This section provides an overview of the visual character, scenic resources, views, scenic highways, and sources of light and glare that are encountered on the project site and the surrounding area. This section concludes with an evaluation of the impacts and recommendations for mitigating impacts. There were two written comments received during the public review period for the Notice of Preparation regarding this topic:

- A letter to Shasta County from resident Kirk Sanders, dated July 31, 2009 indicated that the project may result in adverse impacts to scenic resources and result in increased nighttime lighting.
- An undated letter to Shasta County signed by residents Ashley Wayman, Tim Wedan, and Barbara Wedan, received on August 3, 2009 indicated that the height of the proposed boiler may result in impacts to visual resources and the project may result in impacts related to light and glare.

Information in this section is derived primarily from the following:

- Shasta County General Plan (September, 2004)
- Shasta County Planning Permit Master Application (July 2007)
- Project site plan submitted by SPI (July 2010)
- A site visit conducted by De Novo Planning Group (July 21, 2009)

3.1.1 ENVIRONMENTAL SETTING

PROJECT SITE AND SURROUNDING AREA

The project site is located on a 121.39-acre parcel at the end of Riverside Avenue, five-tenths of a mile west of the Interstate 5. The project site is bounded by the Sacramento River to the northeast, SR 273 to the southwest, and Spring Gulch to the southeast. The Siskiyou Forest Products manufacturing facility is located to the southwest of the project site. Lands to the northwest of the project site consist of agricultural lands and undeveloped open space. The northwest boundary of the site is bordered by an Anderson Cottonwood Irrigation District (ACID) Canal Overflow ditch. The properties adjacent to the project site are generally used for commercial and light industrial activities. There are existing residences in a mobile home park located across the Sacramento River to the north and northeast of the project site. There are a limited number of existing residences located across SR 273 to the southwest of the project site.

The project site is owned by Sierra Pacific Industries (SPI). The project site is an active lumber manufacturing facility, which is used to manufacture lumber, wood poles, metal/machinery components, generate power through an existing biomass cogeneration facility, store and re-distribute manufacturing parts, repair trucks and machinery, ship wood chips and lumber by truck and rail.

There are numerous existing structures located throughout the approximately 121-acre project site. These existing structures are shown on Figure 2-5, and are used to support the existing

operations on the site, as described above. The heights of the existing structures on the project site are shown in Table 3.1-1 below.

TABLE 3.1-1: HEIGHT OF EXISTING ON-SITE STRUCTURES

STRUCTURE	HEIGHT (IN FEET)
Truck Shop	16
Equipment Shop	27
Fabrication Shop	43
Warehouse	32
Dry Shed	52
Planer	60
Kilns	24
Cooling Tower	30
Diesel Fuel Tanks	16
Forestry Lab	29
Lumber Storage Shed	26
Existing Boiler	60
Sawmill	54
Chipper/Hog	29
Fuel House	52
Turbine	40
Electrostatic Precipitator	75

SOURCE: AUTHORITY TO CONSTRUCT, PERMIT APPLICATION (ENVIRON, MARCH 2010), AND SPI, APRIL 2010

The northeastern portion of the project site, which runs parallel to the Sacramento River, is currently used to stockpile logs that are delivered to the mill and awaiting processing. There is a large portal crane that is used to unload the logs from trucks and move them into storage piles. The log piles reach up to 40 feet in height and general provide a visual shield of the interior of the SPI site from the Sacramento River and land uses to the northeast of the site.

Views of the interior portions of the project site from the east are generally obstructed by lumber processing facilities buildings, including dry sheds, dry kilns, planner, sorter, and other structures that generally resemble warehouse buildings when viewed from the exterior. South of the above-mentioned facilities, along the southern portion of the site's eastern boundary, the site is bounded by a dense stand of trees, which generally obstruct views of the site's interior from land uses to the southeast of the site. There are numerous finished lumber storage piles located throughout the eastern portion of the site which also serve to obstruct views of the site's interior from the surrounding land uses to the east.

The project site is highly visible from SR 273, which runs along the southwestern boundary of the SPI property. Views of the interior of the project site from SR 273 are generally obstructed by the existing fabrication shop and hardware parts and storage buildings, which generally resemble warehouse buildings when viewed from the exterior.

