

3.8 Visual Quality and Aesthetics

The project area for visual quality and aesthetics covers a 30-mile radius from the Energy Facility stacks and from the southernmost tower of the electric transmission line. This is a predominantly undeveloped area where the primary land uses are forests and farming. A number of scenic and aesthetic resources, described below, surround the proposed Energy Facility. The elements of the Energy Facility that could affect the visual and aesthetic quality of the environment would be four stacks and 38 transmission towers. The stacks would be painted tan to blend in with their surroundings. The Energy Facility would use nonglare, low-impact lighting with shielded or cutoff fixtures, and the lighting would be directed downward. The proposed Energy Facility would not degrade or obstruct any scenic or aesthetic resources designated in pertinent Federal, state, and local plans.

The information presented in this section is based on the studies and analysis conducted for the SCA as amended by Amendments No. 1 and No. 2, filed with EFSC on July 25, 2003, and October 15, 2003, respectively.

3.8.1 Affected Environment

The landscape of the project area is largely undeveloped, with farms being the primary development. Within the 30-mile project area, natural resources such as national forests and existing and proposed wilderness trails, and a scenic highway surround the proposed Energy Facility. Table 3.8-1 shows the resources that have been designated as scenic or aesthetic in Federal land management, local land use, and other plans. To provide a comprehensive and conservative assessment of scenic and aesthetic values, this analysis is based on the assumption that if a location is listed as a scenic or aesthetic resource in an applicable plan, it is a significant scenic or aesthetic resource. The analysis then considers whether the proposed project would have any significant visual impact on these significant scenic areas.

The following sections describe the resources in the proposed project area.

3.8.1.1 OC&E Woods Line State Trail

The OC&E Woods Line State Trail is a state park and recreational trail near the towns of Olene and Dairy. This state park does not have a special scenic designation (Beauchmin, 2002). The Energy Facility would be located approximately 8 miles from the trail at its nearest point.

3.8.1.2 Volcanic Legacy Scenic Byway and Modoc Volcanic Scenic Byway

The Volcanic Legacy Scenic Byway and Modoc Volcanic Scenic Byway have been designated as National Scenic Byways by the U.S. Secretary of Transportation. This designation is based on a roadway's archeological, cultural, historic, natural, recreational, and scenic qualities. To receive this designation, a road must possess multiple intrinsic qualities that are nationally significant and contain one-of-a-kind features that do not exist elsewhere. Views from these two volcanic scenic byways are typically of the natural foreground features, such as volcanic formations and wildlife refuges.

3.8.1.3 State Routes 161 and 139

State Routes 161 and 139 are eligible for designation as scenic highways but have not yet been officially designated as such. Nevertheless, they are labeled as scenic highways on several road maps generally available to the public.

3.8.1.4 Miller Creek Area of Critical Environmental Concern

Miller Creek is a special area managed by BLM as an area of critical environmental concern (ACEC) with the objective of maintaining, protecting, or restoring natural ecological processes and wildlife and scenic resources. According to BLM's Klamath Falls Resource Area Resource Management Plan EIS (BLM, 1994), the Miller Creek ACEC is a scenic, natural ecosystem that is a unique feature of Gerber Plateau. Miller Creek would be managed as Visual Resources Management Class II that allows for low levels of visible change. Activities may be seen but should not attract attention from the casual observer (BLM, 1995).

3.8.1.5 Lava Beds National Monument

Although Lava Beds National Monument is not a designated scenic resource, it is a national monument with high scenic value. The purpose of the monument is to preserve and protect the significant natural and cultural resources of the area.

3.8.1.6 Lower Klamath Lake National Wildlife Refuge (NWR) and Tulelake NWR Wildlife Overlooks

These two wildlife overlooks are located approximately 15 and 11 miles from the Energy Facility site. The NWR has not designated these overlooks as scenic resources, but as wildlife viewing areas.

