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## 3.2 Aesthetics

This section identifies and evaluates issues related to Aesthetics in the context of the Project and alternatives. It includes information about the physical and regulatory setting and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The information and analysis presented in this section are based in part on the Visual Resources Technical Report provided in **Appendix A, Aesthetics**. The County independently reviewed this and other materials prepared by or on behalf of the Applicant and determined them to be suitable for reliance on (in combination with other materials included in the formal record) in the preparation of this Draft EIR.

The County received scoping input about aesthetic and visual resources. All scoping input received, including regarding aesthetic and visual resources, is provided in Section 4.1 of the Scoping Report, a copy of which is provided in **Appendix J, Scoping Report**.

### 3.2.1 Visual Concepts and Terminology

Individuals' values, familiarity with a landscape, concern for a landscape, or interpretation of scenic quality can lead to varying individual determinations of scenic quality and varying individual responses to changes made to a landscape. Due to unique individual attachments to values for a particular landscape, visual changes will inherently affect viewers differently. However, general assumptions can be made about viewer sensitivity to scenic quality and visual changes. For the purpose of this analysis, visual or aesthetic resources are defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of a given environment. Definitions of the following terms and concepts are provided in order to aid the readers' understanding of the content in this section. The following definitions are adapted slightly from the Federal Highway Administration *Guidelines for the Assessment of Highway Projects* (FHWA, 2015).

**Visual Character** is a description of the visible attributes of a scene or object typically using artistic terms such as form, line, color, and texture.

**Visual Resources** can be either natural visual resources such as land, water, and vegetation. Visual Resources that are primarily geological or biological in origin are considered natural.

**Cultural Visual Resources** can include buildings structures, and artifacts. Generally, visual resources that are manmade are considered cultural visual resources. Land, water, and vegetation may contribute to the importance of cultural visual resources.

**Visual Quality** is defined as the overall visual impression or attractiveness of an area as determined by the particular landscape characteristics, including landforms, rock forms, water features, and vegetation patterns. The attributes of line, form and color combine in various ways to create landscape characteristics whose variety, vividness, coherence, uniqueness, harmony, and pattern contribute to the overall visual quality of an area. Different viewers may evaluate visual resource differently depending on their interests in natural harmony (generally harmony is considered

desirable; disharmony is undesirable), cultural order (orderly is considered desirable; disorderly is undesirable) and project coherence (coherent is considered desirable; incoherent is undesirable).

**Viewer Exposure** addresses the variables that affect viewing conditions from potentially sensitive areas. Viewer exposure considers the following factors:

- Landscape visibility (i.e., the ability to see the landscape)
- Viewing distance (i.e., the proximity of viewers to the Project)
- Viewing angle – whether the Project would be viewed from above (superior), below (inferior), or from a level line of sight (normal)
- Extent of visibility – whether the line of sight is open and panoramic to the Project area or restricted by terrain, vegetation and/or structures
- Duration of view

**Viewer Types and Volumes** of use pertain to the types of use (e.g., public viewers including recreationalist and motorist) and amounts of use (e.g., number of recreational users or motorists) that various land uses receive. Generally, recreational users are expected to be highly concerned with scenery and landscape character whereas people who commute through a landscape daily to work are expected to have a lower concern for visual, scenic quality.

**Visual Sensitivity** is the overall measure of an existing landscape's susceptibility to adverse visual changes. People in different visual settings, typically characterized by different land uses surrounding a project, have varying degrees of sensitivity to changes in visual conditions depending on the overall visual characteristics of the place. In areas of more distinctive visual quality, such as designated scenic highways, designated scenic roads, parks, and recreation and natural areas, visual sensitivity is characteristically more pronounced. In areas of more indistinctive or representative visual quality, sensitivity to change tends to be less pronounced, depending on the level of visual exposure. This analysis of visual sensitivity is based on the combined factors of visual quality, viewer types and volumes, and visual exposure to the Project. Visual sensitivity is reflected according to high, moderate, and low visual sensitivity ranges.

Definitions for the following terms also are provided as they are used to describe and assess the aesthetic setting and impacts from the Project and alternatives.

**Color** is the property of reflecting light of a particular intensity and wavelength (or mixture of wavelengths) to which the eye is sensitive. It is the major visual property of surfaces.

**Contrast** is the opposition or unlikeness of different forms, lines, colors, or textures in a landscape. The contrast can be measured by comparing the project features with the major features in the existing landscape.

**Form** is the mass or shape of an object or objects which appear unified.

**Vividness** is the strength of memorability of the visual impression created by the visual elements that create the visual character of a landscape.

**Unity** is the degree to which the visual resources and elements of the landscape join to form a coherent, harmonious visual pattern.

**Intactness** refers to the integrity of visual order in the natural and human-built environment.

**Texture** is the visual manifestations of the interplay of light and shadow created by the variations in the surface of an object or landscape.

**Line** is the path, real or imagined, that the eye follows when perceiving abrupt differences in form, color, or texture. Within landscapes, lines may be found as ridges, skylines, structures, changes in vegetative types, or individual trees and branches.

**Landscape Unit** refers to an area with similar visual features, a homogenous visual character, and frequently a single viewshed, or “seen” area.

A **Key Observation Point (KOP)** is a viewpoint selected for use in a visual impact analysis because it is either critical or representative of the visual character of either the environment of the project. KOPs for this Project are shown in **Figure 3.2-1, Project Location, Visual Resources, and Key Observation Points.**

**Character Views** are not relied upon in the formal visual analysis as a KOP but rather serve to supplement discussions of existing visual character.

**Scenic vista** is an area that is designated, signed, and accessible to the public for the purposes of viewing and sightseeing.

A **scenic highway** is any stretch of public roadway that is designated as a scenic corridor by a federal, state, or local agency.

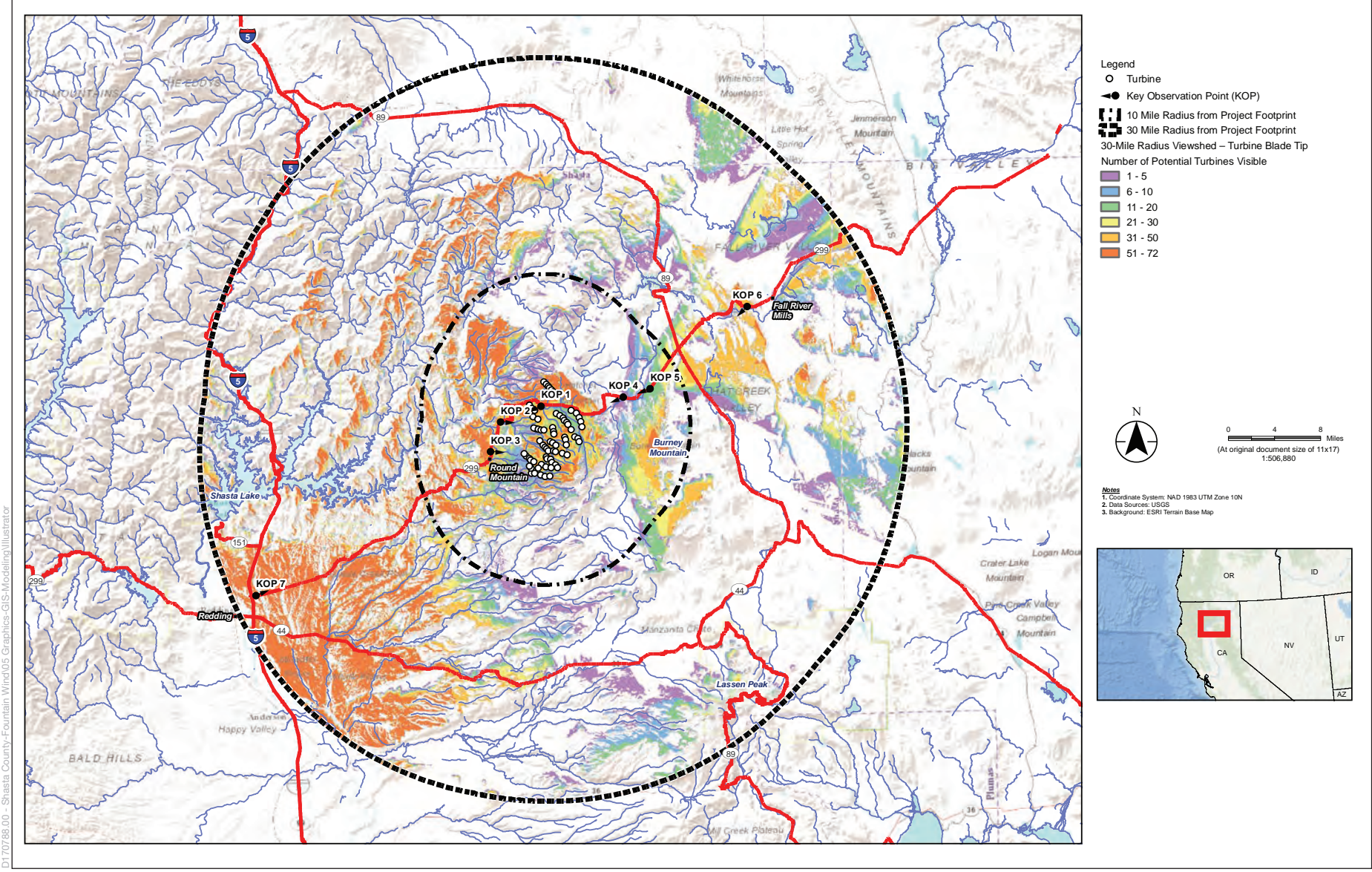
**Sensitive receptors or sensitive viewpoints** include individuals or groups of individuals that have views of a site afforded by a scenic vista, scenic highway, residence, or public recreation area.

The **viewshed** for a project is the surrounding geographic area from which the project is likely to be seen, based on topography, atmospheric conditions, land use patterns, and roadway orientations.

## 3.2.2 Setting

### 3.2.2.1 Study Area

The study area for this visual resources analysis is consistent with the study area defined in the Visual Resources Technical Report. i.e., the presumed maximum viewshed for the Project, including the areas within which the Project is likely to be seen, and the areas of presumed or known visual concern. As an example, for an on-shore, utility-scale wind energy project, the viewshed is typically the area within a 10- to 20-mile radius of the Project. The topography of the region (a mountainous project location with valley regions both east and west of the Project Site and elevated areas with direct lines of sight to the east) and the size of the Proposed turbines could result in a greater amount of visibility of the Project and, therefore, a larger theoretical



SOURCE: Stantec

Fountain Wind

**Figure 3.2-1**  
Project Location, Visual Resources,  
and Key Observation Points



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viewshed than for other wind projects. Additionally, scoping comments received from the public discussed the long range views available from the Sacramento Valley of the Project Site and mountains to the east. As a result, the study area was increased to include a 30-mile radius from the Project Site for this analysis.

Within this 30-mile radius, the landscape character varies widely based on the topography, landscape character, and land uses. Therefore, within the Visual Resources Technical Report, three distinct landscape units were defined in order to inform a selection of viewpoints which are representative of diverse views within the study area. These landscape units include the Mountain Communities, Hat Creek and Pit River, and Sacramento Valley.

### 3.2.2.2 Environmental Setting

This section discusses the environmental conditions related to aesthetics within the study area defined above. It summarizes setting information provided in Appendix A. Information in the appended technical report is re-ordered within this section to flow geographically west to east. Therefore, the numbering of some KOPs and Character Views is not presented sequentially.

#### ***Representative Viewpoints***

Visual resource specialists from Stantec Consulting Services, Inc. (Stantec) conducted two site visits where they collected photographs of the Project Site from 37 viewpoints including viewpoints from representative or visually sensitive areas within the study area. Photographs from additional viewpoints were collected to account for potentially sensitive receptors and views identified as particularly sensitive during the public scoping period. From this set of 37 viewpoints, Stantec then coordinated with Shasta County to identify seven views that are representative of the range of viewer sensitivities, landscapes, and land uses in the Project viewshed. Appendix G of the CEQA Guidelines suggests that an aesthetics analysis analyze impacts to public views, and defines public views as “those that are experienced from publicly accessible vantage points.” Consistent with CEQA’s focus on potential impacts to the public at large rather than to individual members of the public, and consistent with the definition provided in the CEQA Guidelines, the seven viewpoints selected for more detailed consideration in the technical report represent publicly accessible views and locations; they do not assess visual impacts to private views. The locations of each of these seven KOPs are demonstrated on Figure 3.2-1 and in other figures that have been brought forward from the technical report with naming intact for ease in cross-referencing should readers elect to refer to Appendix A for additional detail. To view the 7 KOP locations, see **Figure 3.2-2, Character Views 5 and 6**, and **Figure 3.2-3, Character Views 1 and 2**. Additionally, from the 37 viewpoints originally photographed, Stantec identified views from six locations in the different landscape units that represent the visual character typical of views within each landscape unit.

Environmental conditions include the regional and local visual environment organized according to the distinct landscape units described above- the Sacramento Valley, Mountain Communities, and Hat Creek and Pit River area. Other components of environmental conditions include sources of light and glare within the Project Site; sensitive visual receptors; visual quality of the study area; KOPs selected to determine existing environmental conditions; and to assess impacts of the



Character View 5: View from eastbound SR 299, just east of Bella Vista. Urban and suburban development, rangelands, foothills, and mature trees are typical of the visual character east of Redding. Hatchet Ridge Wind project turbines are faintly detectable along the ridgeline in the left side of the view.



Character View 6: View from Hilltop Drive facing east, just east of I-5 in Redding. Burney Mountain is visible in the right side of the view, approximately 41 miles away. Hatchet Ridge Wind turbines are detectable along the ridgeline in the left of the view, approximately 36 miles away.

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SOURCE: Stantec

Fountain Wind

**Figure 3.2-2**  
Character Views 5 and 6



Character View 1: View along eastbound SR 299, approaching Hatchet Summit from the west. Hatchet Ridge Wind project turbines are visible to the northeast; however, most views from the highway corridor are obstructed by trees.



Character View 2: View along westbound SR 299, near the community of Johnson Park and just east of the SR 299 / SR 89 junction. Trees line the highway corridors throughout this area, which narrows or eliminates views to the west.

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SOURCE: Stantec

Fountain Wind Project  
**Figure 3.2-3**  
 Character Views 1 and 2





Project and alternatives. This environmental setting section and the following analysis analyze the existing visual quality and potential Project impacts to views from publicly accessible viewpoints and does not consider the impacts to private views or the views from individual residences.

**Table 3.2-1, Key Observation Points**, outlines the three landscape units, the KOPs located in each landscape unit, typical viewers at each KOP, and the distance from each KOP to the Project Site.

