6.13 Transportation and Traffic

6.13 Transportation and Traffic

This section describes the transportation network and traffic conditions in the vicinity of the Upper North Fork Feather River Hydroelectric Project (UNFFR Project) and analyzes the potential impacts of the operation of the UNFFR Project under a new Federal Energy Regulatory Commission (FERC) license on transportation and traffic. The following topics are not discussed in this section for the reasons noted:

- **Air Traffic**: Neither the Proposed UNFFR Project nor either alternative would affect air traffic patterns, local airports, or landing strips.
- **Hazardous Road Features**: Neither the Proposed UNFFR Project nor either alternative would involve road modifications that could create hazardous design features.
- **Alternative Transportation**: Neither the Proposed UNFFR Project nor either alternative would affect alternative forms of transportation.

6.13.1 Environmental Setting

Transportation Network

The main highways in Plumas County are State Routes (SRs) 70, 89, and 36 (Figure 6.13-1). These highways connect to local roads managed by the United States Department of Agriculture, Forest Service (USFS), Plumas County, and private entities that provide essential access for Pacific Gas and Electric Company (PG&E) personnel who maintain UNFFR Project facilities and for commercial, residential, and recreational access for the public. Motorists using the main highways include recreationists, construction and maintenance workers, local commuters, truck drivers, and others traveling through Plumas County to other destinations. Local roads associated with the UNFFR Project facilities are primarily used by PG&E personnel, the USFS and other agency personnel, and recreationists.

SR 70, also known as the Feather River Highway, provides access to the central part of Plumas County from SR 99 and Oroville in Butte County and from U.S. Highway 395 in southeastern Lassen County. SR 70 follows the North Fork Feather River canyon and East Branch of the North Fork Feather River and connects to SR 89 about 15 miles east of the confluence of the East Branch with the Belden reach. SR 89 follows Indian Creek and passes through Crescent Mills and Greenville as it heads north along the western side of Lake Almanor. SR 89 is a well-used transportation corridor between communities in the Lake Almanor basin and Quincy, the Plumas County seat. SR 89 connects to SR 36 northwest of Lake Almanor. SR 36 is a major transportation corridor between Red Bluff and Susanville, with connecting access into Lassen Volcanic National Park and to U.S. Highway 395 toward the Reno area. SR 36 passes through Chester and crosses Lake Almanor via a causeway at the northern end of the lake.

SR 70 is also designated the Feather River Scenic Byway, a 130-mile-long USFS-designated scenic byway that provides scenic views along the Feather River and through the Sierra Nevada (National Scenic Byways Program 2009). The segments of SR 89, 36, and 147 around Lake Almanor are part of the 500-mile-long Volcanic Legacy Scenic Byway, an all-American road. A description of the visual setting of the area is provided in Section 6.9, Aesthetics.

Residential, commercial, and recreation access to the Lake Almanor area is provided by SR 89, 36, and 147, and local roads provide access to the other UNFFR Project facilities. SR 147 is a

12-mile-long road following the eastern side of Lake Almanor from its intersection with SR 36 near Westwood to its intersection with SR 89 east of Canyon dam. The 4.2-mile-long County Road A-13 connects SR 36 to SR 147 west of the SR 147–SR 36 intersection and provides access to the Lake Almanor and Hamilton Branch communities. Caribou Road provides primary access to the Caribou and Oak Flat powerhouses, Butt Valley reservoir, and Belden forebay. Prattville–Butt Reservoir Road provides access from Butt Valley reservoir to SR 89 and Lake Almanor, including the Prattville intake activity area. Five UNFFR Project roads are essential to PG&E operations and maintenance: Butt Valley Dam Road, Butt Valley Powerhouse Spurs, Oak Flat Powerhouse Road, French Creek Road, and Belden Surge Chamber Road. Characteristics of these and other roads in the area are summarized in Table 6.13-1, excerpted from the *Final Environmental Impact* Statement (EIS) *for the Upper North Fork Feather River Project* (Federal Energy Regulatory Commission 2005).

Table 6.13-1. UNFFR Project Roads

Road Name	Surface	Maintenance Responsibility	Length (miles)	Notes
Belden Surge Chamber Road	Native	PG&E	0.7	Spur off Longville-Belden spur
Butt Valley Dam Road	Aggregate	PG&E/USFS	7.1	Non-winter season only road. A 2.2-mile-long portion is one way in the north direction.
Butt Valley Powerhouse Spurs	Aggregate/ asphalt	PG&E	0.4	Two spur roads provide access to Butt Valley powerhouse
Caribou Road	Aggregate	PG&E/USFS	7.8	Provides access to Caribou powerhouses.
French Creek Road	Aggregate	PG&E	0.3	Provides access to local potable water supply system
Oak Flat Powerhouse Road	Aggregate	PG&E	0.2	Spur off Caribou Road
Prattville–Butt Reservoir Road	Aggregate/ asphalt	Plumas County	10.4	Plowed in winter by PG&E

Source: Federal Energy Regulatory Commission 2005.