3.8.1.7 Bloody Point, Petroglyphs, and Battle of Scorpion Point Vista Points

Modoc County has designated these three historic sites – Bloody Point, Petroglyphs, and Battle of Scorpion Point – as vista points. They are 9, 16, and 19 miles, respectively, from the closest proposed transmission tower.

3.8.2 Environmental Consequences and Mitigation Measures

The elements of the proposed Facility that could affect the visual and aesthetic quality of the environment would be four stacks and 38 transmission towers.

The four stacks would range in height from 150 to 200 feet, and would be painted a neutral tan to blend into the horizon, making them difficult to discern from a distance.

The 38 transmission towers would range in height from 100 to 165 feet, and would be constructed south of the Energy Facility for about 7.2 miles. Most of the transmission towers would be 105 to 110 feet tall.

As described below, the Energy Facility would have no significant unavoidable adverse impacts on scenic or aesthetic resources.

Impact 3.8.1. Visual impacts to scenic and aesthetic resources would be minimal.

Assessment of Impact. Visual impacts to scenic and aesthetic resources could potentially result from the stacks and transmission towers for the electric transmission line.

Three sets of visual analyses were performed to determine visual impacts to scenic and aesthetic resources within the 30-mile project area. These analyses were based on lines of sight from the scenic and aesthetic resources to the stacks and transmission lines. Figures 3.8-1 and 3.8-2 show the lines of sight to the stacks and transmission towers, respectively.

The line-of-sight analysis determined that the stacks and transmission towers would be partially visible under clear weather conditions from the following scenic areas: OC&E Woods Line State Trail, Volcanic Legacy Scenic Byway, and BLM Miller Creek ACEC.

At least one transmission tower, but not the stacks, would be visible from the following scenic areas: Bloody Point, Petroglyphs, and Battle of Scorpion Point (historic sites with vista points); State Routes 161 and 139; Lower Klamath NWR Wildlife Overlook; and Tulelake NWR Wildlife Overlook.

From a small portion of the Modoc Volcanic Scenic Byway, at least one transmission tower would be visible, but not the stacks.

The following sections describe in more detail the potential impacts by scenic or aesthetic resource.

OC&E Woods Line State Trail. According to the line-of-sight analysis, the stacks and transmission towers would be visible from portions of the OC&E Woods Line State Trail, a state park and recreational trail, near the towns of Olene and Dairy. The landscape analysis systems established by the U.S. Forest Service and other agencies classify an object located approximately 8 miles distant (like the Energy Facility from the trail) as being in a scene's far background. These landscape assessment systems generally define a landscape scene's background zone as starting 3 to 4 miles in the distance, and characterize this zone as the area in which texture has disappeared and color has flattened, and in which landform ridgelines and horizon lines are the dominant visual characteristic (USDA Forest Service, 1995).

This conclusion is consistent with the findings of various studies of the perceived effects of electric transmission lines, which determine that for residential viewers, electric transmission lines are most likely to be noticed and perceived to have negative effects when they are relatively close to viewers' homes (no more than 2 miles away) and that transmission towers located 1 mile or less from homes are the ones most likely to be perceived in negative terms (Economics Consultants Northwest, 1987; Beauregard Conseil, 1990 and 1995; Entre les Lignes, 1993). In a study of evaluations of simulated views of transmission towers located in parkland settings in Australia, transmission towers were found to be perceived to have a negative effect on scenic quality at a distance of only up to 0.5 kilometer (about one-third of a mile) (Bishop, Hull, and Leahy, 1985). Seen from a distance of approximately 8 miles, the stacks and transmission towers would blend into the viewshed and would not substantially alter the visual character or views of the landscape.

Users of bicycle and hiking trails typically focus on their immediate surroundings unless there are established scenic viewpoints at which to stop. The OC&E Woods Line State Trail does not have a scenic designation, nor does it have any scenic viewpoints along this portion of the trail. Consequently, the Facility would not have a significant visual impact on users of the OC&E Woods Line State Trail.