**TABLE 3.2-1  
 KEY OBSERVATION POINTS**

Landscapes/KOP	Distance from Nearest Project Turbine (miles)	Visual Resources	Typical Viewer
<b>Mountain Communities</b>			
KOP 1	0.8	Designated overlook just off of SR 299	Residents, tourists
KOP 2	3.1	Elementary school	Residents, tourists, commuters, workers
KOP 3	3.1	Hill Country Clinic/ Community Center	Residents, tourists, commuters, workers
KOP 4	4.5	Rural mountain landscape	Tourists, commuters, workers
KOP 5	7.1	Main population center east of Project	Residents, tourists, commuters, workers
<b>Hat Creek and Pit River</b>			
KOP 6	18.6	Eligible State Scenic Highway	Recreationists, tourists, commuters
<b>Sacramento Valley</b>			
KOP 7	27.8	Main population center west of project	Residents, tourists, commuters, workers

Ownership in the surrounding Trinity and Cascade ranges is a mix of both private and public ownership including both state and national forest land. Land uses in this area primarily consist of timber production, rangeland, open space and recreation, and rural land uses. Designated recreation areas in the area include McArthur-Burney Falls (approximately 12.5 miles from the Project Site) and Ahjumawi Lava Springs State Parks (approximately 26 miles from the Project Site), Lassen Volcanic National Park (approximately 21.5 miles from the Project Site), Whiskeytown-Shasta-Trinity National Recreation Area (approximately 35 miles from the Project Site), and the Pacific Crest National Scenic Trail (approximately 21 miles from the Project Site).

**Viewer Sensitivity**

**Residential Viewers**

Residential neighbors live within viewing distance of the Project. The visual preferences of residents tend toward a desire to maintain the existing landscape as it is. Depending on their location, residential neighbors often are interested in cultural order and natural harmony with less emphasis on project coherence unless it affects their ability to appreciate the other two aspects of visual quality.

### **Recreational viewers**

Recreationalists may participate in organized activities, indoor or outdoor leisure activities or cultural activities. The visual preference of recreationalists tends to be focused on and associated with their recreational activity. They tend to prefer the status quo and are leery of visual encroachments that may cause adverse effects on the setting of their activity. Depending on the type of recreation, recreational neighbors are very interested in cultural order and natural harmony, with some emphasis on project coherence as it affects their experience traveling to their recreational activity.

### **Tourists**

Tourists travel on a highway, primarily for enjoyment usually to a pre-determined destination. Tourist trips tend to be more adventuresome, cover longer distances, and take more time than commuting trips. Tourists frequently travel in groups with both a driver and passenger(s), and are equally interested in project coherence, cultural order, and natural harmony.

### **Workers**

Viewers of a project can include agricultural neighbors, timber workers, or construction workers who spend time outside. Some workers are permanent; many are migratory but may return to the same area again and again over the years. Outdoor workers regard cultural order and natural harmony as critical components of the landscape. They are less interested in project coherence.

### **Commuters**

Commuters are regular travelers of the same route. The frequency of the travel may vary, but there tend to be peaks- such as morning and evening rush hours and holidays. Commuters, like all travelers are particularly interested in project coherence. They are also interested in cultural order and natural harmony to the extent that it contributes to wayfinding.

With regard to viewer sensitivity, residents, recreationists, and tourists are assumed to have moderately high to high sensitivity to visual change, based on the context of specific views. Workers and commuters are assumed to have more moderate sensitivity to visual change.

### ***Sacramento Valley Character***

The Project Site is located in rural, unincorporated Shasta County, approximately 28 miles northeast of Redding. Within the region, Redding is the largest city at the northern end of the Sacramento Valley, approximately 26 miles southwest of the Project Site. Communities in the region generally are located along the main transportation routes of Interstate 5 (I-5) and State Route (SR) 299. The major north-south route in the region is I-5, a four-lane divided highway located approximately 28 miles west of the Project Site. SR 299 runs east to west from the valley floor into the Cascade Range, climbing in altitude as it passes through the foothills into the mountains. The City of Redding area has a relatively flat topography and includes primarily a mix of commercial/institutional development in the downtown area west of the Sacramento River and mix of commercial development in the central business district east of the river. The outer ring region of both downtown and central business district is developed primarily with single-family

residential development. Surrounding communities in the valley (such as in the greater Anderson, Redding, and Shasta Lake areas, Cottonwood, and Palo Cedro) consist of a mix of rural agricultural, residential, commercial and industrial development. The community of Bella Vista is located east of Redding in the transitional foothills between the valley and the Cascade Mountains. Development in Redding and the surrounding area includes built features such as structures, and vertical and linear features such as light poles, transmission lines, and roadways. These features occasionally block views of the surrounding foothills and mountains.

Due to the low elevation of the valley floor, views of the Cascade Range and Trinity Mountains are available from Redding and the surrounding areas. From many locations in urban Redding, views to the east are blocked by structures and vegetation; however, from some locations in urban Redding, the mountains to the east can be seen as a mostly uninterrupted skyline with rangelands and foothills in the foreground (see Figure 3.2-2, *Character View 5*). The Hatchet Ridge Wind Project turbines are faintly visible from along the ridgeline in these views. Visual character within this landscape unit is defined by the urban and suburban development surrounding Redding and the ridgelines and forms of surrounding mountains.

Redding is the largest population center near the Project Site, and viewer types present in the landscape unit including residents, workers, travelers, and commuters. Views toward the Project within this landscape unit would primarily be brief and intermittent along roads. More sustained views within this landscape unit may be accessible for pedestrians or cyclists traveling east along roadways or from stationary locations such as parks.

KOP 7 is located within the Sacramento Valley and represents views from Redding toward the Project Site, located 28 miles to the east. The viewpoint is located along a bike path near the eastbound lanes of SR 299, just under 0.5 mile east of I-5. Nearby neighborhoods are obscured by dense trees. Built features such as signage, light poles, and transmission and distribution lines, roads and other development. Sources of nighttime lighting in this view would include the Hatchet Ridge turbines, light poles, surrounding development, and cars traveling on SR 299 and I-5. Views such as those represented by KOP 7 would primarily be experienced by residents, workers, and travelers and commuters.

### ***Mountain Communities Character***

This landscape unit includes the portion of the study area between the foothills east of Bella Vista and SR 89 east of the Project Site. The Project Site is located entirely within this landscape unit. The Lassen National Forest is located southeast of the Project Site while the Shasta-Trinity National Forest is to the north. Other surrounding lands are privately owned. Many are used for timber harvesting purposes. The Project Site is located near the private recreational facility of Moose Camp in which approximately 75 members use 50 cabin residences year-round. Because Moose Camp and the leasehold area in which the Project Site is located are privately owned, publicly accessible views are not available from these areas. Most of the project vicinity is densely forested with pine, mixed conifer, fir forests, montane chaparral, and forest scrub which limits views of surrounding areas.

From the valley to the Cascade Range to the east, the mountains become larger, the vegetation transitions to mixed conifer forests, and the topography transitions to a mix of steep ridges, buttes, and peaks separated by small valleys. Small, rural communities such as Round Mountain, Montgomery Creek, and Burney are located intermittently along SR 299. SR 299 winds through these communities and offers intermittent views of the mountains and valleys. The densely vegetated areas of the forest are interrupted by burn scars from fires, timber clearcuts, and nearby rural communities. Depending on the location of the viewer, views range from enclosed due to the topography and vegetation to expansive views of rolling vegetated mountains in the foreground to snowcapped peaks in the distance. Views from publicly accessible locations near the Project Site contain ridgelines and slopes of varying grades with partial to complete coverage of evergreen trees. Dispersed residences are visible between communities and managed timberlands and lumber manufacturing facilities and associated infrastructure and roads are visible between towns. The existing Hatchet Ridge turbines are visible along the ridgelines from various vantage points throughout this landscape unit (see Figure 3.2-3, *Character Views 1 and 2*). Sources of nighttime lighting include surrounding rural development, traffic along SR 299, and the safety lighting on the existing Hatchet Ridge turbines.

Within the Mountain Communities landscape type, the visual character is defined by ridgeline forms visible above and beyond vivid evergreen trees. Human elements such as linear roadways, utility poles, transmission corridors, timber operations and the wind turbines also shape the visual character and introduce an element of contrast with the otherwise natural environment. Typical viewers within this landscape unit include tourists who may be seeking out vista views or traveling to recreational destinations as well as commuters, workers, and residents within the region. Views in this landscape unit would primarily be brief and intermittent as travelers drive through the landscape along SR 299. The designated Fountain Fire Overlook (KOP 1) provides sustained, contemplative views. Additionally, informal pullouts along SR 299 and other community resources such as schools and community centers may provide sustained views.

KOP 1 through KOP 5 are located within this landscape unit. KOP 1, the Fountain Fire Overlook, is a designated viewpoint commemorating the 1992 Fountain Fire which burned approximately 64,000 acres in the area. The majority of the land visible from this KOP is privately owned and there is active logging in the area. The types of development visible to viewers from this KOP include managed timberland and associated roads and infrastructure comprise the majority of development between towns and communities.

KOP 2 in Montgomery Creek and KOP 3 in Round Mountain are representative of views to the east from the western slopes. These locations provide intermittent views of the nearby ridgelines and developed communities. Certain portions of SR 299 are located in areas where more expansive views are available as shown in KOP 4. However, most views along SR 299 in this region are enclosed by trees and structures. The views shown in KOP 5, located in Burney, demonstrates the presence of intervening elements from an urbanized environment.

### ***Hat Creek and Pit River Character***

This landscape unit includes the portion of the study area east of SR 89. The visual character of this landscape unit is characterized by the contrast between the Hat Creek Valley and the peaks

and buttes located to the east and west, see **Figure 3.2-4, Character Views 3 and 4**. Within the Valley, Hat Creek flows to the north through the flatlands and into the Pit River. Approximately 11 miles from the Project Site, views to the west are blocked by Burney Mountain and other ridgelines. Higher elevations within the valley provide broader views to the west, represented by KOP 6, an informal lookout along Haney Mountain approximately 19 miles from the Project Site. The varied topography of the region is visible within views from KOP 6. The Hatchet Ridge turbines are discernable along the ridgeline in the distance. An electrical transmission corridor extends into the background. Sources of nighttime lighting in the landscape unit include traffic along SR 299 and SR 89 and rural development.

Within this landscape unit, travelers, residents, commuters, recreationists and workers are common typical viewers. Popular recreational locations near this landscape unit include Hat Creek and Pit River, the Volcanic Legacy Scenic Byway, the Pacific Crest National Scenic Trail between McArthur-Burney Falls Memorial State Park and Lassen Volcanic National Park. Views within this landscape unit would primarily be brief as viewers travel along SR 299. Longer, more sustained views would be available from pullouts along SR 299 and SR 89.

### **3.2.2.3 Regulatory Setting**

#### ***Federal***

##### **Federal Aviation Administration Regulations on Objects Affecting Navigable Airspace**

The Federal Aviation Administration (FAA) is the federal agency that identifies potential impacts related to air traffic and related safety hazards. The FAA's Federal Aviation Regulations (FAR) at 14 CFR Part 77 establish standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for evaluating the effect of the proposed construction or alteration on operating procedures; determining the potential hazardous effect of the proposed construction on air navigation; identifying mitigating measures to enhance safe air navigation; and charting of new objects. FAA standards and Advisory Circular 70/7460-1L (FAA, 2018) govern the marking and lighting of obstructions that have been deemed to be a hazard to air navigation. In general, any temporary or permanent structure, including appurtenances, that exceeds an overall height of 200 feet (61 m) above ground level (AGL) meets the requirements to be marked and/or lighted. This would include the proposed meteorological evaluation towers (METs) and wind turbines. The lighting and marking standards in Advisory Circular 70/7460-1L were developed specifically to reduce potential impacts on migratory bird populations (FAA, 2018).

#### ***State***

##### **California State Scenic Highway Program**

In 1963, the California Legislature created the Scenic Highway Program to protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to the highways. A highway may be designated as "scenic" depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers' enjoyment of the view. The Scenic Highway System includes highways that are either eligible for designation or have been designated as such. There



Character View 3: View from Cassel Road facing southwest, east of SR 89 and Hat Creek, one of few locations with unobstructed views to the west. Burney Mountain is visible in the left side of the view. The Project would be approximately 12 miles away from this location. The row of trees beyond the Hat Creek sign are typical of view obstructing vegetation along SR 89.



Character View 4: View from Big Valley Point Summit facing southwest, east of Fall River Mills. Burney Mountain is approximately 27 miles away and is visible in the left of the view. Saddle Mountain and Haney Mountain are approximately 13 miles away and are visible in the right of the view, appearing above the Fall River Valley.

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SOURCE: Stantec

Fountain Wind

**Figure 3.2-4**  
Character Views 3 and 4



is only one designated state scenic highway in Shasta County: a 3.3-mile segment of SR 151 extending south from Shasta Dam which is located 28 miles from the western edge of the Project Site. Eligible State Scenic Highways include SR 89 from the Siskiyou County border to its intersection with SR 44 (at its closest approximately 11 miles from the Project Site), SR 299 west of I-5, and east of SR 89 (runs through the Project Site), and SR 44 from I-5 to its intersection with SR 89 (Caltrans, 2019).

## **Local**

### **Shasta County General Plan**

The Scenic Highways element of the Shasta County General Plan is intended to establish and protect state or county roads with scenic value. The element defines the term “scenic highway” as any freeway, highway, road, street, or boulevard which traverses an area of unusual scenic quality. The element also defines the area that is easily visible from a scenic highway or road as a “scenic corridor.” The scenic highways element also defines unique features which define the visual quality of scenic corridors:

- **Focal points** – prominent natural or man-made features which immediately catch the eye.
- **Transition areas** – locations where the visual environment changes dramatically.
- **Gateways** – locations which mark the entrance to a community or geographic area

Figure SH-1 in the Scenic Highways element identifies such scenic highways and features. It shows Hatchet Ridge Summit on SR 299 as designated a “gateway.” Additionally, SR 299 from Bella Vista east to the Hatchet Ridge Summit gateway and SR 44 from Old Station to Millville each is considered a “corridor in which the natural environment is dominant.” SR 299 from the Hatchet Ridge Summit gateway to Burney is considered a “corridor in which natural and manmade environment contrast.” I-5 from the City of Shasta Lake north to the County border is considered a “corridor in which the natural environment is dominant” (Shasta County, 2004).

Shasta County has developed the following objectives and policies to protect the visual quality of scenic highways and corridors within the County.

**Objective SH-1:** Protection of the natural scenery along the official scenic highways of Shasta County from new development which would diminish the aesthetic value of the scenic corridor.