Recreation access to sites along the North Fork Feather River is provided via pullouts along SR 70 and Caribou Road and designated parking areas. Various USFS, county, and private roads provide access from the highways to recreation sites around Lake Almanor. Recreationists also park along the roads where parking areas are not available or are at capacity, which is common during holiday weekends in summer months.

Trails provide another form of transportation around Lake Almanor and along the North Fork Feather River. The main trails include the: Lake Almanor Recreation Trail along the southwest side of the lake; the North Fork fishing trail upstream of Caribou No. 1 powerhouse; and the Yellow Creek, Indian Springs, and Pacific Crest trails at the Belden rest stop (Federal Energy Regulatory Commission 2005). Additional details on recreational uses of the area are provided in Section 6.8, Recreation.

Traffic Conditions

Traffic counts on the state highways (SR 70, 89, and 36) are recorded annually by Caltrans' Traffic Data Branch. Annual average daily traffic volumes in 2008 for the segments of the highways near the UNFFR Project are provided in Table 6.13-2 (California Department of Transportation 2008). Traffic volumes range from 2,700 to 4,400 vehicles (average annual daily traffic) on SR 70 between the Butte/Plumas County line and SR 89; from 2,750 to 5,850 vehicles on SR 70 between SR 89 and SR 36; and from 5,850 to 11,800 vehicles on SR 36 between SR 89 and Big Springs Road. The level of service (LOS) of these highways, according to 2004 traffic volumes (2008 LOS was not available from Caltrans), ranged from LOS B to D on SR 36 between SR 89 and County Road A-13 and from LOS C to D on SR 89 from SR 36 to just east of Canyon dam (Lassen County et al. 2008). The desired LOS for these state highways is at least LOS D (California Department of Transportation 1994).

Definitions for LOS B, C, and D are:

- **LOS B:** Traffic flow is stable, and speeds are at or near the posted speed limit on level terrain. Passing has minimal constraints.
- **LOS C:** Traffic flow is susceptible to congestion, and speeds are within 10 miles per hour of the speed limit. Passing becomes more constrained.
- **LOS D:** Traffic flow is variable, and passing becomes difficult. Average speed is within 15 miles per hour of the speed limit.

Table 6.13-2. Annual Average Daily Traffic (AADT) on State Highways

State Highway	Segment Start	AADT
70	Butte/Plumas County Line	2,700
70	Junction with SR 89 North	4,400
89	Junction with SR 70	4,700
89	Arlington Road	4,750
89	Stampfli Lane (Eagle Mine)	5,450
89	Greenville (Main Street)	5,850
89	Junction with SR 147	2,750
89	Almanor	3,150
89	Junction with SR 36; Chester West	4,350
36	Junction with SR 89	5,850
36	Farrar Drive (in Chester)	7,200
36	Feather River Bridge (in Chester)	11,800
36	Chester, Melissa Avenue	10,100
36	Big Springs Road	7,300

Source: California Department of Transportation 2008.

The UNFFR Project roads have been rated by PG&E using the USFS classification system. Under this system, the majority of the roads operate at a traffic service level C (Federal Energy Regulatory Commission 2005), which means they have interrupted traffic flow, limited passing facilities, and low-design speeds; are unstable in certain traffic or weather conditions; and may not be able to accommodate some vehicles. Portions of Caribou Road and Prattville–Butt

Reservoir Road operate at a traffic service level B, which means they are congested during periods of heavy traffic, have slower speeds, and high dust, but are capable of accommodating all legal vehicles. Belden Surge Chamber Road operates at a traffic service level D, which means it has slow or blocked traffic flow, a rough and irregular surface, and is difficult for two-way traffic, but is capable of accommodating high-clearance vehicles.

6.13.2 Environmental Impacts and Mitigation Measures

Methodology

The analysis of transportation and traffic impacts is based on characteristics of the transportation network and traffic conditions for local highways and roads and a qualitative discussion of increased traffic and traffic-related hazards associated with the Proposed UNFFR Project and either alternative. Information for the environmental setting was collected from the Caltrans website (http://www.dot.ca.gov/), Plumas County Department of Transportation traffic report, and information from PG&E's relicensing application. The impact analysis addresses the effects of construction- and operation-related traffic on the local transportation network.

Thresholds of Significance

Impacts on transportation or traffic would be significant if the Proposed UNFFR Project, Alternative 1, or Alternative 2 would:

- cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections);
- create safety hazards for other motorists; or
- result in inadequate emergency access or parking capacity.