There are few structures or visual obstacles to views of the project site from the northwest.

Figures 2-4 and 2-5 show the project site plan, which includes the existing structures referenced above. Figure 2-3 shows an aerial view of the project site, where the above referenced features and structures can be seen. As shown in the above-referenced figures, there are two water storage ponds located near the center and eastern portion of the project site. The project site is traversed by a series of dirt roadways that are currently used during normal operation of the SPI facility.

A rail line runs parallel to SR 273 along the southwestern boundary of the site. The rail line also provides direct access to the site from the southeast.

Scenic Highways and Corridors

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. The only officially designated State Scenic Highway within Shasta County is a portion of SR 151 immediately south of Shasta Lake. The project site is not visible from SR 151. According to Caltrans, segments of SR 299 and SR 44 are considered to be eligible for designation as a State Scenic Highway, but are not currently designated. The project site is not visible from the above referenced highway segments.

As described in the Shasta County General Plan (2004), the term "scenic highways," refers to any freeway, highway, road, street, boulevard, or other vehicular right-of-way which traverses an area of unusual scenic quality as indicated on Figure SH-1 of the County General Plan. An "official scenic highway" is a scenic highway which has been designated by the State of California, according to procedures which are administered by Caltrans.

The project site is visible from I-5 and SR 273. However, these highway segments are not considered scenic highways, as defined in the Shasta County General Plan.

Light and Glare

There are two typical types of light intrusion. First, light that emanates from the interior of structures and passes out through windows. Second, light that is projected from exterior sources, such as street lighting, security lighting, and landscape lighting. “Light spill” is typically defined as the presence of unwanted and/or misdirected light on properties adjacent to the property being illuminated. Light introduction can be a nuisance to adjacent residential areas, diminish the view of the clear night sky, and, if uncontrolled, can disturb wildlife in natural habitat areas.

Glare is the sensation produced by luminance within the visual field that is significantly greater than the luminance to which the eyes are adapted, which causes annoyance, discomfort, or loss in visual performance and visibility.

The existing SPI operations at the project site run between 16 and 24 hours a day, and there are significant existing sources of nighttime lighting currently on the project site. Existing sources of nighttime light include security lighting, illumination of outdoor work areas by floodlights, and

headlights from trucks and vehicles accessing and traversing the project site at night. Current flood lighting at the existing cogeneration facility includes:

- Seven 400w High Pressure Sodium lights
- One 1000w High Pressure Sodium light
- Three 1000w Metal Hallide

Comments received during the NOP scoping period indicated that residents in the vicinity of the project site experience nuisances from the existing nighttime lighting on the project site. In general, light spillage from the project site onto adjacent properties is minimized by vegetation surrounding the site, and by structures and lumber storage piles located around the perimeter of the project site. However, while direct light spillage onto adjacent properties generally does not occur, the amount of existing nighttime lighting on the site, as described above, can result in artificial ambient nighttime lighting, which can adversely impact views of the night sky in the project vicinity.

3.1.2 REGULATORY SETTING

STATE

California Scenic Highway Program

The intent of the California Scenic Highway Program is "to protect and enhance California's natural scenic beauty and to protect the social and economic values provided by the State's scenic resources." Caltrans administers the program, which was established in 1963 and is governed by the California Streets and Highways Code (§260 et seq.). The goal of the program is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of the adjacent land. Caltrans has compiled a list of state highways that are designated as scenic and county highways that are eligible for designation as scenic.

Scenic highway designation can provide several types of benefits to the region. Scenic areas are protected from encroachment of inappropriate land uses, free of billboards, and are generally required to maintain existing contours and preserve important vegetative features. Only low density development is allowed on steep slopes and along ridgelines on scenic highways, and noise setbacks are required for residential development.

LOCAL

Shasta County General Plan

The Scenic Highways Element of the County's General Plan includes important concepts and guidelines that apply to the type, location and character of both private and public development projects for new and existing areas of the County. The General Plan contains the following objectives and policies related to scenic highways:

Objectives

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.

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.

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.

Policies

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.