**Objective SH-2:** New development along scenic corridors of the official scenic highway should be designed to relate to the dominant character of the corridor (natural or natural and man-made contrast) or of a particular segment of the corridor. Relationships shall be achieved in part through regulations concerning building form, site location, and density of new development.

**Objective SH-3:** Recognition that the management practices of agriculture, timber, and other resource-based industries which may cause some degradation of the visual quality of the scenic corridor are inevitable but their impacts are temporary.

**Policy SH-a:** To protect the value of the natural and scenic character of the official scenic highway corridors and the County gateways dominated by the natural environment, the

following provisions, along with the County development standards, shall govern new development:

- setback requirements
- regulations of building form, material, and color
- landscaping with native vegetation, where possible
- minimizing grading and cut and fill activities
- requiring use of adequate erosion and sediment control programs
- siting of new structures to minimize visual impacts from highway
- regulation of the type, size, and location of advertising signs
- utility lines shall be underground wherever possible; where undergrounding is not practical, lines should be sited in a manner which minimizes their visual intrusion.

**Policy SH-b:** The type, size, design, and placement of signs within an official corridor shall be compatible with the visual character of the immediate surroundings. The County's sign regulations should be redrafted for the following locations:

- timberlands and forest areas
- croplands and grazing lands
- rural community centers
- urban and town centers
- recreational uses

**Policy SH-c:** Official scenic highways should include vista sites, turnouts, restrooms, picnic grounds, travel information, and other related facilities/services.

### Shasta County Zoning Ordinance

Section 17.84.050 of the Shasta County Zoning Ordinance outlines requirements for outdoor lighting as follows: "All lighting, exterior and interior, shall be designed and located so as to confine direct lighting to the premises. A light source shall not shine upon or illuminate directly on any surface other than the area required to be lighted. No lighting shall be of the type or in a location such that constitutes a hazard to vehicular traffic, either on private property or on abutting streets."

### 3.2.3 Significance Criteria

A project would have a significant impact to Aesthetics if it would:

- a) Have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of public views of the site and its surroundings from publicly accessible vantage point.
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- c) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.



CEQA Guidelines Appendix G Section I suggests, “In non-urbanized areas,” a project would have a significant effect on the environment if it would “substantially degrade the existing visual character or quality of public views of the site and its surroundings.” Public views are defined for purposes of this inquiry as “those that are experienced from publicly accessible vantage point.” A different consideration is suggested if a project would be located in an urbanized area. The Project is not proposed to be located in an area that meets the CEQA definition of “urbanized” (Pub. Res. Code §21071); therefore, the analysis below focuses on the potential for the Project or an alternative to substantially degrade the existing visual character or quality of public views. Because the analysis of visual character and quality informs adverse effects on scenic vistas and vice versa, the analysis for CEQA Guidelines Appendix G Section I checklist criteria a) and c) are considered together in this analysis.

The degree of visual impact depends on how noticeable the adverse change is in conjunction with the visual sensitivity of the site. An adverse visual impact may occur when: (1) an action perceptibly changes the existing physical features of the landscape that are characteristic of the region or locale; (2) an action introduces new features to the physical landscape that are perceptibly uncharacteristic of the region or locale, or become visually dominant in the viewshed; or (3) an action blocks or totally obscures valued aesthetic features of the landscape. The noticeability of a visual impact is a function of the Project features, context, and viewing conditions (angle of view, distance, and primary viewing directions). The key factors in determining the degree of visual change are visual contrast, project dominance, and view blockage.

**Visual Contrast.** Visual contrast is a measure of the degree of change in line, form, color, and texture that a project would create, when compared to the existing landscape. Visual contrast ranges from “none” to “strong,” and may be defined as:

- None –The element contrast is not visible or perceived;
- Weak –The element contrast can be seen but does not attract attention;
- Moderate –The element contrast begins to attract attention and begins to dominate the characteristic landscape; or
- Strong – The element contrast demands the viewer’s attention and cannot be overlooked.

**Project Dominance.** Visual dominance is a measure of a project feature’s apparent size relative to other visible landscape features in the viewshed.

**View Blockage or Impairment.** View blockage or impairment is a measure of the degree to which a project’s features would obstruct or block views of aesthetic features due to the project’s position and/or scale.

**Overall Adverse Visual Impact.** Overall adverse visual impact is determined by the change in visual quality that would be introduced by a project. While generally a greater change in the visual quality of landscape would result in a greater visual impact, the degree of visual impact is also affected by the viewer type and sensitivity. Viewer types that are more sensitive to visual change may experience a greater visual impact from a given change in visual quality.

## 3.2.4 Direct and Indirect Effects

### 3.2.4.1 Methodology

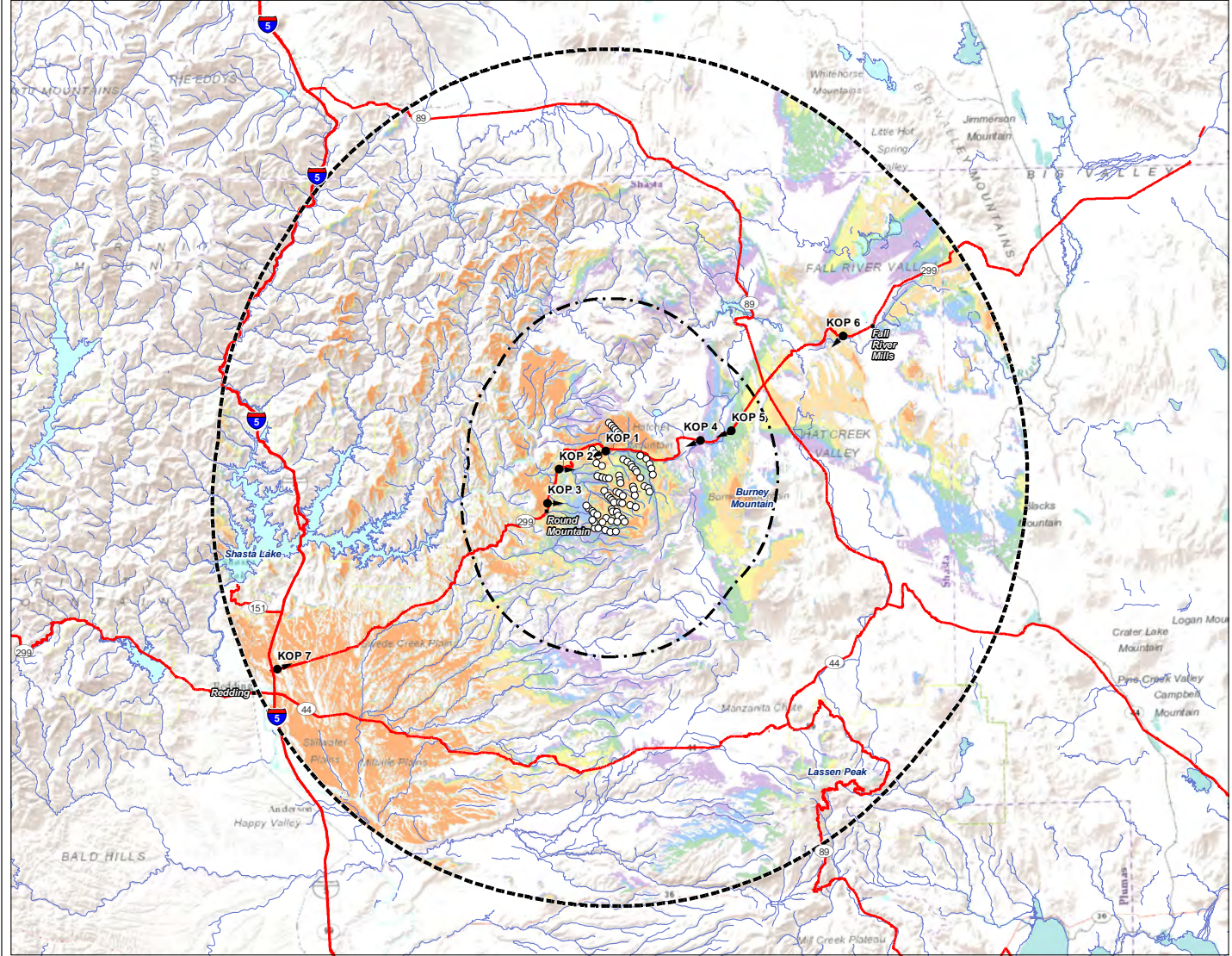
#### ***Visual Resources Technical Report***

This section summarizes the methodology used in the Visual Resources Technical Report (Appendix A) to analyze the Project's impacts to visual quality. The viewshed analysis used to select representative views and KOPs is described in Section 3.2.2.3, *Environmental Setting*. Appendix A provides additional discussion of the methodology used.

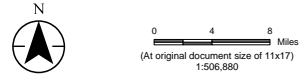
The Visual Resources Technical Report conducted a viewshed analysis using geographic information system (GIS) mapping to identify the visibility of the Project based on the height of proposed components and the surrounding topography. A viewshed analysis was conducted for the study area (i.e., within a 30-mile radius of the Project Site) as well as a 10-mile radius in order to define where the turbines would be visible at a scale not allowed by the 30-mile zone. This analysis was performed to determine from what locations the tip blades of turbines would be visible (see **Figure 3.2-5, 30-Mile Radius Viewshed Turbine Blade Tip**) and from what locations the turbine hubs would be visible (see **Figure 3.2-6, 30-Mile Radius Viewshed Hub Height**).

Visual simulations were created for each of the seven KOPs by placing a photo-realistic model of the Project into existing photographs. These simulations serve as the basis for evaluating the contrast between existing conditions and the conditions introduced by the Project. The Project is proposed entirely within forested lands that are actively managed for timber production. Additional parts of the Project (such as ancillary structures and overhead electrical collector lines and corridors) would be located within privately owned parcels and set back from publicly accessible locations. These components generally would be obscured by the surrounding forest and the topography in views toward the Project Site from outside viewing locations and, as analyzed below, would not substantially alter existing views. For these reasons, the analysis in the Technical Report focused on the visual effects of the proposed turbines. The analysis of Project operations in this section also focuses on the visual impacts of proposed turbines. The only Project component that would be visible from the viewing locations selected is the turbines; therefore, the simulations include only the proposed turbines. Long distance views also were included in the simulations to reflect the visibility of the Project from I-5 and Redding. More information about how these long-distance simulations were created can be found in Appendix A.

These simulations as well as on-site observations provided the basis for the evaluation of changes in visual quality for each KOP. The assessment of potential effects to visual resources relies on the methodology established by the Federal Highway Administration (FHWA) Visual Impact Assessment (VIA) for Highway Projects. The assessment relied on the FHWA worksheets which evaluates the natural harmony, cultural order, overall coherence, and landscape composition and vividness for each view. This assessment assigns a visual quality rating from "very low" to "very high" for each view for existing conditions and for simulated images showing existing conditions with the Project in place. The change in the visual quality rating for each view between existing and proposed conditions indicates the degree of contrast and visual change that would be introduced by the Project.



- Legend**
- Turbine
  - Key Observation Point (KOP)
  - 10 Mile Radius from Project Footprint
  - 30 Mile Radius from Project Footprint
  - 30-Mile Radius Viewshed – Turbine Blade Tip
- Number of Potential Turbines Visible**
- 1 - 5
  - 6 - 10
  - 11 - 20
  - 21 - 30
  - 31 - 50
  - 51 - 72



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 10N
  2. Data Sources: USGS
  3. Background: ESRI Terrain Base Map

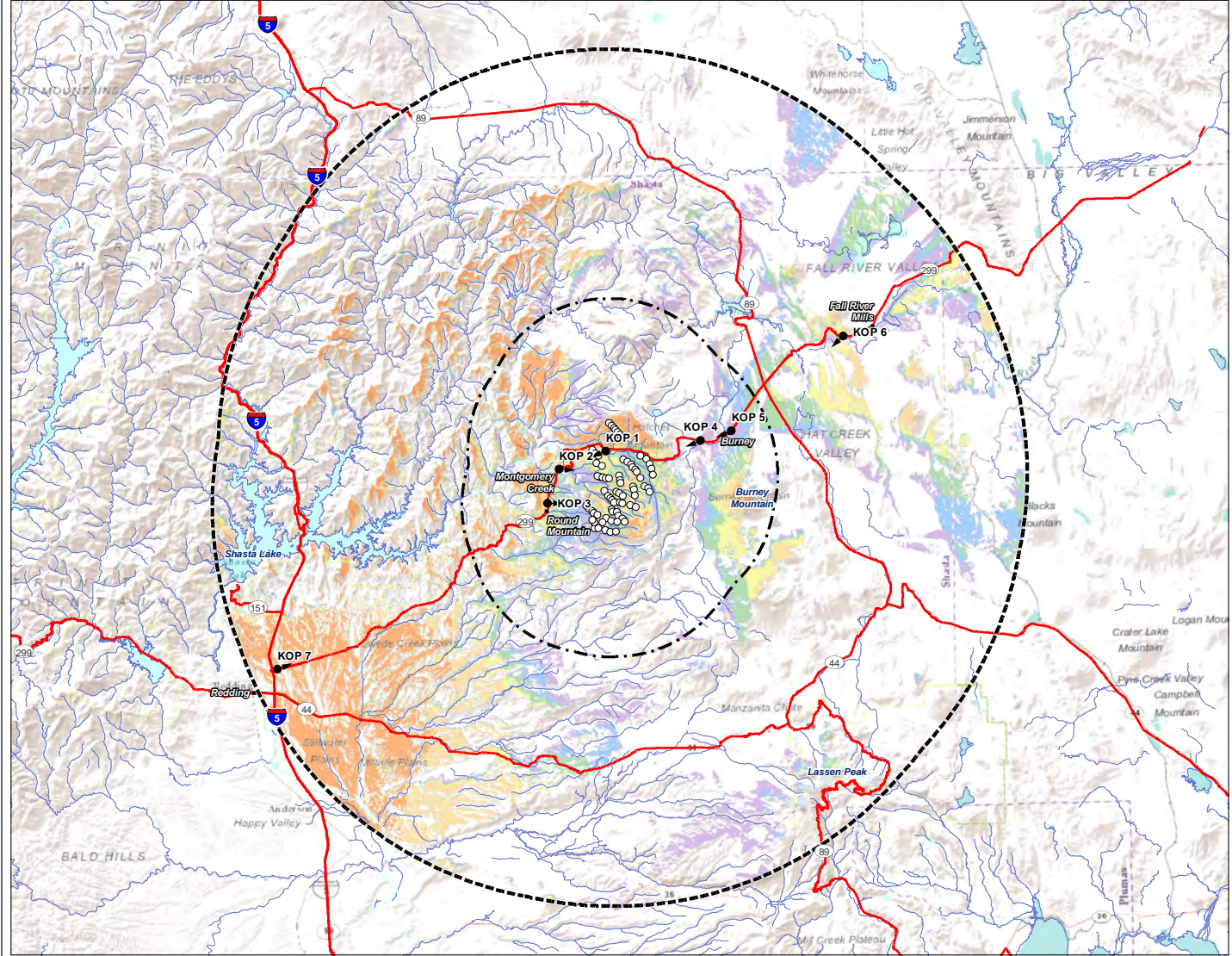


SOURCE: Stantec

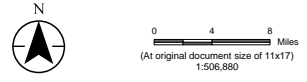
Fountain Wind

**Figure 3.2-5**  
30-Mile Radius Viewshed Turbine Blade Tip





- Legend**
- Turbine
  - Key Observation Point (KOP)
  - ⊞ 10 Mile Radius from Project Footprint
  - ⊞ 30 Mile Radius from Project Footprint
  - 30-Mile Radius Viewshed – Hub Height
  - Number of Potential Turbines Visible
  - 1 - 5
  - 6 - 10
  - 11 - 20
  - 21 - 30
  - 31 - 50
  - 51 - 72



