Appendix C
Visual Resources

C1.0 VISUAL RESOURCES

C1.1 Project Background

Plumas Sierra Rural Electric Cooperative (PSREC) proposes to install a fiber cable within its service territory in rural northeastern California. The project was initiated under a grant awarded through the American Recovery and Reinvestment Act, 2009. The fiber line would upgrade existing communication utilities within PSREC's service territory. The proposed route roughly follows California State Highway 70 from its intersection with US Highway 395 at Hallelujah Junction moving west to Quincy, California. The section of proposed line on federal lands would traverse the Beckwourth and Mt. Hough Ranger Districts within the Plumas National Forest. State Highway 70 is the primary travel corridor through these Ranger Districts. State Highway 70 also travels along the Wild and Scenic Feather River providing access to forest roads and recreation facilities and has been designated the Feather River Scenic Byway. This visual analysis addresses what degree of impact the proposed fiber optic project might have on visual resources seen from the State Highway 70 travel corridor between the towns of Portola and Quincy, California.

C1.1.2 Visual Characteristics of the Proposed Fiber Cable

The fiber cable would be blown into a conduit approximately one inch in diameter or less. The conduit would be black in color. Black is typically preferred because it prevents surface reflectivity coming from the utility and because it is neutral and more easily absorbed into the textures and colors of the surrounding landscape. The size and color of the cable that houses the fiber cable would appear similar to a phone line cable.

C1.1.3 Installation Methodology for the Proposed Fiber Cable

The fiber optic cable would be strung onto existing power line poles within the existing 69kV power line corridor that traverses Beckwourth and Mt. Hough Ranger District lands. Three power line conductors are currently strung on support poles down the main corridor with intermittent distribution lines coming off the main line. The fiber optic cable would be hung at a distance below the conductors that would meet National Electrical Safety Code (NESC).

The existing ROW easement is 40 feet wide and the conduit is proposed to be strung along 13 miles crossing national forest lands. Within national forest lands, a combination of truck travel and foot travel would be used to access power poles for hanging the cable. Installation trucks would travel to power poles within the corridor using existing and maintained forest service system roads and power line maintenance access roads. Power line access roads were installed under permit with the Plumas National Forest and are currently used for maintaining and repairing the 69kV line where and as needed. Roads are accessed primarily for keeping trees and vegetation clear of the line for unobstructed power access and for fire prevention and safety.

Approximately 80 existing poles on the PNF would be accessed on foot. Most of these remote poles stand in heavily forested, mountainous terrain on Plumas National Forest lands. The fiber optic cable would be strung by hand by installation crews walking the corridor and climbing individual poles to attach the conduit. Where hand crews are to be used for segments in particularly mountainous terrain, trucks would be positioned at distant ends of these mountainous segments to mechanically assist in feeding the cable to crews who would be stringing the line out on foot. Segments of fiber optic cable would be hung by hand crews walking the existing power line corridor with no impact to the access roads

or damage to vegetation beyond clearing permitted by the Forest Service under power line maintenance plans.

The power line and proposed route for the fiber optic cable follow State Highway 70 ROW corridor; the route runs roughly parallel to the highway but is out of view from the scenic travel route. The power line corridor to be used was originally cut through the forest and is mostly tucked into dense stands of coniferous pine and fir trees with intermittent high meadow openings. From Portola to Quincy, the line crosses the Feather River Scenic Byway at four points: 1) At the intersection of sections 10,11, 14 and 15, T22N, R12E an existing distribution line crosses the highway and will be used to distribute fiber optic capability to Graeagle. 2) In section 19, T23N, R12E the utility corridor crosses to the south side of the highway and runs for approximately three miles through sections 24, 13, 14, 11 and 10 in T23N, R11E. 3) The corridor crosses back over the scenic byway in section 10, T23N, R11E. 4) The fourth crossing is just west of Massack in section 22, T24N, R10 E where the corridor crosses again to the south of the highway and continues along the south side until it reaches Quincy, California. The four crossings are locations within national forest lands where the proposed fiber cable could be seen for the scenic byway once it is strung onto existing poles.