Impacts and Mitigation Measures

This section discusses the anticipated impacts of the Proposed UNFFR Project, Alternative 1, and Alternative 2 on traffic and the transportation network and identifies mitigation measures for significant impacts. Table 6.13-3 compares the final level of significance for each impact, with incorporation of mitigation measures if appropriate.

Table 6.13-3. Summary of Transportation and Traffic (TT) Impacts

IMPACT	PROPOSED UNFFR PROJECT	ALTERNATIVE 1	ALTERNATIVE 2
Impact TT-1: Construction activities associated with the UNFFR Project would generate a short-term increase in traffic and could affect traffic flow on local highways and roads.	Less than significant	Less than significant	Less than significant
Impact TT-2: Construction activities associated with the UNFFR Project could increase traffic hazards and impede emergency access.	Less than significant with mitigation	Less than significant with mitigation	Less than significant with mitigation

Impact TT-1: Construction activities associated with the UNFFR Project would generate a short-term increase in traffic and could affect traffic flow on local highways and roads.

Proposed UNFFR Project and Alternatives 1 and 2

Construction activities associated with the Proposed UNFFR Project and either alternative may involve the use of construction equipment, haul trucks to transport the materials, and construction worker vehicles. Heavy equipment would be transported to the activity areas at the beginning of construction and would be removed when it is no longer needed. Haul trucks would be used on a more frequent basis as materials and supplies are needed. Worker traffic would occur on a daily basis (typically Monday through Friday only) for the duration of construction.

Construction traffic would primarily use SR 70 and SR 89 to access the Lake Almanor area under Alternatives 1 and 2. At the Prattville intake, construction traffic would follow local roads to the area under Alternatives 1 and 2. At the Canyon dam intake activity area, construction traffic would use SR 89 and adjacent areas along the dam for access. Construction traffic would contribute to the daily traffic on SR 70 and 89 for the duration of construction (estimated to last two construction seasons), but the increase in traffic would not be substantial and would typically be limited to Mondays through Fridays, when recreational traffic is lower. The increased construction traffic is not expected to contribute to a decreased LOS along the highways. SR 89 near Canyon dam and the Prattville intake currently operates at an acceptable LOS D or better, and the number of vehicle trips generated by the construction activities would not be substantial enough to reduce highway conditions to LOS E or worse.

Construction traffic accessing the Caribou intakes activity area would use local UNFFR Project roads, primarily Prattville–Butt Reservoir Road and possibly Caribou Road, in addition to SR 70 and SR 89. Haul trucks would be expected to use Prattville–Butt Reservoir Road because of the steep grade on Caribou Road. Winter conditions in the area may prevent access on some roads, but Prattville–Butt Reservoir road is maintained in good condition and would be capable of handling construction traffic throughout the year.

Construction activities would not substantially increase traffic volumes along SR 70 or SR 89. Caribou and Prattville–Butt Reservoir roads currently operate at acceptable conditions, and the increase in traffic from construction activities would not degrade their operating conditions. Impacts on traffic conditions would be **less than significant**.

Impact TT-2: Construction activities associated with the UNFFR Project could increase traffic hazards and impede emergency access.

Proposed UNFFR Project and Alternatives 1 and 2

Construction equipment and trucks accessing the UNFFR Project area would create safety hazards for other motorists along SR 89 as the slow-moving vehicles travel along and exit the highway, increasing the potential for accidents. Temporary delays would occur during periods of higher truck traffic at the beginning of construction and when equipment and materials are transported to and from the area. These delays could impede emergency access vehicles from quickly reaching their destinations and increase driving times for recreationists and others passing through the area. No road or lane closures are expected to be necessary, and traffic

conditions would return to normal following construction. Traffic control measures would be implemented during construction to alert drivers to the activity areas and expected delays.

Under Alternatives 1 and 2, construction traffic on Prattville–Butt Reservoir Road and to a lesser extent on Caribou Road could create hazards for recreationists using pullouts or parking areas along the roads in addition to delaying emergency access vehicles. Access to the Butt Valley reservoir is limited to windy, steep, and narrow roads, which increase the potential for accidents and decrease accessibility for emergency vehicles. Existing traffic includes maintenance vehicles and recreation users with little residential or through traffic. Large construction trucks would create hazards for other motorists and could limit accessibility to some areas because of the narrow roads. Because of the existing road conditions, the use of these local roads by construction traffic would create a substantial safety hazard.

Because of the increased potential for safety hazards associated with construction traffic, impacts associated with potential traffic hazards and emergency access would be **significant without mitigation**.