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 10N
  2. Data Sources: USGS
  3. Background: ESRI Terrain Base Map



SOURCE: Stantec

Fountain Wind

**Figure 3.2-6**  
30-Mile Radius Viewshed Hub Height



## Visual Impact Analysis

This visual impact assessment identifies and assesses any potential short- or long-term adverse visual impacts on Aesthetics and visual resources that could result from implementation of the Project. The visual impact assessment included the following steps:

- Identifying Project components that could affect representative views in the study area in terms of visual quality, character, and levels of light and glare, as informed by plans, descriptions, and simulations provided by the Applicant;
- Visiting the Project Site. EIR Preparers visited the Project Site and surrounding area in June 2018, January 2019, and February 2019. Experience from these visits informed the understanding of baseline visual conditions as well as the County's independent review of the technical report provided by the Applicant.
- Assessing the Project's impacts to identified views by evaluating potential Project-caused change in the affected area's baseline visual quality, character, scenic vistas, designated scenic highways, and sources of light and glare using the visual simulations and analysis provided in the technical report. In addition to analyzing the impacts to individual viewpoints, this analysis evaluates the visual impacts of the Project as a whole.

### 3.2.4.2 Direct and Indirect Effects of the Project

- a) **Whether the Project would have a substantial adverse effect on a scenic vista or substantially degrade the character or visual quality of views from publicly accessible vantage points.**

**Impact 3.2-1: The Project would, unless mitigated, have a substantial adverse effect on a scenic vista or substantially degrade the character or visual quality of views from publicly accessible vantage points. (*Significant and Unavoidable*)**

The Project would be located in unincorporated Shasta County. The General Plan does not identify specific scenic vistas. Therefore, the Project would have no impact on scenic vistas designated in planning documents. However, while there are no designated scenic vistas within Shasta County, there are numerous formal and informal areas from which public views of the surrounding areas are accessible. Therefore, consideration of this potential impact focuses on the potential impact that the Project would have on these public vistas and visual character and quality. Nighttime lighting is discussed in this section as it relates to impacts on scenic vistas and general degradation of visual character and quality. However, a more detailed discussion of the impacts of glare and nighttime lighting is discussed under significance criterion c).

Project construction would require grading, vegetation and timber clearing, the operation of equipment, and the delivery and staging of equipment and turbine components. Decommissioning would require the operation of heavy equipment, the dismantling of turbine structures, and restoration of the Project Site. Equipment and vehicles traveling to the Project Site would be visible from SR 299 and locations such as KOP 1, similar to existing traffic from timber hauling trucks and traffic along SR 299 is visible from these locations. The deliveries and vehicles associated with Project construction and decommissioning may result in a short-term increase in the frequency of large delivery trucks along SR 299; however, this increase would not create a long-term substantial change in existing visual conditions as Project construction is expected occur over 18–24 months

and the Project would result in a 25 percent increase in traffic volume on SR 299 during peak am and pm hours, see Section 3.14, *Transportation*, for more information.

Unlike the turbines, which would extend above the tree line and be visible from surrounding vantage points, the majority of construction and decommissioning activities would not be visible from publicly accessible locations. The majority of construction and decommissioning activities would occur within the privately owned leasehold area, as discussed in Section 3.2.4.1, *Methodology*. Construction and decommissioning activities, each lasting approximately 24 months, that would be set back approximately 800 feet from SR 299 and screened by forested areas adjacent to SR 299. While activities during these periods would result in temporary adverse visual impacts due to the short-term increase in traffic and large delivery trucks along SR 299, as well as the potential for increased presence of dust in and around the Project Site (see Section 3.3, *Air Quality*). The impacts would be of short duration and would not represent a substantial change from existing conditions. Therefore, aesthetic impacts from construction and decommissioning would be less than significant.

To analyze potential impacts during the operation and maintenance period, the technical report uses the FHWA methodology to evaluate potential Project-caused changes relative to specified publicly accessible locations throughout the landscape units. The seven selected KOPs represent areas of potential Project visibility and visual sensitivity and were chosen as viewpoints which would be representative of the visual change that would be experienced from publicly accessible locations where the Project is visible. Visual simulations were created and analyzed to compare the view vividness, intactness, and unity to existing conditions without the Project to assess the change in visual quality that would be introduced by the Project.

Before and simulated after views from each KOP are provided in the figures that follow. All Project components would be located within privately owned parcels, set back a minimum of 800 feet from publicly accessible locations, and generally obscured by the forest and topography from views toward the Project from outside the Project Site. Therefore, this analysis focuses on the proposed turbines, which would extend above the forested areas and be visible from publicly accessible locations. Vegetation clearance would be required for the overhead electrical lines and access road improvements. Vegetation clearance could result in the creation of linear, man-made features within forested hills that could be visible from some locations. This vegetation clearance would create a level of visual contrast compared to existing conditions. However, due to the presence of existing cleared transmission line rights of way associated with Hatchet Ridge and other electrical lines as well as areas cleared for timber harvests, the introduction of linear vegetation clearance associated with the Project would not create a substantial amount of visual contrast when compared to existing conditions.

The following discussion summarizes the overall visual change that would be introduced by the Project. The KOP-level analysis describes the visual change at each representative viewpoint, but does not make CEQA conclusions. A discussion of the overall CEQA impact to scenic vistas follows the KOP level discussion. A detailed discussion of potential effects on vistas, visual character and visual quality for each KOP also is discussed. From KOP 1, 2 and 3, turbines are not visible in existing (baseline) views. Therefore, the introduction of Project turbines could

create a substantial source of visual contrast due to the strong, vertical/angular forms, light smooth texture of the turbines, and the motion of turbines. The features would create contrast with existing skylines which currently appear undeveloped aside from built features such as transmission towers in some views. The impact of the turbine towers to visual quality would depend on the proximity of the viewer. For example, from KOP 1, just two turbines would be visible, but the proximity of the viewer to the turbines would result in the turbines being a dominant feature from KOP 1. In certain views, such as from KOP 4 and KOP 5, the Hatchet Ridge Wind Project turbines would be visible; therefore, the proposed turbines would reinforce an existing element of the landscape character as they would similar in form, color, and texture to the existing turbines.

#### KOP 1: Fountain Fire Overlook

KOP 1 is representative of views experienced by tourists traveling through the area on SR 299 and is intended to represent views of nearby residents traveling along Moose Camp Road. This vista point has signage and parking. Typical viewers at this location (tourists and residents) are assumed to have a moderately high to high sensitivity to visual change. While travelers or tourists passing by this location on SR 299 would experience this view briefly, more sustained views would be experienced by tourists, recreationists, or residents who stop at the Fountain Fire Overlook.

As described in Section 3.2.2.3, *Environmental Setting*, the visual character of KOP 1 is defined by distinct, flat, uninterrupted ridgeline and homogenous forested vegetation. The existing visual quality at the Fountain Fire Overlook is moderately high. The uniformity of the forest landscape creates a high degree of natural harmony, coherence, and landscape composition and vividness (see **Figure 3.2-7, KOP 1, Fountain Fire Overlook**). As shown, two Project turbines would be visible from KOP 1, creating straight, vertical white structures (turbine towers, hubs, and blades would be visible) along an otherwise uninterrupted ridgeline. The proximity of the viewer to the turbines would make the turbines dominant within views from KOP 1. The turbines would have an adverse impact on the visual character of the site by interrupting the straight line and dominant form of the ridgeline with vertical forms and introducing smooth white colors which contrast with the evergreen colors dominant in existing views.

The purpose of the Fountain Fire Overlook is to create an accessible area for viewers to learn about and contemplate the Fountain Fire and associated reforestation efforts. The dominance of the turbines would become the view's most memorable component, detracting from the intended purpose of the vista point. Therefore, the Project would have an adverse effect on the Fountain Fire Scenic Vista. In this view, the turbines would dominate views and attract the focus of viewers, detracting from the natural harmony of the existing views. The turbines do not relate to any other existing structures within the view and; therefore, would reduce the overall coherence of the view and the landscape composition and vividness.

Additionally, although vegetation would partially screen nighttime views, nighttime lighting on turbines would be highly visible from this KOP. Although views from this KOP would primarily be experienced during daytime hours, views of turbine lighting would be unavoidable and would be enhanced by the proximity of the turbines to the KOP. The Project's reduction in the view's harmony, coherence, cultural order, and vividness would reduce visual quality at KOP 1 from



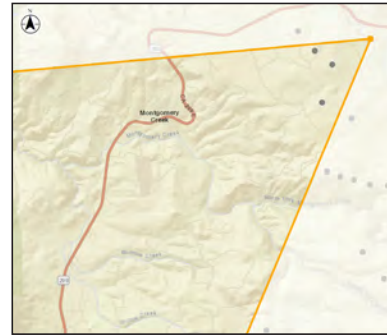
A: View to the west-southwest from the Fountain Fire Overlook, located along Moose Camp Road, just south of SR 299. A temporary meteorological tower is visible in the right side of the view.



B: View from KOP 1 with Project simulated. Proposed turbines would be visible just under one mile away, in the center of the view.



C: Existing view from KOP 1 (outlined) within broader context.



D: Approximate location of turbines within the 40-degree horizontal field of vision represented in the above view.

Specifications
<b>Location:</b> 40°51'47.50"N, 121°51'1.23"W
<b>View Direction:</b> West-Southwest
<b>Date &amp; Time:</b> 18 April 2019, 10:38 a.m.
<b>Camera Focal Length:</b> 50 mm
<b>Camera Make / Model:</b> 5DsR
<b>Photo Source:</b> Stantec
<b>Number of Proposed Turbines:</b> 2

SOURCE: Stantec

Fountain Wind



moderately high to moderately low. In summary, the Project would have an adverse impact to scenic vistas from KOP 1, the visual character, and visual quality of KOP 1. KOP 1 is representative of views from scenic vista points where the proposed turbines would be in close proximity and would impose on an otherwise uninterrupted skyline.

#### KOP 2: Montgomery Creek

KOP 2 is located near the entrance of the Montgomery Creek School and is intended to be representative of views in the Montgomery Creek area. Viewers from this KOP would include Montgomery Creek residents, who would have relatively static or sustained views from the community, and tourists who would have brief views while traveling eastward along SR 299. Both viewer types would have moderately high to high sensitivity to visual change. Commuters and workers (assumed to have a moderate sensitivity to visual change) also would briefly see this KOP while traveling along SR 299. Views from KOP 2 are not considered scenic vistas because there is no designated signage or place intended for the public to experience a scenic vista and the view as seen from KOP 2 is typical of built mountain communities. Therefore, the following analysis focuses primarily on the Project's potential to degrade the character or visual quality of views from KOP 2 as a publicly accessible vantage point.

Existing visual character visible from KOP 2 is defined by an undeveloped ridgeline in the background and a hill which extends from the middle to the right side of the view. Built features such as the paved entry way to the elementary school, structures and vehicles associated with the elementary school, and a transmission line and light pole introduce elements of development into the KOP. As shown in **Figure 3.2-8, KOP 2, Montgomery Creek**, views from KOP 2 show overlapping ridges, in the middleground and the background. Linear man-made features such as roads, light poles, and power lines are present in the middleground. Views from KOP 2 have a moderate level of natural harmony and cultural order and show a representative mix of ridgelines and development typical of the area. The overall coherence and landscape composition and vividness of views from KOP 2 is low due to the contrast of built features in the foothills. The overall visual quality of views from KOP 2 under existing conditions is moderate and representative of views along the highway with undeveloped hills and mountains in the background interrupted by transmission or distribution facilities.

As shown in Figure 3.2-8, six of the proposed turbines would be visible along the furthest ridgeline. Turbines would appear at varying heights behind the ridgeline and turbine towers, hubs, and blades would be visible above the ridgeline. The visible turbines would introduce straight, vertical forms, white, smooth colors, and motion into an otherwise undeveloped ridgeline introducing new colors and forms into existing views. While the turbines would alter the visual character in views from KOP 2, the change in visual character would be somewhat consistent with the pattern of existing development in views from KOP 2.

The Project would not alter the level of natural harmony in views from KOP 2. With regard to cultural order, the Project turbines would be visible, but there would be no discernible pattern to the turbines visible from KOP 2 resulting in a decrease in the cultural order of views. The addition of the turbines would be somewhat consistent with existing presence of transmission towers and would balance out the presence of the transmission towers. However, the turbines



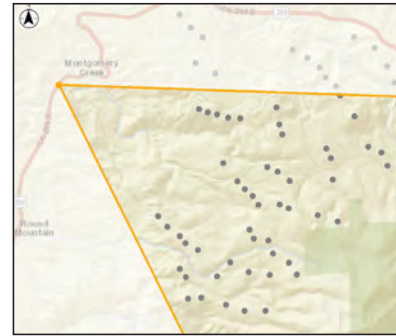
A: View to the east from the entrance to Montgomery Creek Elementary School off of SR 299.



B: View from KOP 2 with project simulated. Turbines would be most visible in the left side of the view, between 3 and 5 miles away.



C: Existing view from KOP 2 (outlined) within broader context.



D: Approximate location of turbines within the 40-degree horizontal field of vision represented in the above view.