C1.1.4 Project Background Summary

Because of the small diameter and black color of the proposed cable, it will appear subordinate to the existing three power cables when crossing the scenic byway at four locations and might not be readily visible to the unaided eye when traveling at highway speeds. Additionally, because the existing power line corridor and power poles will be used to support the proposed fiber cable, the cable will not be recognized as constituting new infrastructure. More importantly, because of available and permitted maintenance access roads, no new access roads or utility corridors or trench lines are proposed to be cut through mountainous terrain, forested slopes or open meadows along the entire distance of the planned route. And because difficult terrain will be accesses on foot and the remaining route will be accessed using standard trucks typical of maintenance operations, no temporary scarring of terrain or vegetation is anticipated. The appearance of the fiber optic cable should be easily absorbed into the landscape as a subordinate element even at high viewer sensitivity levels at highway crossings along the Feather River Scenic Byway. The methods for installing the cable will not create any new landscape cuts or scarring and thus will retain the qualities of the existing landscape as it is currently seen from the Feather River Scenic Byway.

C1.2 Landscape Narrative

The existing 69kV power line corridor, within which the fiber optic cable is proposed to be installed, roughly parallels the area's primary scenic travel route. The corridor and the scenic highway travel together through a diverse range of landscape character types. Two regional vegetation types and four identifiable landscape character types that travelers will view from the Feather River Scenic Byway are as follows:

C1.2.1 Regional Vegetation Types

C1.2.1.1 Eastern Sierra Vegetation Type:

The Eastern Sierra vegetation type is represented along the project route from US Highway 395 through Beckwourth, Portola, Blairsden, and Mowhawk up the eastern side of Lee's Summit highway pass.

C1.2.1.2 Western Sierra Vegetation Type:

The Western Sierra vegetation type is represented along the project route from the western side of Lee's Summit highway pass through Massack into Quincy.

C1.2.2 Landscape Character Types

C1.2.2.1 Expansive Sagebrush Flats:

Traveling from US Highway 395 through Beckwourth and into and around Portola, a highway traveler will see expansive sagebrush flats. The open sage flats character type falls within the drier Eastern Sierra vegetation type. The sage flats essentially comprise a large open delta of tributaries draining off the eastern side of Lee Summit. Middle-ground and background landscapes are of more visual interest than the foreground sagebrush flats.

C1.2.2.2 Open Yellow Pine Forest with intermittent River Riparian:

Ponderosa and the related Jeffrey pine species are also visible to travelers approaching Portola. Pines in the background distance zones are widely spaced as they approach the edge of the sagebrush flats constituting and open yellow pine forest. Riparian willows associated with the sagebrush delta tributaries form a visible edge to the flats in the middle-ground distance zone. Unsightly yet historic industrial developments and structures from mining and railroad eras remain along the Feather River in and around Portola. Although sagebrush and riparian willows are scattered across the Portola town site, the only trees seen from Portola are in the distance creating a forested backdrop to the town. Visible within this broad and open landscape are ribbons of riparian vegetation following the meandering Feather River as it winds through and past the town. The open pine stands that inch up to the edge of Portola's sage flats spread most prominently to the west of Portola. The power line follows the railroad across Portola's sage flats into the open and scattered pines. A notable landform is a minor, twice-rolling ridge leading away from Portola. The Feather River takes a wide sweep away from the highway leaving Portola and the pine forest type. The Feather River riparian environment finally winds its way back to within a mile or two of the highway near Mohawk. Travelers will have intermittent views of it before the river pulls away from the road again dropping in elevation out of site.

C1.2.2.3 Dense Mixed Conifer Forest:

Leaving the Portola sage and pine landscape character types, the scenic byway will begin a gradual climb toward Lee Summit. Through the west side of Portola the highway has traveled on non-forest service lands. West of Portola the power line corridor crosses through forest service lands north of Delleker. Approximately two miles west of Delleker, the power line corridor begins to cross in and out of pieces of forest service to non-forest lands through Blairsden. Not until around Mowhawk and the Beckwourth Ranger District does the power line corridor move through a larger, continuous section of forest service lands paralleling the highway to the north side up to Jackson Creek picnic area. It is at and around the Beckwourth Ranger Station that scenic byway travelers can become aware that they are entering a forest environment. Trees have begun to gather up around the highway in increasingly dense