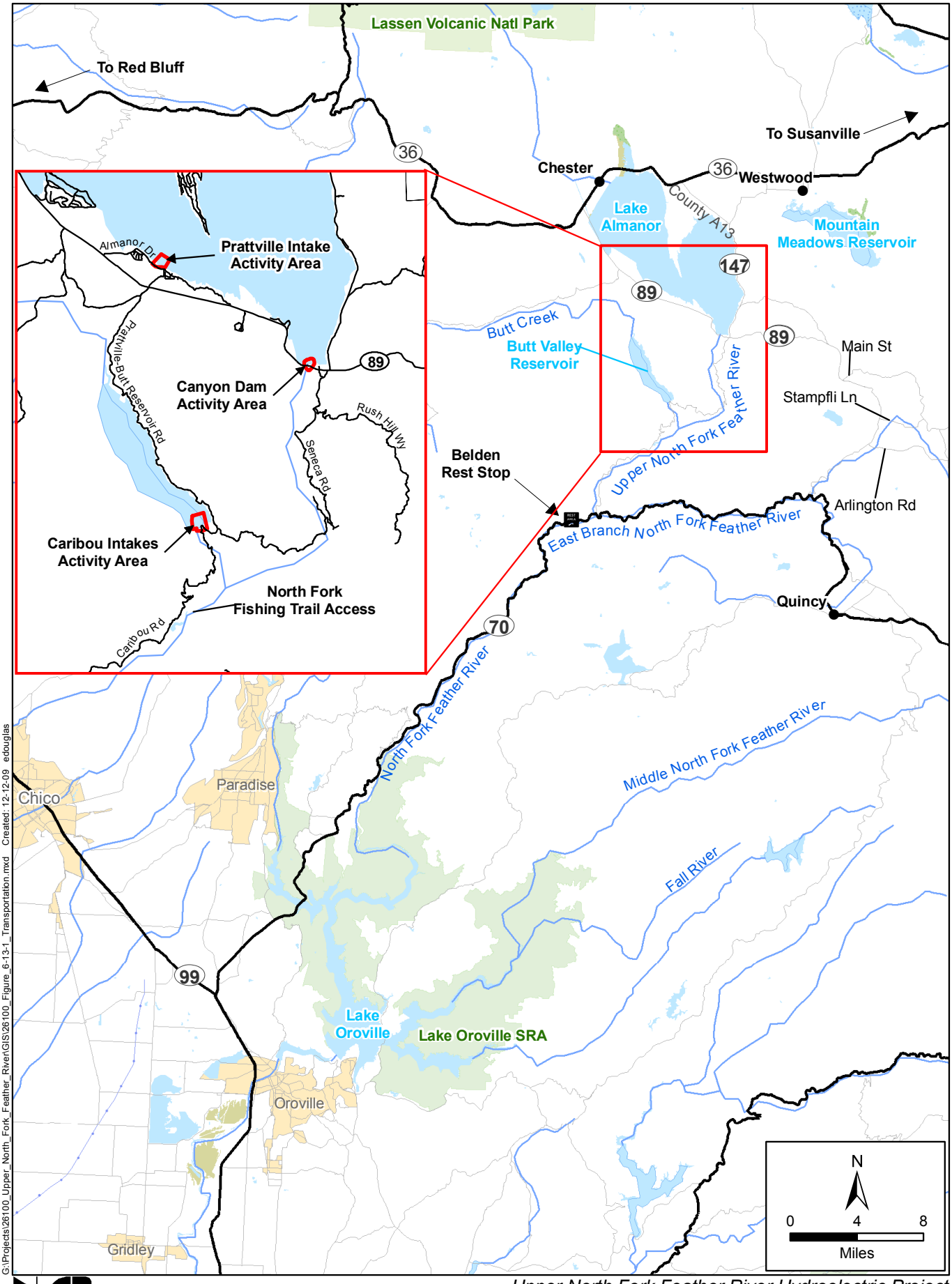
Mitigation Measure

Mitigation Measure TT-2: Implement Traffic Control Plan

PG&E will implement a traffic control plan during construction activities to alert motorists to the activity areas and truck traffic. The plan will include details concerning construction routes, emergency access, reductions in speed limits through the construction zone, signage and appropriate traffic control devices, illumination during limited visibility, and use of safety clothing/vests to ensure visibility of construction workers by motorists. Additional elements of the plan include provisions that signs will be posted along the highways near the activity areas to notify motorists about trucks exiting the highway, the locations of activity areas, and the duration of construction and that all traffic control measures will be removed at the end of construction.

Significance after Mitigation

This mitigation measure falls outside the purview of the State Water Board. However, PG&E has agreed to implement Mitigation Measure TT-2, as proposed in an email dated March 3, 2014 (Appendix H). Implementation of Mitigation Measure TT-2 would reduce the potential impacts on safety hazards to a **less than significant level**.



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North State Resources, Inc.

Upper North Fork Feather River Hydroelectric Project

Figure 6.13-1
Transportation Network