Specifications
<b>Location:</b> 40°50'34.57"N, 121°55'20.54"W
<b>View Direction:</b> East
<b>Date &amp; Time:</b> 13 December 2018, 2:18 p.m.
<b>Camera Focal Length:</b> 50 mm
<b>Camera Make / Model:</b> 5DsR
<b>Photo Source:</b> Stantec
<b>Number of Proposed Turbines:</b> 10

SOURCE: Stantec

Fountain Wind

**Figure 3.2-8**  
KOP 2: Montgomery Creek

would create new unique, moving forms along the ridgeline and would draw the attention of viewers. The overall visual quality of views from KOP 2 would be reduced from moderate to moderately low. Safety lighting on the turbines would be visible along the ridgeline and would introduce nighttime lighting where no nighttime lighting currently is visible. In summary, the views from KOP 2 are not considered to be scenic vistas; therefore, there would be no impact to scenic vistas at KOP 2. The turbines visible from KOP 2, however, would have an adverse impact on visual character and would reduce the visual quality from moderate to moderately low.

### KOP 3: Round Mountain

KOP 3 is located in and is representative of views from the community of Round Mountain. Typical viewers at this KOP would include residents of Round Mountain and tourists (assumed to have a moderately high sensitivity to visual change) and commuters and workers (assumed to have a moderate sensitivity to visual change). The Hill Country Clinic and Community Center is near this KOP. The duration of views for tourists or commuters at this KOP would be short, but not momentary or intermittent. The duration of views for Round Mountain residents would be sustained. Views from KOP 3 are not considered scenic as there is no designated signage or place intended for the public to experience a scenic vista and because the view is representative of the existing community. Therefore, the following analysis focuses primarily on the potential for the Project to degrade the character or visual quality of views from KOP 3 as a publicly accessible vantage point.

As shown in **Figure 3.2-9, KOP 3, Round Mountain**, views from KOP 3 are similar to views from KOP 2. Under existing conditions, visual character at KOP 3 is defined by an extended, rounded and articulate ridgeline in the background and rural development in a narrow valley the middleground. Under existing conditions, no structures interrupt the skyline. Built features such as power lines, transmission towers, power lines, fence lines, and roads introduce linear, man-made features which traverse the view, partially blocking the ridgeline in the background. The visual character; therefore, is defined by the form of the forested ridgeline in the background and the infrastructure and development in the foreground.

Similar to the views from KOP 2, existing visual quality of the view from KOP 3 is moderate. Under baseline conditions, the natural harmony of views is moderate due to the strong, defined ridgeline in the background which is interrupted by transmission towers. The collection of transmission towers and rural residences reduces the cultural order of views to a moderately low level. Similarly, the contrast between the ridgeline and the transmission towers and houses result in a moderately low level of coherence and a moderate level of landscape composition and vividness. As a result, the overall visual quality of views from KOP 3 is moderate.

The Project would introduce a number of turbines atop the ridgeline. The turbines would be visible at various heights resulting in varying visibility of turbine towers, nacelles, and blades. Project turbines would extend above the ridgeline, interrupting the currently undisturbed skyline. The Project would result in changes to the visual character of views at KOP 3. While the turbines would add an element of visual interest to views from KOP 3, they would also extend the components of linear development in existing conditions above the ridgelines. Grey and white colors and vertical forms would attract the focus of viewers and diminish the visual character of the existing ridgeline.



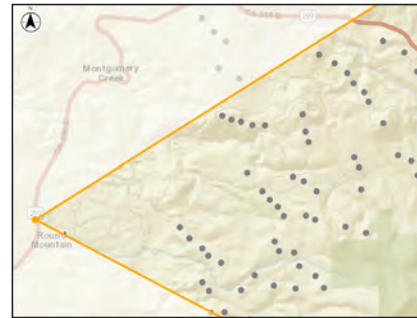
A: View to the east from the Round Mountain Post Office, just south of the Hill Country Community Clinic.



B: View from KOP 3 with project simulated. Project turbines would be visible between 3 and 6 miles away.



C: Existing view from KOP 3 (outlined) within broader context.



D: Approximate location of turbines within the 40-degree horizontal field of vision represented in the above view.

Specifications
<b>Location:</b> 40°48'11.94"N, 121°56'24.44"W
<b>View Direction:</b> East
<b>Date &amp; Time:</b> 13 December 2018; 3:18 p.m.
<b>Camera Focal Length:</b> 50 mm
<b>Camera Make / Model:</b> 5DsR
<b>Photo Source:</b> Stantec
<b>Number of Proposed Turbines:</b> 13

SOURCE: Stantec

Fountain Wind

**Figure 3.2-9**  
KOP 3: Round Mountain

While the Project would introduce white, vertical structures which would result in an interruption in the skyline, the Project would not reduce the level of natural harmony or cultural order, as it would create consistency with existing infrastructure in views. The addition of turbines to views from KOP 3 would result in electrical infrastructure being a dominant part of the view. This would reduce the overall coherence and landscape composition and vividness. The Project would reduce the overall visual quality from KOP 3 from moderate to moderately low. Due to the amount of mature vegetation and the location of the highway within the mountain valley, views of Project infrastructure would be intermittent, but would draw the attention of viewers. Additionally, due to the height of the turbines above the ridgeline, nighttime safety lighting would be visible and unobstructed in views from KOP 3. In summary, while the Project would not impact a scenic vista from KOP 3, the visual character of views from KOP 3 would be adversely affected. Additionally, the visual quality of views from KOP 3 would be reduced from moderate to moderately low.

#### KOP 4: SR 299 at Tamarack Road

KOP 4 is located along SR 299 east of the Project Site and is representative of views east of Hatchet Ridge and west of Burney. Viewers would include moderately high to highly sensitive tourists and commuters and workers who would be less sensitive to visual change. As shown in **Figure 3.2-10, KOP 4, SR 299 at Tamarack Road**, Views from KOP 4 would be relatively long due to the extended, straight stretch of SR 299 in the open valley. Views from KOP 4 are not considered a scenic vista because there is no designated signage or place intended for the public to experience a scenic vista. Therefore, the following analysis focuses primarily on the potential for the Project to degrade the character or visual quality of views from KOP 4 as a publicly accessible vantage point.

The existing visual character of views from KOP 4 is defined by a defined, forested ridgeline in the background and broad open meadow in the foreground and middleground. Partially screened rural development and mature trees are visible in the middleground. Linear features such as the road and fence lines are visible in the foreground. A linear, cleared transmission right-of-way (ROW) extends from the right side of the valley, up the hillside toward the middle of the ridgeline. Atop the ridgeline, the towers, nacelles, and blades of the existing Hatchet Ridge turbines are visible. The existing visual quality of views from KOP 4 is moderate. Under existing conditions, views from KOP 4 have a moderately high level of natural harmony due to the densely vegetated hillsides which lead to the valley floor. The various man-made features visible from KOP 4 do not have a coherent pattern. Therefore, views from KOP 4 have a low level of cultural order. The man-made components of views from KOP 4 detract from the overall coherence and landscape composition and vividness.

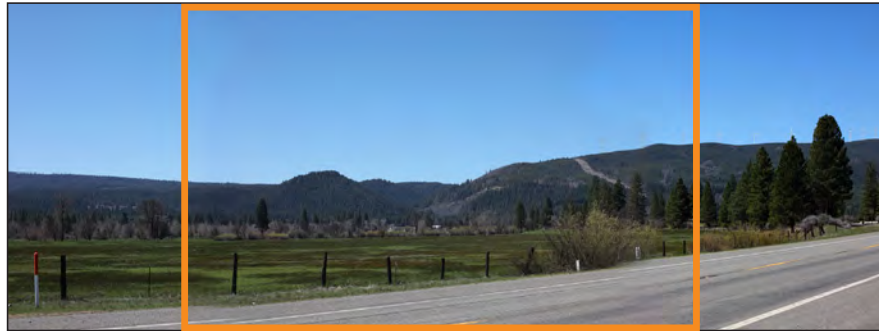
Two Project turbines would be partially visible in views, with just the turbine blades extending above the mountain ridgeline in the center of the view. These turbines would not be prominently visible to viewers at KOP 4 due to their low profile, although the motion of the blades above the ridgeline, could attract viewers' attention. Turbines of the Hatchet Ridge Wind Project would remain the most visible human-made feature in views from KOP 4. The visual character of views from KOP 4 would not change substantially. The additional turbine blades would be imperceptible to most viewers and would not substantially change the form, line, or color visible in existing views. The new turbines would not detract from the natural elements in daytime views and would not



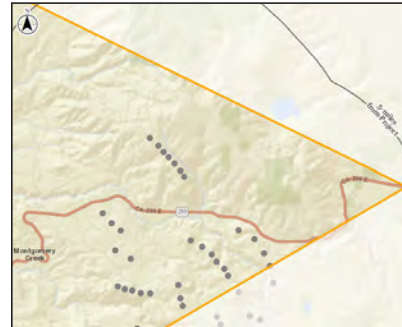
A: View to the west-southwest from SR 299 at Tamarack Road, near Sierra Pacific Industries. Existing Hatcher Ridge turbines are visible less than 3 miles away.



B: View from KOP 4 with Project simulated. Two Project turbines would be visible between 4 and 6 miles away in the center of the view.



C: Existing view from KOP 4 (outlined) within broader context.



D: Approximate location of turbines within the 40-degree horizontal field of vision represented in the above view.

Specifications
<b>Location:</b> 40°52'27.26"N, 121°42'19.29"W
<b>View Direction:</b> West-Southwest
<b>Date &amp; Time:</b> 18 April 2019, 12:07 p.m.
<b>Camera Focal Length:</b> 50 mm
<b>Camera Make / Model:</b> 5DsR
<b>Photo Source:</b> Stantec
<b>Number of Proposed Turbines:</b> 2

SOURCE: Stantec

Fountain Wind

**Figure 3.2-10**  
KOP 4: SR 299 at Tamarack Road

reduce the cultural order, coherence, or landscape composition and vividness of views. At night, turbine lighting would be partially visible from KOP 4; however, it would be consistent with the lighting for the existing turbines on Hatchet Ridge. Therefore, due to the low profile of turbines and the presence of the existing turbines on Hatchet Ridge, the Project would not substantially reduce the visual quality of views from KOP 4. In summary, at KOP 4, the Project would have no impact on scenic vistas and would not substantially reduce the visual character or quality of views.

#### KOP 5: Burney

KOP 5 is located in downtown Burney, the main population center east of the Project Site. Viewers from this KOP would include local residents who would have sustained views of the Project, tourists traveling to or through Burney who would have brief views of the Project. Commuters and workers also could have static or brief views of the Project depending on whether they are moving through the town or stopped in Burney for an extended period of time. Views from KOP 5 are not considered to be a scenic because they reflect views from the community generally and because they would be blocked in substantial respect by built features. While sustained views of the Project may be possible from downtown, there is no designated signage or place intended for the public to experience a scenic vista. Therefore, the following analysis focuses primarily on the potential for the Project to degrade the character or visual quality of views from KOP 5 as a publicly accessible vantage point.

Existing visual character of views from KOP 5 is defined by features typical of suburban development including roads, structures, light poles, traffic lights, parking lots, and mature trees. The form of an extended forested ridgeline is visible in the background, which is interrupted by the structures and trees in the downtown area. A linear transmission line ROW is prominent on the ridgeline and the Hatchet Ridge turbines are visible atop the right side of the ridgeline. Existing visual quality of views from KOP 5 is moderate. Due to the contrast between the man-made features of the downtown area and the surrounding valley and ridgeline, natural harmony is considered moderately low. Similarly, none of the observable components of the view are particularly memorable, resulting a moderately low level of landscape composition and vividness. The cultural order and overall coherence of views are considered moderate.

As demonstrated in **Figure 3.2-11, KOP 5, Burney**, the Project would introduce turbines to the left of the existing Hatchet Ridge turbines and to the left of the transmission line corridor. Many of the Project turbines would be obscured by vegetation and intervening topography resulting in just their blades being visible above the ridgeline. The motion of the blades would be visible above the ridgeline. The additional turbines would not have an appreciable effect on the visual character of views from KOP 5. The turbines would add forms and colors similar to the existing turbines and would not substantially alter the existing visual character. From KOP 5, Project turbines would be seen as an extension of the existing Hatchet Ridge turbines. They would not appear as unique features and would result in a retained coherence and composition in views. Despite the increased size of the Project turbines compared to the existing turbines, the distance at which the Project turbines would be seen would result in the turbines appearing with a consistent height. Viewers in Burney would have intermittent views of the Project from the downtown area. At night, the existing lighting on the Hatchet Ridge turbines would appear extended along the ridgeline. Due to the



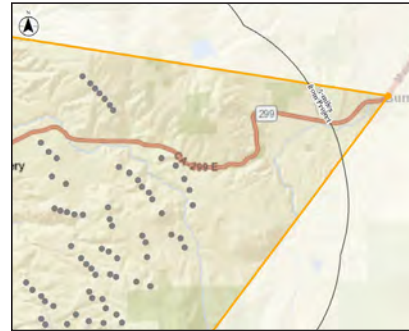
A: View to the west-southwest from downtown Burney. The existing Hatchet Ridge project is visible in the right portion of the view.



B: View from KOP 5 with Project simulated. Project turbines would be visible near the center of the view, to the left of existing Hatchet Ridge turbines, between 7 and 10 miles away.



C: Existing view from KOP 5 (outlined) within broader context.



D: Approximate location of turbines within the 40-degree horizontal field of vision represented in the above view.

Specifications	
<b>Location:</b>	40°53'4.21"N, 121°39'27.93"W
<b>View Direction:</b>	West-Southwest
<b>Date &amp; Time:</b>	18 April 2019, 11:08 a.m.
<b>Camera Focal Length:</b>	50 mm
<b>Camera Make / Model:</b>	5DsR
<b>Photo Source:</b>	Stantec
<b>Number of Proposed Turbines:</b>	8

SOURCE: Stantec

Fountain Wind

**Figure 3.2-11**  
KOP 5: Burney



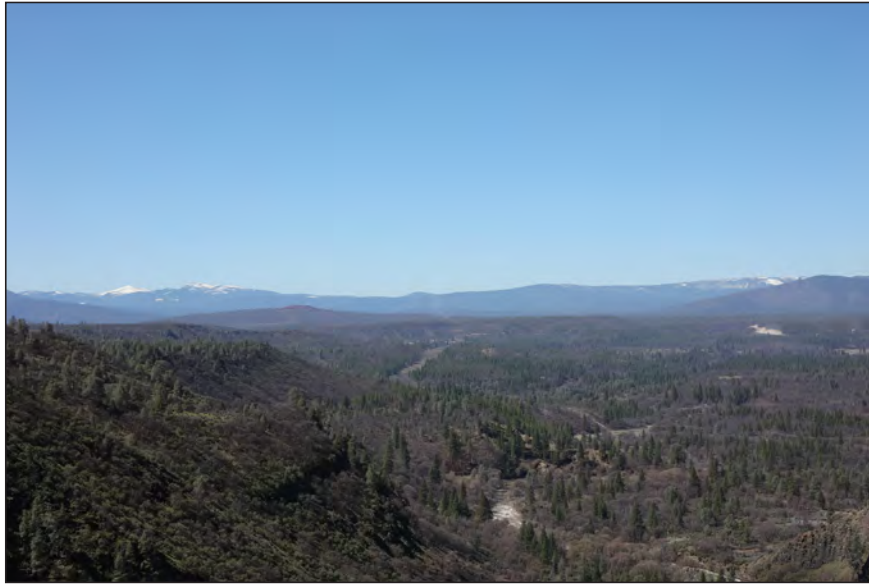
presence of the existing Hatchet Ridge Wind Project turbines and the combination of natural and manmade features visible from KOP 5, the Project would not reduce visual quality of views from KOP 5. In summary, the Project would not impact scenic vistas or reduce visual character or quality from KOP 5.