coniferous stands. Tree species diversify from pines to include a mix of some fur and oak species within yellow pine species. As travelers climb toward Cromberg, the dense conifer forest around them becomes interspersed with rock faces indicative of the steep rugged terrain and with highly scenic meadows that afford occasional open views. The power line corridor has been out of site and parallel to but above the highway traveling through dense tree stands over rugged terrain. Trees are still primarily yellow pine and stand as tall or taller than the 68-foot wood power poles. As the highway continues its climb past Cromberg it crosses onto non-forest service lands for a few miles toward Lee Summit. From Jackson Creek picnic area just south of Cromberg to approximately three miles west of Cromberg is the segment of power line that crosses the highway to the south at Jackson Creek and back to the north again a few miles west of Cromberg. The highway hugs high elevation, mountainous terrain to Lee Summit through stretches of forest service land while the power line corridor remains out of view nestled within tall pine stands with mixed fur and oak. Meanwhile, the railroad parallels the road but much further below and along the river. In the dense forest and steep terrain, the railroad and river dropped well below the highway where they are not in conscious view of the traveler. There are glimpses of the railroad through the forested terrain from Lee's Summit to Quincy and views from the scenic byway extend to the south and below the roadway. With the power line corridor screened by tall mixed conifer trees above the roadway and opposite the primary viewing direction, travelers are not likely to make any visual connection with the power line except for glimpses at high speeds where the corridor crosses back and forth across the highway at Jackson Creek and again about 2.5 to 3 miles west of Cromberg.

C1.2.2.4 High Elevation Open Meadow:

Open mixed grass and wildflower meadows appear intermittently along the scenic byway route on both sides of the Lee Summit pass at higher elevations. . As open pine forests climb to higher elevations on the eastern side of Lee's Summit, they are scattered with areas of completely open, grassy meadows that create notable vistas. On the western side of Lee Summit, grass meadows appear within and are surrounded by forest stands of dense mixed conifers. High meadows as a visual interest replace river riparian and pine forest vegetation as the scenic byway climbs to higher elevations and the Feather River drops away from the highway out of sight. Open meadows and forest clearings offer intermittent glimpses of railway switchbacks as the railroad bed climbs up through steep and rugged mountainous and forested terrain with scattered meadows.

C1.3 Visual Analysis

The following sections characterize the visual nature of the project area surrounding the Proposed Action and the reasoning behind the conclusion that the Visual Resource would not be impacted or diminished by this fiber optic upgrade. The Plumas National Forest revised its land and resource management plan most recently in 1988. During that Forest Plan revision process, resource specialists utilized the National Forest Service's Visual Management System [VMS] to establish Visual Quality Objectives for scenic lands and viewsheds seen for important travel routes through the Plumas National Forest. Beyond establishing objectives for maintaining the quality of the scenery for visitors and travelers, the VMS is also intended to aid in analyzing potential impacts on scenery that might occur as a result of human development and resource management projects proposed on National Forests. In this visual analysis the aesthetic effects are considered for installing a fiber cable that would traverse lands within the Beckwourth Ranger District of the Plumas National Forest. Forest and project staff members have determined that the visual resource will not be affected by this utility upgrade. To justify this determination this report follows the Visual Management System protocols to analyze the aesthetic appearance and installation methodology of the fiber cable to demonstrate no impact to the scenery or

visual resource from the primary travel corridor's viewsheds within the Beckwourth Ranger District. Each component of the Visual Management System was considered and conclusions drawn as follows:

C1.3.1 Forest Service-Administered Lands with VMS Considerations

The Proposed Action traverses United States Forest Service lands that are mountainous and primarily densely forested with coniferous tree species. The existing utility line and route travel through an open yellow pine forest type moving into a mixed pine and fur forest type with intermittent high grass meadows. The existing route to be used essentially follows the Feather River Scenic Byway (California State Highway 70) which travels along the Wild and Scenic Feather River corridor. Additionally, the route is proposed within an existing power line corridor mostly nestled amongst a dense coniferous forest vegetation type. Conifer trees surround the corridor through mountainous ranger district terrain providing a foliage buffer that screens the state highway travel route from views of the power line. Developed access is maintained to the line via existing forest service system roads and power line maintenance roads. Forest Service access roads are primarily graveled and line maintenance roads are primarily dirt roads with vegetative re-growth. Power line roads are maintained under permit with the Plumas National Forest for the purpose of clearing trees and other vegetation away from power lines to maintain fire-safe and operable power line conditions.

