greens, grey-greens, and browns (when grasses go dormant). Cultural features in this landscape includes historic ranching operations and historical sites. The primary landscape character deviation is a major utility corridor.

PHOTOGRAPH