#### KOP 6: SR 299 at Pit River Overlook

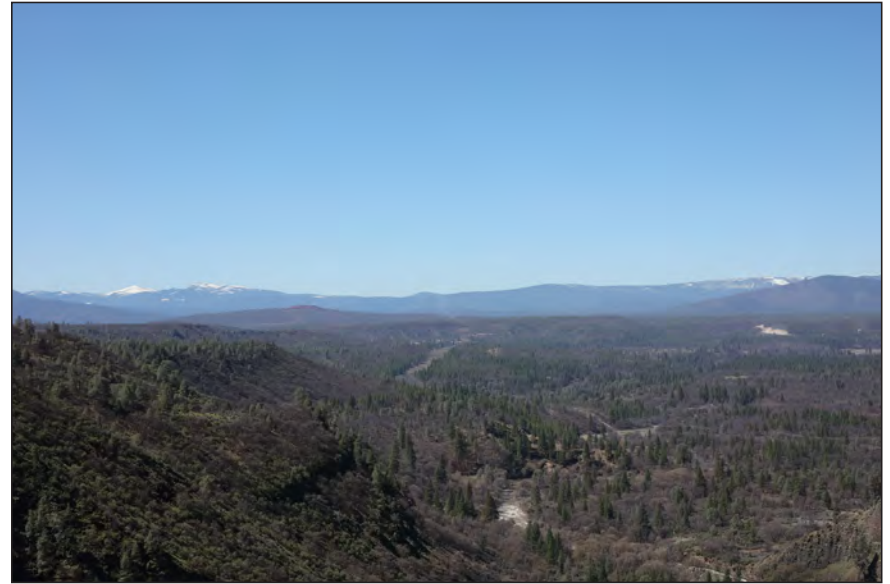
KOP 6 is located along SR 299 at the Pit River Overlook. This KOP also is representative of views along SR 299 east of SR 89, which is a regional arterial. The Pit River Overlook provides an informal opportunity for travelers along SR 299 to stop and contemplate views of the Pit River, varied topography in the valley, and peaks in the distance. Typical viewers at this location would include recreationists and tourists, although commuters also may travel the route. Most viewers are expected to experience this view while in motion and have relatively brief views of the KOP; however, viewers who stop at the informal pullout could experience sustained landscape views. This KOP location also is used as a reference point to conceptualize views of the Project Site from Lassen Peak or Burney Peak as they would both have expansive but distant views toward the Project Site looking northwest. Lassen Peak is located further from the Project Site than KOP 6, so the turbines would likely be less visible and have less of an impact than from KOP 6. Burney Peak is located closer to the Project Site than KOP 6 is. Therefore, in views of the Project Site from Burney Peak, turbines would likely be closer and more prominent along the ridgeline due to the distance from the Project Site.

The existing visual character of views from KOP 6 are defined by the varied forms of the topography and the various shades of greens and browns which form the layers of topography and ridgelines. The Pit River creates a linear feature that winds through the landscape. The presence of the transmission line ROW bisects views from KOP 6 and Hatchet Ridge Wind Project turbines are visible along the right side of the ridgeline when atmospheric haze or clouds do not limit visibility. As shown in **Figure 3.2-12a**, *KOP 6, SR 299-Pit River Overlook*, visual quality of views from KOP 6 is high. The views of the mountains and river valley provide a high degree of natural harmony, overall coherence, and landscape composition and vividness.

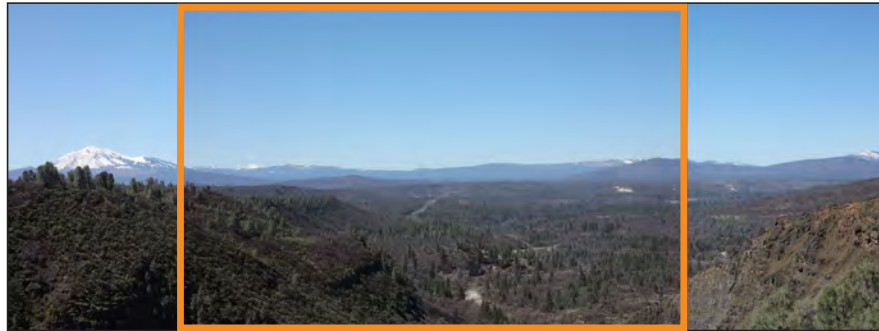
As shown in **Figure 3.2-12b**, *KOP 6a, KOP 6, SR 299-Pit River Overlook (Simulation)*, Project turbines visible to the left of the existing turbines would extend slightly the portion of the skyline that currently is occupied by wind turbines. The additional turbines would add colors and forms along the skyline which are similar to existing views. Additionally, the proposed turbines would not block or diminish the existing skyline or other prominent forms in the view. Therefore, the visual character of views from KOP 6 would not be substantially reduced by the Project. The additional Project turbines would reinforce the cultural order in existing views and would not substantially reduce the natural harmony, overall coherence, or landscape composition and vividness. At night, turbine lighting would be visible to viewers alongside the lighting of the Hatchet Ridge turbines. The Project would not reduce the visual quality of views from KOP 6. Additionally, in existing views, the visual focus for viewers at KOP 6 is the Pit River and the distant snowy skyline, and the existing turbines are visible but are not prominent within views.



A: View to the southwest from SR 299, at an overlook en route to Fall River Mills. Hatchet Ridge turbines are detectable along the ridgeline in the right side of the view.



B: View from KOP 6 with Project simulated. The Project would be visible just under 19 miles away.



C: Existing view from KOP 6 (outlined) within broader context.



D: Approximate location of turbines within the 40-degree horizontal field of vision represented in the above view.

Specifications
<b>Location:</b> 40°59'33.61"N, 121°29'2.01"W
<b>View Direction:</b> Southwest
<b>Date &amp; Time:</b> 18 April 2019, 11:42 a.m.
<b>Camera Focal Length:</b> 50 mm
<b>Camera Make / Model:</b> 5DsR
<b>Photo Source:</b> Stantec
<b>Number of Proposed Turbines:</b> 36

SOURCE: Stantec

Fountain Wind

**Figure 3.2-12a**  
KOP 6: SR 299-Pit River Overlook



E: Enlarged image showing view from KOP 6 with Project simulated.

SOURCE: Stantec

Fountain Wind

**Figure 3.2-12b**  
KOP 6: SR 299-Pit River Overlook (Simulation)

### KOP 7: Redding

KOP 7 is located on SR 299 near I-5 and is used as reference point to evaluate views from Redding and the general Sacramento Valley area. Viewers of this KOP would include residents and tourists with a moderately to high sensitivity to visual change and commuters and workers with more moderate sensitivities. The straight segment of highway would allow for sustained views for drivers along SR 299. Views from this KOP are also representative of views from eastern Redding where more static views would be available. No designated pullouts or signs are available for viewers at this KOP that would indicate a scenic vista; therefore, the following analysis focuses on the potential for the Project to degrade the character or visual quality of views from KOP 7 as a publicly accessible vantage point.

The existing visual character of views from KOP 7 is defined by the extensive Sacramento Valley and the defined uniform line and form of the mountain skyline east of Redding. The skyline is mostly uninterrupted and extensive panoramic views of the surrounding mountains are available. Built features such as roads, signage and the development associated with Redding are visible in the foreground and middleground. The existing visual quality of the view from KOP 7 is moderately high. As shown in **Figure 3.2-13a, KOP 7, Redding**, snowcapped peaks and forested ridgelines are visible in the background, built features such as the highway and nearby homes are visible in the foreground and middleground. The Hatchet Ridge Wind Project turbines are barely detectable on the left side of the view along the ridgeline when atmospheric conditions do not limit visibility.

As shown in **Figure 3.2-13b, KOP 7, Redding (Simulation)**, the Project's proposed turbines would be visible between the existing turbines and in the center of views. They would appear scattered with no orderly layout or pattern and would be larger when compared to the existing turbines. This would diminish the uniform line, color, and form of the ridgeline. The proposed turbines would encroach upon the skyline and could give the impression of development spilling down from the ridgeline resulting in an adverse impact to the visual character of views from the KOP. Due to the distance of the Project Site from KOP 7, the turbines would be barely visible in the distant background. However, the layout of the proposed turbines around the existing turbines would create an impression that an extended portion of the mountains is dedicated toward the development of wind energy. Nighttime lighting would be visible from this KOP and would increase the extent of turbine safety lighting on the hillside. Due to the scattered appearance of the turbines, the Project would reduce the level of cultural order, overall coherence, and landscape composition and vividness of views. The Project would reduce overall visual quality from moderately high to moderate.

### Impact Summary

As described in the KOP-specific analysis above, the Project's potential impact to visual resources would vary depending on existing visual elements in views from KOPs, the visibility of the Project, duration of views, and the visual sensitivity of viewers. Generally, the Project would result in long-term visual impacts due to the introduction of vertical elements and motion (when the rotor blades are in motion). In locations where no existing turbines are visible and where there are no other existing manmade features (such as power lines), the Project turbines would be a source of significant visual contrast. The amount of visual contrast created by the turbines would depend on the view from each KOP.



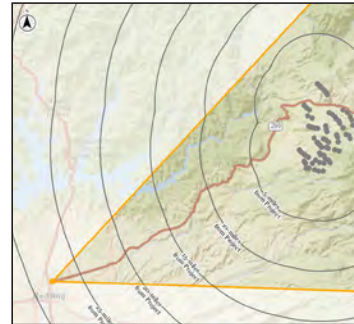
A: View to the east from eastbound SR 299, east of Redding near Shasta College and a local bike path. Existing Hatchet Ridge turbines are barely detectable along the ridgeline in the left side of the view.



B: View from KOP 7 with Project simulated. Project turbines would be visible just under 28 miles away.



C: Existing view from KOP 7 (outlined) within broader context.



D: Approximate location of turbines within the 40-degree horizontal field of vision represented in the above view.

Specifications
<b>Location:</b> 40°36'48.54"N, 122°21'20.27"W
<b>View Direction:</b> East-Northeast
<b>Date &amp; Time:</b> 18 April 2019, 1:26 p.m.
<b>Camera Focal Length:</b> 50 mm
<b>Camera Make / Model:</b> 5DsR
<b>Photo Source:</b> Stantec
<b>Number of Proposed Turbines:</b> 72

SOURCE: Stantec

Fountain Wind

**Figure 3.2-13a**  
KOP 7: Redding



E: Enlarged image showing view from KOP 7 with Project simulated.

SOURCE: Stantec

Fountain Wind

**Figure 3.2-13b**  
KOP 7: Redding (Simulation)

### *Mountain Communities*

Within the Mountain Communities Landscape Unit, the Hatchet Ridge Wind Project turbines are intermittently visible from various locations due to intervening topography and dense forests along SR 299. From certain KOPs such as KOP 2 and 3, that project's turbines are not visible and the existing ridgelines are uninterrupted. For this Project, turbine towers, hubs, and blades would be visible. Due to existing man-made infrastructure, the lack of designated scenic vistas, moderate existing visual quality, and the brief duration of most views, the Project turbines would not result in a substantial impact to scenic vistas, visual character, or visual quality.

From locations such as KOP 4 and KOP 5, the Hatchet Ridge Wind Project turbines are prominent in existing views: the towers, hubs, and blades of multiple turbines are visible in existing views and are prominent along the ridgelines. With the Project, views from KOP 4 of the Project's turbines would be mostly obscured - just the blade tips of most turbines would be visible. From KOP 5, the proposed turbine towers, hubs, and blades would be visible. From both of these locations, the turbines would extend slightly the line of existing turbines and would not impact scenic vistas, visual character, or visual quality.

In contrast to the other locations, the Hatchet Ridge Wind Project turbines are not visible from some locations to the west such as KOP 1, and there is no other element of development or man-made structures that reduces visual character or quality. The existing visual quality of views from this KOP is moderately high and views would be sustained from the designated overlook. With the Project, two turbines would dominate views and turbine towers, hubs, and blades would be visible. At this KOP, the presence of the turbines would dominate views at the scenic vista and create a substantial amount of visual contrast resulting in an adverse impact to the scenic vista and would substantially degrade visual character and quality.

### *Hat Creek and Pit River*

Within the Hat Creek and Pit River Landscape Unit, the existing Hatchet Ridge Wind Project turbines would be visible in the distance in views to the west from some elevated locations. From KOP 6, the existing turbines are visible from a scenic vista along SR 299, but while multiple entire turbine towers are visible, the turbines are not prominent along the ridgeline and do not dominate existing views from the scenic vista. The Project would introduce additional turbines along the ridgeline; however, the new turbines would blend in with the existing turbines, extending the existing line of turbines slightly and in an organized pattern. The Project's proposed turbines would not be prominent along the ridgeline, and would not contrast with existing conditions. Therefore, from this location, the Project would not result in a substantial impact to a scenic vista, visual character, or visual quality. KOP 6 also is used as a reference point to consider other publicly accessible views of the Project Site from mid-distance to distant locations such as Burney Mountain or Lassen Peak. This view is representative of the visual change that would occur south and east of the Project Site at other publicly accessible locations. From locations such as Lassen Peak, the turbines would appear more distant and less visible than depicted in Figure 3.2-12b. However, some locations, such as Burney Peak, are located closer to the turbines than KOP 6. Therefore, the turbines would likely appear larger and feature more prominently in views than depicted in Figure 3.2-12b.