The Plumas National Forest applied the Visual [Resource] Management System (VMS) to analyze and classify scenic qualities visible from within critical viewsheds along primary travel routes through the forest. Scenic river, riparian and mountain views of the Plumas National Forest are seen from viewsheds along Sate Highway 70 which is a travel route of primary importance because of its classification as the Feather River Scenic Byway. Public lands of scenic value within the Beckwourth Ranger District that can be viewed from this scenic travel route have been designated primarily Variety Class B-Common interspersed with Class A-Distinctive and Sensitivity Level 1-Highest Sensitivity and assigned Visual Quality Objectives of primarily Retention with small areas of Partial Retention. The existing power line and corridor that would house the proposed fiber cable essentially parallels the Feather River Scenic Byway through forest lands where the objective is to retain the existing scenic quality for scenic byway travelers. Therefore, the fiber cable aesthetics and installation methods must not impact the designated Variety Class or alter the Sensitivity Level or reduce the Quality Objective for forest lands seen from viewsheds along the Feather River Scenic Byway. A review of the Visual Management System analysis components demonstrates why the Proposed Action would not diminish the visual management designations for forest lands along the proposed project route:

C1.3.1.1 Character Type – Basin-Range

Character Type refers to "An area of land that has common distinguishing visual characteristics…" of land, rock, water and vegetative patterns. "Character types are used as a frame of reference to classify physical features of a given area as to their degree of scenic quality." The Character Type is a consideration when determining a site's Variety Class (discussed in detail below,) and is a descriptor of a large regional landscape that will not change regardless of human intervention or use of the landscape. It is a geological condition of the region it describes. The proposed fiber cable project route is located in the Northwestern 'Basin-Range' Character Type. (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg.5)

C1.3.1.2 Character Subtype – Rolling Plateau to Mountain Lands

"Character Subtypes are divisions of the major character types which are significantly different in visual characteristics from each other." (National Forest Landscape Management, Volume 2,

Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg. 6)

Rolling Plateau – Where the project route travels from Portola to Mohawk, it crosses through gradually rolling sage flats with forested edges around and west of Portola approaching high elevation, scenic open meadows around Mohawk.

Mountains Lands – From Mohawk to Quincy, the state highway travel route climbs in elevation into steep mountainous terrain as the Feather River drops away out of view from the travel route. The railroad infrastructure generally follows the river way also dropping away from the climbing highway and comes into view well below the road bed only where occasional switchbacks occur in the railroad bed as it hugs the mountain sides. The state highway climbs to Lee Summit roughly four miles west of the town of Cromberg. The power line follows the auto road alignment within an established corridor running generally parallel with and north of the highway. The corridor moves through the trees within a forested buffer positioned to the north side and above the roadbed with primary viewsheds appearing to the south and below the roadbed. The exception is a highway crossing that begins at Jackson Creek Picnic Area where the power line corridor currently travels to the south of the highway, past Cromberg, continuing on the south side toward Lee Summit and crossing back over to the north below the summit. This segment travels primarily through private lands and is visible at the two points where it crosses back and forth over the highway.

Conclusion: The Character Subtype is intended to further describe the Character Type in details specific to the place or project site and will not change regardless of human intervention or use of the landscape. The proposed fiber cable project route will travel through at least these two Subtypes.

C1.3.1.3 Characteristic Landscape – Open Flats to Forested

"The characteristic landscape is the naturally established landscape being viewed. It visually represents the basic vegetative patterns, landforms, rock formations and water forms which are in view." (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg. 7) Characteristic landscapes are smaller landscape areas visible within the landscape Character Subtype. The proposed project route travels an existing power line corridor through three obvious characteristic landscapes as follows:

Sage Flats – The eastern segments of the proposed fiber cable travel through open sagebrush flats in the foreground of State Highway 70 from the east-most junction at US 395 traveling west on non-USFS lands through Chilcoot, Beckwourth and Portola.

Open Forest Edge – Around Portola, the landscape evolves with willow vegetation at the edges of the sage flats and a yellow pine forest type in the distance to the west. The power line proposed to support a fiber cable remains on the sage flat following the road and railway in the foreground through the town and vicinity of Portola.

Mountainous Forest – West of Portola, the terrain develops into the 'Rolling Plateau' landscape Character Subtype. As the power line travels west through Mohawk and on to Quincy, it moves into mountainous and densely forested terrain. The existing power line corridor is screened from the auto roadway by a dense, coniferous forest buffer.

Conclusion: If the installation of the proposed fiber cable required expansive forest clear-cutting, the project could visually impact the characteristic landscapes to the west of Portola as the route travels through dense coniferous forests to Quincy. However, because the fiber cable can be installed by hanging it onto existing power poles it would travel across sagebrush flats along the

existing 69kV line and within an established utility corridor through mountainous and forested terrain with not new impact on the scenic route's existing vegetation patterns or rock and terrain features. Therefore, no visual impact would be made to the Characteristic Landscape.