Volcanic Legacy Scenic Byway and Modoc Volcanic Scenic Byway. According to the line-of-sight analysis and as shown in Figures 3.8-1 and 3.8-2, the stacks and transmission towers could be visible from the Volcanic Legacy Scenic Byway (U.S. 97 in Oregon) for a brief period of less than 1 mile while passing through Klamath Falls, and could be seen at a minimum distance of 20 miles. From the Modoc Volcanic Scenic Byway (in California), the transmission towers could be visible from a minimum of 10 miles near Tulelake. Given the location in the far background, the transmission towers would be very tiny, if visible at all, in the overall view and would blend in with the panorama; hence, they would not have an adverse effect on the character or quality of views from these roadways. For example, the Captain Jack Substation could not be seen from the Lava Beds National Monument with a high-powered spotting scope.

State Routes 161 and 139. At least one transmission tower would be visible from portions of State Routes 161 and 139, both approximately 9 miles from the closest transmission tower. From this distance, the Facility components would blend in with the distant landscape and would be difficult to discern against the surrounding hills. In addition, these views would likely be blocked by vegetation in the foreground and by Buck Butte and other hills south and west of the Facility site. Therefore, the transmission towers would not substantially alter the visual character or views of the landscape.

Miller Creek ACEC. The lower part of Miller Creek ACEC, located approximately 10 miles from the Facility, would have at least a partial line of sight to the stacks and transmission towers. Seen from a distance of 10 miles, the stacks and transmission towers would blend into the overall view and would not substantially alter the visual character or views of the landscape.

Lava Beds National Monument. The stacks would not be visible from the closest edge of the monument. It would also be unlikely that any proposed transmission towers would be visible from high points within the Monument, given that the Captain Jack Substation and the transmission towers connecting transmission lines to the substation were not visible from overlooks at varying elevations within the park during a field visit in June 2002. Even with a high-powered spotting scope, the substation and its transmission towers could not be located (Eisert, 2002). The Facility's location in the far background would mean that a transmission tower that could be within the line of sight from the monument's higher elevations would be barely detectable, if detectable at all. Because the transmission tower would be small in the overall view, these features would have little or no impact on the character or quality of views from the monument.

Lower Klamath Lake NWR and Tulelake NWR Wildlife Overlooks. Seen from a distance of 11 to 15 miles, the transmission towers would blend into the viewshed and would not substantially alter the visual character or views of the landscape. Any views would likely be blocked by vegetation in the foreground and by Buck Butte and other hills south of the Facility and north of Malin.

Bloody Point, Petroglyphs, and Battle of Scorpion Point Vista Points. The line-of-sight analysis indicates that at least one transmission tower could be visible from these vista points. The stacks would not be visible. Seen from these distances (between 9 and 19 miles), the towers would blend into the viewshed and would not substantially alter the visual character or views of the landscape. It is also likely that these views would be blocked by Buck Butte and other hills south of the Facility and north of Malin.

Recommended Mitigation Measures. No measures beyond those included in the proposed project are recommended to mitigate impacts, because impacts to designated scenic areas would not occur. Visual impacts to other areas would not be significant.

Impact 3.8.2. Impacts from Facility lighting would be minimal.

Assessment of Impact. The Energy Facility would use nonglare, low-impact lighting with shielded or cutoff fixtures. This system would minimize the lighting impact on the immediate vicinity while maintaining low to zero intensity above a horizontal axis. Outdoor lighting would be directed downward and at the Facility site and equipment, and would not be directed offsite. Lighting would be kept to the minimum required for operator safety requirements and maintenance work. Security lighting would utilize motion detection equipment rather than constant floodlights. The exhaust stacks and transmission towers would not require lighting or aircraft warning beacons.