### Sacramento Valley

Within the Sacramento Valley landscape unit, the existing Hatchet Ridge Wind Project turbines are faintly visible atop the distant ridgeline. Visual quality is moderately high due to the extended form and line of the mountain skyline east of Redding and the high degree of natural harmony, cultural order, overall coherence, and landscape vividness and composition. The Project would result in a longer extension of the line of turbines along the ridgeline left to right. Additionally, the Project's proposed turbines would appear larger than the turbines on Hatchet Ridge and would descend down the mountains, creating an appearance of development and wind energy encroaching upon the mountains east of Redding and occupying a large portion of the mountain skyline. This would reduce the quality of scenic vistas represented by KOP 7 and would reduce the visual character and quality of views from KOP 7 and the views for which it is representative, including views from the Valley and views from southeastern slopes north of the Project. Due to the distance between viewers at this KOP and the turbines, the proposed turbines would be barely visible along the ridgeline. Therefore, while the proposed turbines would extend the visibility of wind development along the hillside and would reduce visual quality, the turbines would not dominate views from the KOP and would not result in a moderate reduction of existing visual character or quality. As shown in Figure 3.2-6, the entire extent of the Project would be visible from many locations in the Valley, on SR 299 traveling east, and from southeastern facing slopes located northwest of the Project.

The change in visual quality that would result from the Project is summarized in **Table 3.2-2, Summary of Visual Quality Findings**, below.

**TABLE 3.2-2  
SUMMARY OF VISUAL QUALITY FINDINGS**

KOP Location	Overall Visual Quality
<b>Mountain Communities</b>	
KOP 1 - Fountain Fire Overlook	Moderately High
With Project	Moderately Low
KOP 2 - Montgomery Creek	Moderate
With Project	Moderately Low
KOP 3 - Round Mountain	Moderate
With Project	Moderately Low
KOP 4 - SR 299 at Tamarack Road	Moderate
With Project	Moderate
KOP 5 - Burney	Moderate
With Project	Moderate
<b>Hat Creek and Pit River</b>	
KOP 6 - SR 299 Pit River Overlook	High
With Project	High
<b>Sacramento Valley</b>	
KOP 7 - Redding	Moderately High
With Project	Moderate

SOURCE: Appendix A, *Aesthetics*



As shown in Table 3.2-2 the Project would not reduce visual quality at a number of representative KOPs. However, the Project would result in a substantial reduction to visual character, visual quality, and the quality of scenic vistas at KOP 1. Viewers at KOP 1 are expected to have a moderately high to high sensitivity to visual change and would have sustained views of the KOP at the designated scenic vista. Therefore, due to the significant change in visual character, visual quality, and the quality of scenic vistas at KOP 1, Project operation would have a significant impact under this criterion. With the implementation of **Mitigation Measure 3.2-1** (Project Design to Reduce Aesthetic Impacts at KOP 1), turbines would be sited in order to consider surrounding topography and avoid the visibility of turbines from sensitive scenic vistas at KOP 1. Through the implementation of Mitigation Measure 3.2-1, the two turbines visible at KOP 1 (D02 and D03) would be relocated so that they are removed from views from KOP 1 or relocated so that just the turbine blades are visible above the ridgeline, the turbines would no longer dominate views from the scenic vista and the adverse impact on the scenic vista would be reduced. Additionally, if the turbines were to be removed from views from KOP 1 or relocated such that just the turbine blades were visible, then the turbines would no longer introduce dominant forms and colors along the ridgeline and would not reduce the natural harmony and overall coherence of the KOP as significantly. Therefore, with the implementation of Mitigation Measure 3.2-1, the dominance of the turbines in views from KOP 1 would be reduced and the impact of the Project to the scenic vista, visual character, and visual quality at KOP 1 would be reduced to a less-than-significant level.

As described throughout the KOP discussion above, the Project would introduce visual contrast but would not reduce visual quality significantly from locations where the Project would blend in and expand the existing visual impact of the Hatchet Ridge Project. From locations where wind turbines are not currently visible, however, the Project would introduce a greater level of visual change. In the case of KOP 1, this would result in a significant impact. If turbines were to be removed from views from KOP 1, then the visual impact of the Project at KOP 1 could be reduced to a less-than-significant level. However, given uncertainty about the feasibility of removing, or sufficiently moving, the turbines from views from KOP 1, impacts would remain significant and unavoidable even with the implementation of Mitigation Measure 3.2-1. Additionally, while the amount of visual change from most representative viewpoints is not considered significant, when considered as a whole, the Project would have a significant impact on the visual character and quality of views in the Project region. There is no feasible mitigation that could reduce the visual impact of the Project as a whole. Therefore, the impact of the Project on scenic vistas, visual character, and visual quality would be significant and unavoidable.

#### **Mitigation Measure 3.2-1: Project Design to Reduce Aesthetic Impacts at KOP 1**

When finalizing the design for the Project, the Applicant shall site turbines to avoid placing turbines within the viewshed of KOP 1, or to reduce the visibility of turbines from KOP 1. For example, if the turbines were to be moved further downslope they would be less visible from KOP 1. When submitting site plans to the County of Shasta to be approved, the Applicant shall demonstrate to the County that the impacts from KOP 1 have been avoided or reduced. The turbines shall be painted in accordance with manufacturer's and Federal Aviation Administration marking requirements. Commercial messages and symbols shall not be used on turbine structures. When the site plans are presented to the County for approval, the Applicant also shall present the type of turbine

selected to the County so that the County may ensure that no commercial messages are used on the turbines.

**Significance after Mitigation:** Impacts resulting from operation of the Project would remain significant and unavoidable with the implementation of Mitigation Measure 3.2-1.

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**b) Whether the Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**

**Impact 3.2-2: The Project could damage scenic resources within a state scenic highway. (*Less-than-Significant Impact*)**

As described above, most construction and decommissioning activities would be screened from SR 299 and would not be visible from publicly accessible viewpoints. While traffic due to deliveries and other vehicle travel to and from the Project site would increase traffic and large delivery loads on SR 299, the increase would be temporary (lasting the approximately 18- to 24-month construction period) and would be an approximately 25 percent increase in traffic during peak delivery times when compared to the visual impact from existing traffic due to timber operations and other traffic along SR 299.

As described in Section 3.2.2.3, *Regulatory Setting*, the nearest designated state scenic highway to the Project Site is a 3.3-mile section of SR 151 located approximately 28 miles from the western edge of the Project Site. Eligible State Scenic Highways near the Project Site include SR 89 (approximately 11 miles away), SR 299 east of SR 89 (approximately 11 miles away), and SR 44 (approximately 17 miles away). Additionally, SR 299 and I-5 are considered a “corridors in which the natural environment is dominant.” Impacts to these highways are discussed below.

The Project would not degrade any rock outcroppings, historic buildings, or trees along a designated scenic highway. As described in Section 3.2.2.2, *Environmental Setting*, the Project would be constructed on private timber lands, and so would not be constructed within a scenic resource that is integral to the character of a scenic highway. The Project may, however, be visible from certain portions of designated and eligible highways. As shown on Figure 3.2-5, the Project would be highly visible along SR 299. From more distant viewing locations along SR 299, the Project would be visible adjacent to the existing Hatchet Ridge turbines. As SR 299 passes through the Project Site, fewer turbines would be visible, but they would be more prominent and would appear larger due to their proximity. The Project would be partially visible from a portion of SR 89 in the Hat Creek Valley. The full extent of the Project also would be visible from the portion of I-5 that passes through Redding and from a short section of SR 151 located near I-5.

KOP 6 is located along SR 299 and is near the eligible section of SR 299 and the portion of SR 89 from which the Project would be visible (see Figure 3.2-5). KOP 7 is located near the intersection of I-5 and SR 299 and is representative of views available from SR 151. Therefore, in the following discussion, these viewpoints are used as reference points for views experienced by

motorists driving along scenic highways. Viewers along designated scenic highways are assumed to have a moderate to moderately high degree of visual sensitivity to visual changes.

As described under Impact 3.2-1, the Project would not reduce the visual quality of views from KOP 6 because it would not create contrast with existing visual conditions. The proposed turbines would blend in with existing Hatchet Ridge Wind Project turbines and would not detract from the scenic vista available from KOP 6. Visual quality of views from KOP 6 would remain high. As described under Impact 3.2-1, turbines would be visible in the distance along the ridgeline, near the existing Hatchet Ridge Wind Project turbines. The turbines would be visible in the distance above the view's natural elements and would not reduce the natural harmony of existing view. Additionally, the Project turbines would reinforce the cultural elements in existing views, reinforcing the cultural order and overall coherence of views. Therefore, the Project would not contrast with existing visual conditions and would blend in with and extend existing forms along the ridgeline. The Project would not damage any specific scenic resources visible from this KOP. As shown in Figure 3.2-5, smaller portions of the Project would be visible from SR 89 than as shown for KOP 6. Additionally, SR 89 is lined with mature trees that enclose views and significantly limit views to the west. Based on the location of SR 89, the Project would likely result in less visual contrast from SR 89 as compared to KOP 6. Therefore, the Project would have a less-than-significant impact on views from SR 299 east of SR 89 and SR 89.

KOP 7 is located near SR 299 and I-5 and is considered a reference point for views from the designated scenic highway. As described under Impact 3.2-1, in views from KOP 7, the Project would add additional turbines to the mountains visible in the background from views from the Sacramento Valley. The additional turbines would barely be visible along the ridgeline but would appear scattered and would increase the appearance of encroaching development in the foothills. As a result, the Project would reduce the cultural order and overall coherence of views from this location. Overall visual quality of views from this KOP would be reduced; however, the quality of views from this KOP would remain moderate and impacts would be less than significant. Therefore, the Project would not substantially damage scenic resources within a state scenic highway and impacts would be less than significant.

**Mitigation:** None required.

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**c) Whether the Project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area**

**Impact 3.2-3: The Project could create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. (*Less-than-Significant Impact*)**

Potential impacts relating to shadow flicker are analyzed in Section 3.11, *Hazards and Hazardous Materials*, in the context of Impact 3.11-6. As described there, any shadow flicker that would be caused by the Project would not be substantial or adversely affect daytime views in the area. Shadow flicker does not occur at night.

As discussed in Section 2.4.5.5, *Construction Schedule and Workforce*, construction is expected to occur during daytime hours; nighttime construction is not anticipated. If unexpected nighttime construction or deliveries were to be required, Project construction and decommissioning could result in a temporary increase of traffic light along SR 299 due to vehicle travel to and from the Project Site. At peak am and pm hours, the Project is expected to increase traffic on SR 299 by approximately 25 percent. If nighttime construction is required, it is not likely to require the same number of vehicles and delivery. Therefore, the increase in light from traffic on SR 299 in the event of nighttime construction is likely to be less than a 25 percent increase compared to existing conditions. Therefore, impacts from increased light from traffic during construction would be less than significant. As described in Section 3.2.4.1, *Methodology*, the Project would be set back from SR 299 and would be screened by forested areas near SR 299. During construction, the construction laydown area would have security lighting. Additionally, in the event that nighttime construction is required, nighttime construction lighting may be required. Security lighting also would be installed and maintained through the operations phase at the O&M facility. Both security lighting and construction lighting would be separated from the road and would be screened by intervening forest. However, depending on the lighting configuration, lighting has the potential to project upward and illuminate construction equipment. Additionally, construction lighting could potentially be seen from elevated locations. However, due to the screening of intervening trees, construction lighting would not be visible from most publicly accessible locations. Impacts would be less than significant.

Wind project component surfaces typically are not reflective. For example, the proposed turbines would be painted an off-white with a matte finish in accordance with FAA requirements and the proposed overhead electrical collector system would be installed on wood poles, which do not cause glare. Up to four permanent, unguied and freestanding METs also would be constructed on the Project Site at heights up to 394 feet tall. METs typically are manufactured with a galvanized finish that weathers to a dull, non-reflective patina and so would not result in a new source of glare resulting from introduction of these Project elements. A less-than-significant impact related to glare would result.

Regarding lighting, as described in Section 2.4.1, *Wind Turbine Generators*, Section 2.4.4.4, *Meteorological Equipment*, and Section 3.2.2.3, *Regulatory Setting*, safety lighting would be required pursuant to FAA standards and Advisory Circular 70/7460-1L to reduce potential hazards to aircraft from the proposed turbines and METs. Designated turbines (potentially including all turbines) and METs would have flashing red lights. Due to the height of the proposed turbines, it is expected that each turbine to be lit would require two lights, one on either side of the turbine nacelle, to mark it as a potential hazard to air navigation. The Applicant would submit an FAA-approved lighting plan to the County before turbine installation. The extent of safety lighting on turbines ultimately would be determined pursuant to FAA review.

Figure 3.2-1 and Figure 3.2-6, both of which depict the areas from which the turbine hubs would be visible, demonstrates where in the study area aircraft warning lights could be visible. The visibility of nighttime lighting and the impact of nighttime views would vary depending on the proximity of the KOP to the turbines, the extent of existing light pollution at the KOP, and the frequency of viewers during nighttime hours.

At KOP 1, which is representative of views near SR 299 and Moose Camp Road, as there is no designated camping or other area where nighttime use would be common, most users would be daytime viewers. Nighttime lighting would be highly visible from this location and would introduce such lighting where none currently exists. Vegetation would partially screen nighttime lighting in views from KOP 1; however, the proximity of viewers to turbines would increase the visual impact of nighttime lighting. Turbine lighting in views from KOP 1 would be highly visible and unavoidable in nighttime views from this location; however, due to the limited number of nighttime viewers at this location and viewing locations along this section of SR -299, the impact of lighting would not be substantial.

In views from KOP 2, which represents views from Montgomery Creek, there would be a limited number of nighttime viewers at publicly accessible locations such as the elementary school. Similarly, in views from KOP 3, which represents views from Round Mountain, limited nighttime viewers may view the Project from the nearby community center near the Project. The Project would result in nighttime lighting along the ridgelines in each of these KOPs where no lighting is currently present. Although other sources of nighttime lighting exist in the vicinity of these KOPs (such as surrounding development), the turbines would introduce a new form of nighttime lighting. The distance between viewers and the turbines would reduce the prominence of the nighttime lights. Additionally, few nighttime viewers would be expected at this location and views are expected to be brief as travelers move along SR 299.

From KOP 4, which is representative of views east of Hatchet Mountain and west of Burney, few nighttime viewers would be expected as it is not located within a community and there is no designated area for nighttime viewers to stop along SR 299. The lighting of a few Project turbines would barely be visible above the ridgeline. The lights of these few turbines would be located adjacent to the lights of the existing Hatchet Ridge turbines. Therefore, the nighttime lighting introduced by the Project would not create a significant new source of nighttime lighting.