C1.3.1.4 Distance Zones – Varied throughout Project Route

"Distance Zones are divisions of a particular landscape being viewed. They are used to describe the part of a characteristic landscape that is being inventoried or evaluated. The three distance zones are:" (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg. 7)

Foreground – Foreground features along the travel route vary from open sage flats with railroad tracks and power line infrastructure and the meandering Feather River in view to open forest and interspersed high meadows to dense coniferous forest.

Middle-ground – Middle-ground features along the travel route vary from Feather River willow riparian and expansive sage flat to open forest and some high meadow. The railroad bed tends to hug the river course and moves in and out of middle-ground wherever the river moves away from or back to the highway corridor.

Background – Background features along the travel route mostly include changing forest types and include both open and dense forest textures. Backgrounds of forested terrain and mountainous landforms shift from more open yellow pine forest type east of Lee Summit into more dense forest of a mixed conifer type with both pine and fur species west of Lee Summit. The railroad bed moves into background where it follows the Feather River dropping temporarily below the travel corridor before climbing away from the river and out of the mountainous terrain again.

Conclusion: Because the fiber cable is proposed to hang from the existing power line, this project will not change the current distances from which travelers are viewing the existing utility line and infrastructure from the State Highway 70 primary travel route. Because the black color of the line's conduit can merge with black shadowing of the conifer forest vegetation type and because the fiber optic cable will parallel and mimic the horizontal line pattern of existing phone and electrical lines, currently-tolerated views of existing power lines will not be altered noticeably.

C1.3.1.5 Dominance Elements – Strongest to Weakest

"An observer sees landscapes in terms of form, line, color, and texture." Dominance elements are the individual visible parts of a characteristic landscape that are easily recognized and simple to describe using these four primary concepts. *"The potential visual strength of each dominance element over the broad spectrum of [the] landscape [being analyzed] varies."* To prevent a visual impact, a new element introduced into the landscape should not dominate existing forms, lines, colors and textures currently viewed within the terrain. (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg. 8)

Form – The mountainous backdrop throughout the project route provides the landscape's primary form.

Line – The trees of this forested or forest edge landscape provide vertical lines and the open sage flats and the existing roadway, railroad and utility line infrastructures provide the horizontal lines of the landscape along the project route. The feather river occasionally provides a meandering line.

Color – Distinctive vegetation such as occasional bitterbrush shrubs amongst the primarily sagebrush flats or riparian willows contrasted against a dark green coniferous forest backdrop provide color variation to attract the viewer's eye within this landscape of varied plant colors. Black as the absence of color is typically neutral and easily absorbed into a landscape with other dark and/or contrasting colors.

Texture – The sagebrush flats, coniferous forest stands and collections of

buildings and structures associated with town sites provide the textures along the project route. The any texture of the railway, river and utility corridor is subordinate to the dominant visual lines these features provide.

Conclusion: Because the proposed fiber cable would not require a new route or corridor to be established, its installation would not change or dominate the textures within the landscape. Because the fiber cable would be hung on and run parallel to cables of an existing power and phone line, it would utilize the form and follow the line pattern of the existing utility infrastructure. It would match black coloring of the existing phone line below which it would hang. The proposed fiber optic utility would mimic existing utility form, line, color and texture that have already been accepted and absorbed into the landscape along state highway 70. Therefore, the fiber cable would not present a newly dominant feature in the landscape and would be subordinate to existing utility infrastructure.

C1.3.1.6 Management Activities–Varied depending on Dominance Element

"A management activity is any activity of man imposed on a characteristic landscape. It is seen in terms of form, line, color, and texture." (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg.8)

Form – The mountainous terrain provides the primary landscape form viewed by travelers along the State Highway 70 corridor west of Portola to Quincy, California.

Line – Conifer trees provide the primary vertical line features in this landscape with a yellow pine forest type west of Portola to Lee Summit shifting to mix coniferous forest type of pine and fur traveling west to Quincy. Open Sage flats around Portola provide horizontal landscape line where viewed against the forested mountain backdrop. And besides the roadway itself, the railroad track and Feather River also provide horizontal line features in the landscape where they are seen intermittently paralleling the highway corridor. The existing power line provides both vertical and horizontal line features whenever seen following the railroad bed on open sage flats between Portola and Blairsden. However, where the utility corridor crosses into forested Beckwourth Ranger District lands, the dense conifer forest buffer provides a visual screen between the existing power line infrastructure and corridor and the highway corridor.