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

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, Lighting, of the County Zoning Ordinance (as amended through July 2003) contains the following aesthetic-related standard that would apply to the proposed project:

> *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.*

3.1.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have significant impact on aesthetics if it will:

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

IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Project implementation would not result in impacts to scenic resources within the vicinity of a designated State Scenic Highway (Less than Significant)

As described above, the project site, which is located north of the City of Anderson, is visible from SR 273 and from I-5. These roadway segments are not classified as a State Scenic Highway by Caltrans, nor are they classified as "eligible" for designation as a State Scenic Highway.

The only officially designated State Scenic Highway within Shasta County is a portion of SR 151 immediately south of Shasta Lake. The project site is not visible from SR 151. According to Caltrans, segments of SR 299 and SR 44 within Shasta County are considered to be eligible for designation as a State Scenic Highway, but are not currently designated. The project site is not visible from any State Scenic Highway segments. This is a **less than significant** impact and no mitigation is required.

Impact 3.1-2: Project implementation may result in substantial adverse effects on scenic vistas and resources or substantial degradation of visual character (Significant and Unavoidable)

There are natural features and public corridors in the vicinity of the project that have relatively high visual qualities. The project site is visible from I-5, SR 273, the Sacramento River, and properties in the vicinity of the site. The Sacramento River is located immediately northeast of the project site. The river and the riparian and woodland habitat along the riverbanks are scenic and visually pleasing to most observers. Additionally, there are pastoral agricultural lands located to the northwest of the project site that possess a relatively high visual quality. Lands further to the west of the project site, west of SR 273, include hills, creeks, canyons and ridgelines, all of which have a relatively high visual quality.

Figure SH-1 from the 2004 Shasta County General Plan identifies the segment of I-5 that runs from the City of Anderson to the City of Redding in the vicinity of the project site as a "*corridor in which the natural and man-made environment contrast*." While I-5 is not designated an official scenic corridor, it is acknowledged to have scenic characteristics.

The segment of SR 273 that runs adjacent to the project site's western boundary is not designated as a State Scenic Highway, and is not described in the in the County General Plan as a roadway segment that is eligible for designation as a Scenic Highway, nor is it described in the General Plan as a roadway corridor in which the natural environment is dominant.

The proposed project, which consists of the cogeneration facility and supporting buildings and infrastructure, would be constructed in the approximate center of the existing SPI lumber facility, as shown in Figure 2-3. The project site is highly disturbed with industrial uses, and there is an existing cogeneration facility immediately adjacent to the location of the newly proposed cogeneration facility. The project site is currently considered to have a very low visual quality due to the prevalence of the existing industrial structures and activities. There is little to no native vegetation within the interior of the project site. No trees would be removed as a result of project construction and implementation. Overall, the construction and operation of the proposed project would not adversely change the existing visual character of the interior of the project site, as it would be an expansion and continuation of the existing on-site industrial uses and features.

Additionally, the existing structures and lumber piles that are located around the perimeter of the site would provide visual screening of the newly proposed structures from the surrounding area.

The newly proposed cogeneration facility includes a boiler that would reach a maximum height of 115 feet, an electrostatic precipitator that would be 85 feet tall, and a fuel shed that would be 48 feet tall. The existing boiler on the project site has a height of 60 feet, and the existing ESP is currently the tallest structure on the site, with a height of 75 feet. The new boiler will be 55 feet taller than the existing boiler, and 40 feet taller than the existing ESP, which will make the new boiler more visible from the nearby land uses as well as from SR 273, I-5 and the Sacramento River.

The 115-foot tall boiler would be one of the more prominent visual features in the project area due to its height, and would be highly visible from a wide area surrounding the project site. While

the project would not degrade the visual character of the interior of the project site, it would degrade the overall visual character of the project area by increasing the overall mass and height of development on the project site and introducing a structure that, due to its height, will be highly visible from the surrounding area. This is considered a **significant** impact.

MITIGATION MEASURE

Mitigation Measure 3.1-1*: All of the proposed structures built as part of the SPI Cogeneration Facility shall include surfaces that are non-reflective and painted or finished in neutral earth-tones to reduce their visual contrast with the surrounding landscape. The final exterior design and colors used on the proposed structures shall be reviewed and approved by the County prior to issuance of building permits.*

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure 3.1-1 would reduce the visual impacts of the project by ensuring that non-reflective building materials and neutral colors are used, however, the proposed project will remain visible from nearby land uses and scenic corridors. Therefore, this impact would remain **significant and unavoidable**. There is no additional feasible mitigation available that would reduce this impact to a less than significant level.