From KOP 5, the number of nighttime viewers would be greater as Burney is the main population center east of the Project and tourists, recreationists, and residents could experience nighttime views from locations such as KOP 6. The safety lights on the Project turbines would be positioned at a similar height as the lights on the existing Hatchet Ridge Project and would appear in roughly an extended line from the existing lights along the Hatchet Ridge Project. The Project would extend nighttime lighting similar to the existing lights of the Hatchet Ridge Wind Project. However, it would not introduce a substantial new source of nighttime lighting that would create a substantial amount of contrast in nighttime views.

Viewers at KOP 6 would primarily visit the informal overlook during the daytime as it is an informal pullout along the highway that would not be likely to attract nighttime viewers. This KOP also is representative of views available while traveling along SR 299 east of SR 89, a regional arterial. These nighttime views could be experienced by communities east of the Project Site and travelers along SR 299. Additionally, the safety lights on the Project turbines would be at a similar height as the lights on the existing Hatchet Ridge Project and would appear in roughly an extended line from the existing lights along the Hatchet Ridge Project. Therefore, the nighttime lighting introduced by the Project would not create a substantial new source of nighttime lighting.

At KOP 7 the number of viewers would be higher due to nighttime traffic along SR 299. Project safety lighting would be visible alongside the safety lighting of the existing Hatchet Ridge turbines. Due to the scattered order of turbines at this location, the nighttime safety lighting would not appear in a line and would appear more scattered. While the safety lights associated with Hatchet Ridge are clustered along the ridgeline and distant, the Project would extend the nighttime lighting associated with the Project horizontally and vertically along the ridgeline.

From KOP locations 4 through 7, the additional nighttime lighting of the Project turbines would extend the nighttime lighting of the existing Hatchet Ridge Wind Project. If alternating blinking lighting between the Hatchet Ridge turbines and the proposed turbines were to occur the visual impact of the nighttime lighting would increase. However, at these locations, the Project would not introduce a significant new source of nighttime lighting that would contrast with existing nighttime lighting conditions. In views from KOP 1, 2, and 3, the Project turbines would introduce nighttime lighting where nighttime light pollution is currently limited to light associated with rural development. Viewer exposure to nighttime lighting at KOP 1 and along SR 299 west near Moose Camp road would be very limited and; therefore, the nighttime lighting introduced by the Project would not have a substantial impact on nighttime views. Viewer exposure within communities west of the Project Site would be slightly greater due to nearby community resources such as community centers and clinics. Some of these locations would be low due to the limited number of viewers during nighttime hours. However, in these views, due to existing sources of lighting, the space between the viewer and the turbines, and the few turbines visible from each of the KOPs, the additional source of nighttime lighting would not have a substantial impact on nighttime views. Therefore, impacts under this criterion would be less than significant.

**Mitigation:** None required.

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### 3.2.4.3 PG&E Interconnection Infrastructure

As described in Section 3.2.2.2, *Environmental Setting*, the Project Substation, Switching Station and associated PG&E interconnection facilities would be located within the Project Site, away from publicly accessible viewpoints. No mitigation would be required specific to the PG&E interconnection infrastructure. As part of the Project, construction, operation, maintenance and decommissioning of the PG&E interconnection infrastructure would result in a less-than-significant impact relating to the potential for a substantial adverse effect on a scenic vista, a substantial degradation of the character or visual quality of views from publicly accessible vantage points (i.e., any of the KOPs), or to substantially damage scenic resources within a state scenic highway. Similarly, because the four to six new transmission support structures and other infrastructure would not include substantial new sources of light or glare, the Project-proposed construction and modifications of PG&E infrastructure would have a less-than-significant impact.

### 3.2.4.4 Direct and Indirect Effects of Alternatives

#### ***Alternative 1: South of SR 299***

Under Alternative 1, the up to seven turbines north of SR 299 would not be constructed, resulting in incrementally fewer obstructions in the visual landscape and incrementally fewer safety lights. Depending on the specific viewing location or KOP, this alternative could reduce aesthetic impacts. However, from certain locations, clustering of turbines south of SR 299 could reduce the coherence between the Hatchet Ridge Project and the proposed Project, creating an appearance of multiple separate wind energy generation projects encroaching in the foothills. Any increase or decrease in the aesthetic impacts created by Alternative 1 would not be significant. Therefore, depending on the viewing location or KOP, Alternative 1 could either slightly increase or reduce aesthetic impacts. Impacts would remain less than significant relating to scenic vistas, publicly accessible vantage points (i.e., the KOPs), scenic resources within a state scenic highway, and new sources of light or glare.

#### ***Alternative 2: Increased Setbacks***

Under Alternative 2, the setbacks required between turbines and residences and SR 299 would be increased. A setback of three times the turbine height would be required from residences and a setback of 1.5 times the turbine height would be required from SR 299 and from two private roads. The resulting spacing of the turbine strings could reduce from certain KOPs (e.g., KOPs 1, 2, and 3), the visibility and visual impact of turbines from SR 299 and regarding views from KOPs near SR 299. This alternative would slightly reduce the overall visual impact of the wind energy development compared to the Project. However, impacts to visual quality and character would remain significant and unavoidable.

#### ***No Project Alternative***

If the No Project Alternative is implemented, none of the proposed wind turbines and associated transformers, associated infrastructure, or ancillary facilities would be constructed, operated and maintained, or decommissioned on the Project Site, FAA-required safety lighting would not be installed. The proposed overhead and underground electrical collector system and communications lines would not be developed; and the onsite collector substation, switching station, and operation and maintenance facility would not be constructed. Laydown areas would not be cleared, no new access roads would be constructed, and no existing roads would be improved to achieve the widths needed to accommodate the delivery of turbine components. The Project Site would continue to be operated as managed forest timberlands. Because there would be no change relative to baseline conditions, the No Project Alternative would create no impact related to Aesthetics.

The Project Site is zoned for timber production. Pursuant to regulations implementing the California Timberland Productivity Act (Government Code §51100 et seq.; 14 Cal. Code Regs. §897[a]), there is a legal presumption that “timber harvesting is expected to and will occur on such lands.” The regulations further specify that timber harvesting on such lands “shall not be presumed to have a Significant Adverse Impact on the Environment” (14 Cal. Code Regs. §898). Therefore, the No Project Alternative, including anticipated timber harvesting, is not presumed to

result in a significant adverse individual or cumulative effect to aesthetics. CAL FIRE would review any future timber harvesting proposal to evaluate any potential project-specific, site-specific environmental impacts.

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### 3.2.5 Cumulative Analysis

The geographic scope for cumulative effects is the 30-mile radius identified in Section 3.2.2.1, *Study Area*. That distance is about as far as the eye can distinguish features of the Project. Beyond that distance, a viewer would not easily be able to discern Project turbines in combination with another project or feature. The Project would have visual impacts during all phases of construction (short-term and temporary impacts during construction and decommissioning and long-term impacts during operation); therefore, the temporal scope for cumulative impacts spans from Project construction through decommissioning.

#### 3.2.5.1 Scenic vistas and the Character or Visual Quality of Views from Publicly Accessible Vantage Points or from State Scenic Highways

As described above, the Project would have a potentially significant impact on views from scenic vistas and publicly accessible views unless recommended mitigation measures are implemented, and a significant unavoidable impact on the scenic vista, visual character and visual quality of views from KOP 1. If implemented, it is possible that Mitigation Measure 3.2-1 would reduce this impact to a less-than-significant level; however, given uncertainty in light of the measure's feasibility, the Project's incremental contribution to cumulative effects would be significant and unavoidable. While the Project would not create a substantial amount of contrast with the existing visual character or quality from most locations, taken together, the overall visual impact of the Project would be significant due to the number of publicly accessible viewpoints that would have views of the Project and the impact to visual quality across the region.

Within the study area, cumulative projects that would cause impacts that could combine with the impacts of the Project include the Hatchet Ridge Wind Project, ongoing commercial timber operations in the area, forest thinning Projects, the ongoing effects of climate change as it pertains to drought and wildfire, existing and proposed power lines and electrical infrastructure, active and reclaimed mining sites, and commercial development (see Section 3.1.2.1, *Cumulative Scenario*). These types of projects could combine with the impacts of the Project when viewed together in the same view or when viewed in succession along a travel route. Timber operations in the area have an ongoing adverse impact on visual character and quality by increasing the presence of clear cut areas, logging trucks, and equipment along SR 299, thereby reducing the natural harmony of views in the area. The Hatchet Ridge Wind Project has an ongoing, significant adverse effect on visual character and quality in the region by creating contrast between the natural environment and man-made features or interruptions to the landscape. The Hatchet Ridge Project, ongoing logging operations, and other cumulative projects combine to create a significant and adverse cumulative impact to aesthetic resources.



In views from certain KOP locations such as KOPs 4-7, the Project would be visible in the same view as the Hatchet Ridge Wind Project. From most of these viewing locations, the Project would be visible as an extension of the Hatchet Ridge Project (KOPs 4, 5, and 6), from other locations, the Project would appear scattered from Hatchet Ridge Wind Project components, creating an impression of increasing encroaching development in the foothills (KOP 7). In other viewing locations, such as from KOP 1, 2, and 3, the Project would not be visible alongside Hatchet Ridge Wind Project turbines, but would be viewed cumulatively as a viewer drives along SR 299. Therefore, the Project would contribute to the existing significant adverse cumulative impact to aesthetic resources as the Project would increase the amount of man-made development and contrast with the natural environment as viewed from certain locations and seen in succession driving along SR 299.

From most viewing locations where both Hatchet Ridge and the proposed Project would be visible, the Project would appear as an extension of Hatchet Ridge. The Project would result in a noticeable increase in the number of turbines visible from some locations resulting in an increase in the amount of contrast in views. In some views (as in from KOP 7), the Project would appear scattered and distinct from Hatchet Ridge, and would significantly increase the amount of contrast with the natural environment. Therefore, from vantage points where the Project turbines would be visible adjacent to existing turbines, the Project's contribution to the existing significant cumulative impact would be cumulatively considerable.

When viewed in succession, as when viewed driving along SR 299, the Project would intermittently be visible alone and in combination with the Hatchet Ridge Project. Under existing conditions, certain portions of SR 299 have no views of turbines and retain the visual quality of a route along which the natural environment is dominant. The proposed Project would increase the encroachment of development along this route and reduce the natural harmony of views along SR 299. The Project would extend the presence of wind development as visible from the Sacramento Valley, through the Project Site and in Hat Creek Valley. Due to increase in the number of turbines visible, the scattered nature of the turbines, and the scale of the turbines, as one drives along SR 299, the Project would result in an increasing dominance of wind turbines within the region. Therefore, the Project would cause a considerable contribution to an existing significant adverse cumulative impact. No reasonable, feasible mitigation measures are available to reduce the Project's incremental contribution to a level that it would not be cumulatively considerable.

### **3.2.5.2 Scenic Resources within a State Scenic Highway**

As described above, the Project would have a less-than-significant impact to scenic resources within a state scenic highway. Projects included in the cumulative scenario which could have an impact on scenic resources within a state scenic highway include ongoing logging and timber operations and the Hatchet Ridge Wind Project. Views toward the Project area from the portion of SR 151 that is near I-5 and SR 89 represent long distance views where the Hatchet Ridge turbines and existing logging is not highly visible in views toward the Project Site. As described in the analysis above, mature trees line SR 89 and significantly enclose views. The Project would be only visible from only a few locations where there are open views to the west. In these instances, the turbines would appear very small along the ridgeline and would not significantly

increase visual contrast. Along SR 151, near the intersection with SR 299, the Hatchet Ridge Wind Project turbines are barely visible along the distant ridgeline. The proposed Project would elongate the extent of turbines slightly, but this change would be barely perceptible due to the distance between SR 151 and the Project site and intermittent buildings. Therefore, the Project would not result in an impact to visual quality from SR 151 that could be cumulatively considerable.

From SR 299, Hatchet Ridge Wind Project turbines are intermittently visible as one drives along SR 299, and dominant in certain views from SR 299 leading to a significant cumulative condition with regard to impacts to views from SR 299. As described above, the Project would increase the number of turbines visible from a given location, blending in with the existing Hatchet Ridge Wind Project turbines. In other views, the Project would be visible separately from the other project. For the reasons described above, the Project would not have a cumulatively considerable contribution to views available from SR 299; therefore, the Project would not have a cumulatively considerable impact to views from scenic highways.

### **3.2.5.3 Sources of Substantial Light or Glare**

Within the study area, cumulative projects that could combine with the glare or lighting impacts of the Project including the Hatchet Ridge Wind Project, increased traffic along highways, and increased rural and commercial development. Due to the Hatchet Ridge Wind Project, there is an existing significant and adverse cumulative impact to the nighttime lighting environment. As described above, from certain locations, the lighting from the proposed turbines would be viewed as an extension of the lighting from the existing project. From certain locations, the number of turbines visible would double, resulting in a doubling of the lights visible across ridgelines. While the impact of the Project on existing conditions at these viewing locations would not be considered significant, the extension of turbine lighting across ridgelines would result in a cumulatively considerable contribution to an existing adverse cumulative condition. No reasonable, feasible mitigation measures are available to reduce the Project's incremental contribution to a level that it would not be cumulatively considerable.

From other locations, Project lighting would be visible cumulatively, as one drives along SR 299, decreasing the area along SR 299 where no turbine lighting is visible. As shown in views from KOP 1, 2, and 3 few turbines would be visible from SR 299. This would result in additional locations along SR 299 where a few safety lights would be visible. The Project would result in an extension of areas along SR 299 where turbine lighting is visible, resulting in turbine lighting in areas with very limited nighttime lighting. Therefore, the Project would have cumulative considerable contribution to an adverse cumulative condition. No reasonable, feasible mitigation measures are available to reduce the Project's incremental contribution to a level that it would not be cumulatively considerable.

### 3.2.6 References

- California Department of Transportation (Caltrans), 2019. List of eligible and officially designated State Scenic Highways, August, 2019. Available online: <https://dot.ca.gov/programs/design/lap-landscape-architectureand-community-livability/lap-liv-i-scenic-highways>. Accessed February 20, 2020.
- Federal Aviation Administration (FAA), 2018. Advisory Circular: Obstruction Marking and Lighting. AC No. 70/7460-1L, Change 2. August 17, 2018.
- Federal Highway Administration (FHWA), 2015. Guidelines for the Visual Impact Assessment of Highway Projects. (FHWA-HEP-15-029.) January 2015.
- Shasta County, 2004. Shasta County General Plan as Amended Through September 2004. September. Available online: [https://www.co.shasta.ca.us/index/drm\\_index/planning\\_index/plng\\_general\\_plan.aspx](https://www.co.shasta.ca.us/index/drm_index/planning_index/plng_general_plan.aspx). Accessed February 20, 2020.