At night, outside lighting at the Facility would be visible in the sky in the vicinity of the site. The closest recreational, scenic, or protected area to the site is the OC&E Woods Line State Trail, approximately 8 miles from the Facility. This is a day-use cycling and hiking trail; therefore, trail users would not be impacted by night lighting. Other scenic resources that would have views to the Energy Facility would be BLM's Miller Creek ACEC and the Volcanic Legacy Scenic Byway. The Miller Creek ACEC, a day-use area, would be 10 miles away and would not be impacted. Downcast lighting at the Facility would be so far distant (21 miles away) from the scenic byway that it would be imperceptible. Therefore, no significant impacts would occur.

Recommended Mitigation Measures. No measures beyond those included in the proposed project are recommended.

3.8.3 Cumulative Impacts

The project study area was established by EFSC as a radius of 30 miles around the project site. However, for purposes of cumulative impacts, the visual resource impact area is determined by scenic locations from which the proposed Facility can be viewed. These locations are described in Section 3.8.2. The proposed Facility would not have any adverse effect on aesthetic or scenic resources. Consequently, the project would not contribute to past or current actions resulting in cumulative impacts on this element of the environment. If additional electric transmission lines were constructed in proximity to the proposed Facility's transmission lines, they could have a cumulative negative effect on aesthetic resources by creating a cluttered appearance that detracted from the natural environment.

TABLE 3.8-1
Resources Identified as Scenic or Aesthetic

Resource	Jurisdiction	Applicable Plan Designation	Approximate Distance from Energy Facility (miles)	Approximate Distance from Southernmost Transmission Towers (miles)	Line of Sight to Stacks or Transmission Towers? (N = no, Y = yes)
Lava Beds National Monument	National Park Service	No scenic designation	22	17	N, Y
Sycan National Wild and Scenic River	USFS/Fremont and Winema NF	Wild and Scenic River	21	21	N, N
North Fork Sprague River (Wild and Scenic River)	USFS/Fremont and Winema NF	Wild and Scenic River, Scenic and Recreational Area	27	27	N, N
OC&E Woods Line State Trail	OPRD	Rails to Trails route, no scenic designation	9	8	Y, Y
Bloody Point	Modoc County	Historic Site with vista point	14	9	N, Y
Petroglyphs	Modoc County	Historic Site with vista point	22	16	N, Y
Battle of Scorpion Point	Modoc County	Historic Site with vista point	24	19	N, Y
Volcanic Legacy Scenic Byway (US 97 in Oregon)	ODOT/Klamath County	National Scenic Byway	21	20	Y, Y
US 97	Caltrans	Eligible Scenic Highway	21	20	N, N
SR 161	Caltrans	Eligible Scenic Highway	14	9	N, Y
SR139	Caltrans	Eligible Scenic Highway	14	9	N, Y
Modoc Volcanic Scenic Byway	USFS, Modoc County	National Scenic Byway	15	10	N, Y
Bear Valley National Wildlife Refuge Observation Area	USFWS	Wildlife observation, no scenic designation	28	25	N, N
Lower Klamath National Wildlife Refuge Wildlife Overlook	USFWS	Wildlife observation, no scenic designation	19	15	N, Y
Tulelake National Wildlife Refuge Wildlife Overlook	USFWS	Wildlife observation, no scenic designation	17	11	N, Y
Klamath Wildlife Refuge	ODFW	State Wildlife Refuge, no scenic designation	22	20	N, N
Miller Creek ACEC	BLM, Klamath Falls	BLM Area of Critical Environmental Concern with scenic value	10	10	Y, Y
Bumpheads Special Area	BLM, Klamath Falls	BLM Special Botanical/Habitat Area with scenic value	15	15	N, N

BLM = Bureau of Land Management
 NF = National Forest
 ODFW = Oregon Department of Fish and Wildlife
 ODOT = Oregon Department of Transportation
 OPRD = Oregon Parks and Recreation Department
 OSU = Oregon State University
 USFS = U.S. Forest Service
 USFWS = U.S. Fish and Wildlife Service