Color – The primary landscape colors of the area are greens and browns. Sagebrush flats display sage-green and grey-green colors turning seasonally to yellow-gold and tan or beige. Coniferous forests display black shadowing amongst dark olive green or blue-green foliage and dark brown, rust or grey of the tree trunks and woody bark. Existing human infrastructure such as the highway, railroad bed and power line with poles display black, charcoal, grey, and brown coloring.

Texture – Coniferous forest cover provides a primary bold texture of rough tree boughs along most of the travel route within the section of the proposed project. Sagebrush flats and open high meadows provide secondary fine textures of grass blades and lacey sage and bitterbrush foliage while sporadic middle-ground blocks of riparian willows occasionally display a third, coarse texture from upright branching habit.

Conclusion: Because the proposed project aims to utilize the existing management activity of maintaining and upgrading the existing power and communications line and corridor, management activities would not alter forms, lines, colors or textures displayed within the existing landscape. The proposed fiber cable installation would follow and mimic the current forms and lines established by the existing utility and match the black color of existing cables with no change to or affect on surrounding landscape forms, lines, colors or textures.

C1.3.1.7 Variety Class – Class A, Distinctive and Class B, Common

"Variety Classes are obtained by classifying the landscape into different degrees of variety. This determines … value from the standpoint of scenic quality. The classification is based on the premise that all landscapes have some value, but those with the most variety or diversity have the greatest potential for high scenic value. There are three variety classes [A, B and C,] which identify the scenic quality of the natural landscape." The class of a landscape is determined by evaluating the existence or predominance *and* visual importance of the following features within a given landscape: (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pp. 11-15)

Landform – The primary landform of the project area is the mountainous terrain.

Rock Form – There are some distinctive but rugged rock forms along the project route's mountainous and often steep terrain that provide visual interest amongst vegetation patterns.

Vegetation – The primary vegetation types are sagebrush flats, riparian willow edges, open yellow pine forests, high grass meadows and mixed conifer forests.

Water Forms, Lakes – No 'Lake' water forms exist along the project route.

Water Forms, Rivers – The water form along the project route is the Feather River which presents a meandering line that roughly parallels the highway travel corridor. It is intermittently visible to travelers along much but not all of this scenic byway corridor and is seen to the south side of the roadway. The river drops completely out of view below the highway before Lee Summit and is not visible along the highway from Lee Summit into Quincy.

Although the project route roughly follows the Feather River Scenic Byway, the segment of scenic byway views potentially affected is limited to national forest lands seen from the travel route between Portola and Quincy, California. The landscapes along this particular segment of the Feather River Scenic Byway display primarily a *Variety Class B, Common* which: *'Refers to the areas where features contain variety in form, line, color and texture or combinations thereof but which tend to be common through the character type and are not outstanding in visual quality.'* (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg.12) There are also interspersed vegetation patterns and terrain and rock forms that elevate limited views to *Variety Class A, Distinctive* which: *'Refers to those areas where features of landform, vegetative patterns, water forms and rock formations are of unusual or outstanding visual quality. They are usually not common in the character type.'* (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg.12) Even along a scenic byway, to receive a *Variety Class A, Distinctive* designation for the length of the route, landscape features along the byway need to consistently be *'of unusual or outstanding visual quality'* such as an individual mountain, waterfall or lake known as a national landmark. Distinctive view points along the Feather River Scenic Byway are a result of highly scenic views of the river and visual variety created by the rugged terrain. Although features and views of this caliper exist along the Feather River Scenic Byway, they are limited and infrequent within the segment of the proposed fiber optic cable installation project.

Conclusion: Because the proposed fiber cable installation project will cause no new disruption of the landforms or vegetation patterns along the project route and because it will not disturb or alter any rock or water forms, the Variety Classifications would be maintained undisturbed.

C1.3.1.8 Sensitivity Level – Level 1, High Sensitivity

"Sensitivity Levels are a measure of people's concern for the scenic quality of the National Forests." (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pp.17-25) Scenic viewsheds seen from important travel corridors are mapped under the Visual Management System for sensitivity level to the typical traveler or viewer. Sensitivity levels represent the degree of importance an area of scenery may have to the typical viewer and indicate how concerned a forest user would be about human-introduced changes to the landscape. The sensitivity level combines both degree of importance and user concern for a given landscape. The sensitivity level is additionally affected by three (3) types of viewing distant zones identified in the Visual Management System as 'Foreground', 'Middle-ground' and 'Background'. (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pp. 22-25) The viewer's sensitivity level to changes in the landscape can vary depending on the distance from which the scenic landscape is viewed and regardless of the concern level.