Impact 3.1-3: Project implementation may result in light and glare impacts (Less than Significant with Mitigation)

Daytime glare can occur when the sunlight strikes reflective surfaces such as windows, vehicle windshields and shiny reflective building materials. The proposed project would introduce new structures into the project site that may result in increases in daytime glare if reflective building materials are used. This is considered a **potentially significant** impact.

The project would not result in significant increases in the number of vehicles parked at the SPI facility at any given time. It is estimated that a maximum of 23 additional truck trips per day may be generated by the proposed project, and that the project would result in the need to add up to six additional employees split between rotating shifts. The small increase in the number of vehicles accessing the project site as a result of project approval would not result in a significant increase in daytime glare from vehicle windshields. As described above, the perimeter of the SPI site contains numerous visual obstructions, including buildings, lumber piles, log stacks and trees that act as a visual screen to the interior of the project site, which would further reduce the potential for daytime glare impacts from vehicle windshields to occur.

The newly proposed structures for the cogeneration facility would include exterior lighting to allow for nighttime operations, worker safety and security. The SPI facility currently operates 16 to 24 hours per day, and the entire site is currently illuminated during the nighttime hours. There are exterior lights currently located on the existing cogeneration facility, as well as throughout the rest of the SPI site. As a result, views of the night sky in the vicinity of the SPI site are reduced due to light spillage from the site and the glow from exterior lighting currently in place that illuminates the nighttime sky. An increase in ambient nighttime lighting in the project area has the potential

to result in sleep disruption or disturbances to adjacent residential areas. It has been found that exterior lighting in the blue-white spectrum may be particular disturbing to sleep cycles. Although light in the orange-yellow spectrum may be less disturbing to sleep, it does not provide particularly good color rendition, which can limit the effectiveness of light in the orange-yellow spectrum for lighting areas where work tasks are being performed.

For the purposes of this CEQA analysis, impacts related to the proposed project are compared to the existing environmental baseline condition. With respect to nighttime illumination, existing lighting conditions at the site currently contribute to illumination of the night sky and may spill light onto adjacent uses. The addition of the lighting associated with the proposed project would not result in a noticeable increase in illumination of the nighttime sky from exterior lighting associated with the proposed project. However, installation and use of exterior lights may increase light spillage onto adjacent land uses, which is considered to be a **potentially significant** impact.

In order to ensure that nighttime lighting impacts are reduced to the greatest extent feasible, the project would be subject to the requirements of Section 17.84.050, Lighting, of the County Zoning Ordinance (as amended through July 2003), which is included as Mitigation Measure 3.1-2.

MITIGATION MEASURES

Mitigation Measure 3.1-2*: Consistent with the requirements of Section 17.84.050, Lighting, of the County Zoning Ordinance (as amended through July 2003):*

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.

All exterior lighting shall be designed to emit light that is within the orange-yellow spectrum to the greatest extent feasible. The use of lighting in the blue-white spectrum shall be limited to areas where illumination is required in order for outdoor work in the immediate vicinity of the project to occur safely.

The lighting plan shall demonstrate that light spillage in the blue-white spectrum onto adjacent properties does not increase beyond existing conditions. The lighting plan shall also demonstrate that any light spillage in the orange-yellow spectrum is reduced to the greatest extent feasible, while still meeting the safety and security requirements of the project site.

Prior to issuance of the Conditional Use Permit, the project applicant shall submit a lighting plan to Shasta County that meets the requirements outlined above. Once the project is fully operational, the County shall verify that all exterior lighting meets the requirements of this measure.

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure 3.1-2 would reduce impacts associated with nighttime lighting and light spillage onto adjacent properties. Additionally, the project is subject to the requirements of Mitigation Measure 3.1-1 which would require the use of non-reflective materials on all structures associated with the proposed project. The implementation of these two mitigation measures would reduce daytime glare and nighttime lighting impacts to a **less than significant** level.