Figure 3.8-1
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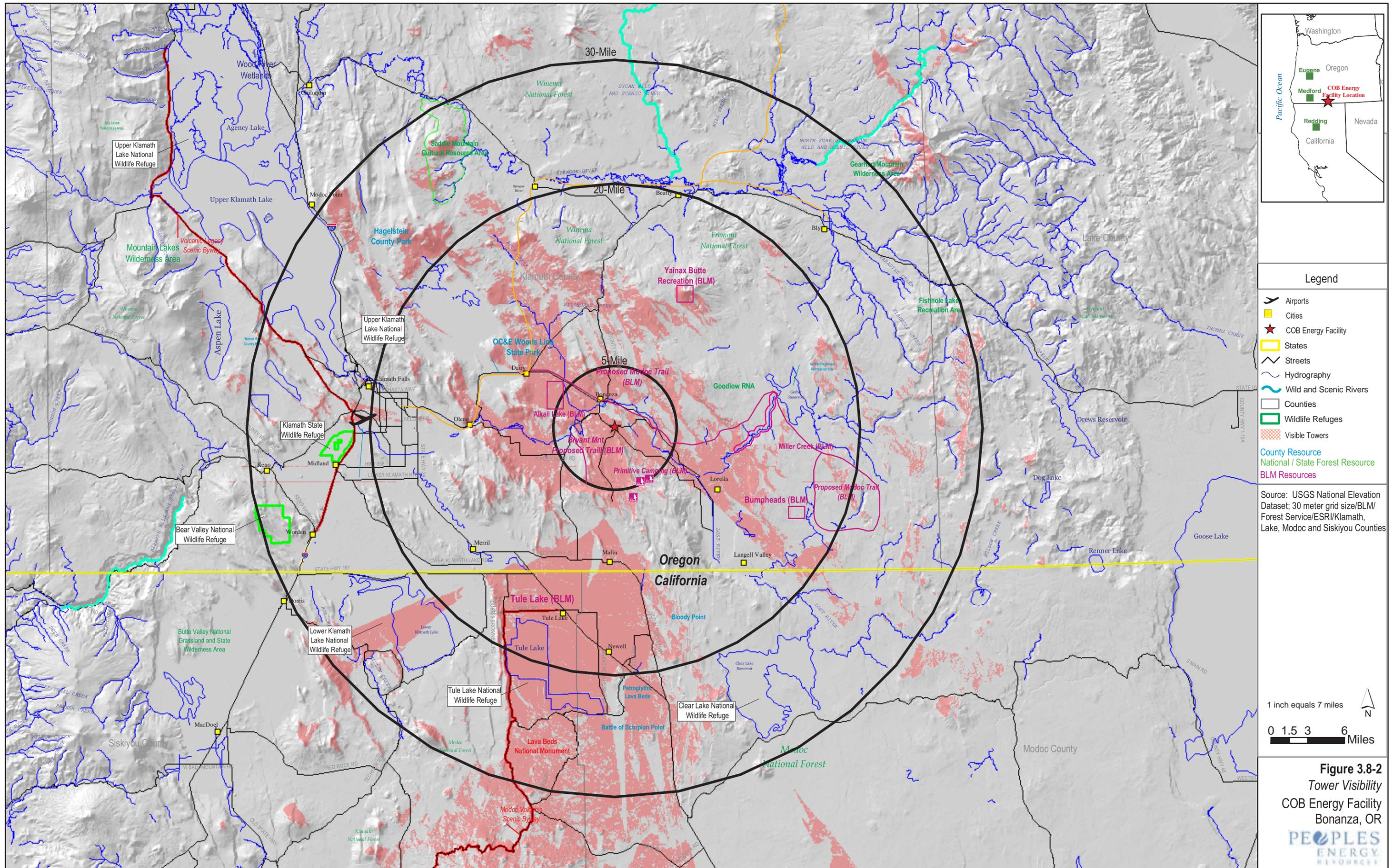


Figure 3.8-2
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