Sensitivity Level Description:
The section of State Highway 70 scenic byway that the proposed fiber cable will roughly parallel through the Beckwourth Ranger District includes the Sensitivity Level 1 designation meaning that it is a *'travel route'* of *'national importance'* and of *'major concern for aesthetics … by people who are driving for pleasure'* because of its *'Scenic Byway'* designation. It is also Sensitivity Level 1 because of its *'high use volume'* for the area in which it is located and the continual scenic designation for a significantly *'long use [or] duration'* of highway. There are also *'forest land access roads'* and recreation facilities available off this travel route. (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pp.18-19 & Charts pp. 18 & 21) Essentially, people from all over the nation travel the route anticipating a national forest experience and expecting to see scenic landscapes. The level of use or importance of the state route through the Plumas National Forest combined with the level of user concern for the scenic quality along the route and considering various viewing distances were combined to determine Sensitivity Level 1 along the proposed project route.

Fiber Optic Cable Impact Analysis:
Of greatest concern are *'foreground'* to *'middle-ground'* viewing distances that could be altered or visually impacted by the installation of new infrastructure. The power line to be utilized crosses the highway at four (4) specific points along the route segment proposed to receive fiber optic cable. These would be the visible locations of the proposed cable that have the potential to impact viewer sensitivity. However, existing infrastructure is currently visually accepted at these highway crossings along the route. The proposed cable would also have a black coating that would prevent a reflective surface from attracting viewer attention to the cable. The small, 1.25-inch diameter of the cable is subordinate to significantly larger diameter power lines. Further, the cable would be hung below existing power cables but the six-foot distance between fiber and power cables would be half to one third the distance of the fiber cable to the horizontal ground plane. This closer distance to existing cables than to traveling surface may aid in visually grouping the proposed cable with existing infrastructure elements and in reducing the perception that a new horizontal line has been introduced into the landscape.
Conclusion: Because the installation of a proposed fiber optic cable onto existing power line poles would be subordinate to at least three (3) cables already strung from the line and in view of the travel corridor at established highway crossing points, the fiber cable would not distract the viewers eye beyond the level experienced with existing and permitted infrastructure. Because the installation of a black fiber optic cable in a diameter subordinate to existing power cables would not recognizably alter the form of the power line or change its location within the landscape, the

views of the scenery along the route would not be diminished or visibly impacted from any distance zone. The sensitivity levels along this route of Level 1 traveler importance and concern would not be affected by the proposed project.

C1.3.1.9 Quality Objective - Retention:

Visual Quality Objectives represent measurable standards of managing the visible or scenic quality of National Forest public lands so as to recognize scenery as a human-valued resource within protected and managed public lands. Quality objectives are determined relative to the combination of the Variety Class and the Sensitivity Level first determined for a given area of scenic landscape. *"Except for [the] preservation [quality objective], each [quality object] describes a different degree of acceptable alteration of the natural landscape based upon the importance of aesthetics. The degree of alteration is measured in terms of visual contrast with the surrounding natural landscape."* (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pp. 27-39) The *'Quality Objective'* of *'Retention'* is the primary visual management objective assigned for maintaining the scenery along State Highway 70-The Feather River Scenic Byway as it travels through Beckwourth Ranger District lands located between Portola and Quincy.

Management Objective Definition:

'Retention' means that human introduced changes or activities must not alter - or may only temporarily alter - the scenic quality of a landscape that is being managed to retain its natural landscape characteristics. Management activities may occur but must *'not [be] visually evident.'* Newly introduced forms, lines, colors or textures associated with project actions must not contrast with the existing landscape. Introduced changes should *'repeat'* existing forms, lines, colors and textures and alterations to the style or quality of these four characteristics should be avoided and not noticeable. (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pp. 28 & 30-31)

Duration of Visual Impact:

Impacts associated with landscape alterations should be reduced or restored during or immediately following the management or development operations so that the *'Retention'* object is met as a project outcome. (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pg. 30)

Conclusion: Because the installation methods planned for the proposed project include no timber or road cuts that would otherwise alter or damage landscape forms, lines, colors or textures, the Proposed Action would not impact the *'Characteristic Landscape'* from any of the three *'Distance Zones'* for viewing scenery. With no anticipated impact to the *'characteristic landscape'*, the *'Retention'* visual quality objective (VQO) designated along most of the route would be maintained.

C1.4 Summary and Conclusion

C1.4.1 Summary

Plumas National Forest landscapes along the route of the proposed project pass through the Beckwourth and Mt. Hough Ranger Districts and are viewed from the State Highway 70 travel route which has been designated the Feather River Scenic Byway. The Visual Quality Object assigned to viewsheds seen from

this scenic byway is Retention. The Visual Quality Objective of Retention directs forest managers to retain the existing character of the landscape.

Management activities occurring within scenic viewsheds of a *'Retention'* area are allowed when the level of change to the characteristic landscape is minimal and when the changes *'are not visually evident.'* The resulting change to the landscape must repeat form, line, color and texture of the surrounding *'characteristic landscape'*. *'Duration'* of the visual impact must be limited because the *'Retention'* visual quality object (VQO) must be met during or immediately following the Proposed Action as an essential aim of the Proposed Action's operations plan. (National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System, USDA Forest Service, Agriculture Handbook Number 462, 1976, pp. 7, 28 & 30-31)

C1.4.2 Conclusion

The Proposed Action to install fiber cable encased in a one-inch diameter black cable that traverses approximately 13 miles through lands within the Beckwourth and Mt. Hough Ranger Districts would have no adverse impact on the surrounding visual resources of the Plumas National Forest for the follow reasons:

C1.4.2.1 Level of Dominance within the Characteristic Landscape:

The proposed fiber optic cable would be hung onto existing power line poles and would repeat the form, line, color and texture of existing power line infrastructure that is permitted to traverse national forest lands. Additionally, the proposed cable would be visually subordinate to power lines and to the forms, lines, colors and textures of the surrounding characteristic landscape.

C1.4.2.2 Impact of Distance Zones from which Project may be Viewed:

For most of the route on national forest lands, the fiber optic cable would be screened from view of the Feather River Scenic Byway at middle-ground and background distances by a dense buffer of mixed coniferous forest cover. Where the power line currently crosses the scenic byway at four locations, it brings the cable essentially into a foreground viewing position. However, the visually subordinate size and color of the proposed cable and its position on existing power poles would repeat surrounding lines and colors allowing it to be absorbed into the existing landscape setting.

C1.4.2.3 Effects of Project Installation and Management Activities:

By utilizing existing power poles and the existing power line corridor to install the proposed cable, the project operations would avoid trenching, timber cuts and vegetative disturbance that would typically be evident within the characteristic landscape. By accessing the project route from forest service system roads and permitted power line maintenance roads, terrain and vegetative scarring that occurs with new road cuts would be avoided all together. Tree clearing that occurs on national forest lands during this project must be identified through a tree inventory and power pole maintenance plan. Vegetative clearing is allowed by the Forest Service as necessary for regular and permitted power line maintenance. Because the project installation procedures are proposed to operate within power line maintenance protocols, management activities associated with the Proposed Action would not impact or alter the characteristic landscape.

C1.4.2.4 Impacts to Variety Classes, Sensitivity Level and Quality Objective:

Because the proposed fiber optic cable would be subordinate in size, repeat line and color, and maintain the form of existing features in the viewed landscape it would not present a newly contrasting feature within the surrounding natural landscape. The designated landscape Variety Classes would not be altered. The non-reflective color and surface material of the proposed cable

along with its small diameter would prevent the fiber cable from presenting a visual distraction to scenic byway viewers particularly where the cable crosses the highway. The High Sensitivity-Level 1 of the scenic byway would remain undisturbed. By using existing access roads, the maintained utility corridor and existing power poles to hang and maintain the proposed cable, the management activity would not be evident in the landscape and there would be no duration of visual impact. The Visual Quality Management Objective of Retention would be met and maintained during and after project operations as proposed.

C1.4.2.5 Final Summary:

Because the fiber optic cable can be installed onto existing and permitted power line poles using access roads and crews on foot, the installation operations can avoid damage to terrain and vegetation seen from the scenic highway travel corridor. Because the management activity should not be at all evident in the landscape, all Variety Class and Sensitivity Level designations along the Portola-to-Quincy segment of the Feather River Scenic Byway can be maintained undisturbed. Because characteristic landscapes and critical viewsheds would not be visually impacted, the primary Visual Quality Object of 'Retention' for this segment of scenic byway through national forest lands can be maintained throughout the duration of the proposed cable installation project. The Feather River Scenic Byway scenic viewsheds would remain unaltered as a result of this Proposed Action.