

Report E1

GENERAL DESCRIPTION OF THE LOCALE

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Report E1

GENERAL DESCRIPTION OF THE LOCALE

18 CFR § 4.51(f) Exhibit E is an Environmental Report. Information provided in the report must be organized and referenced according to the itemized subparagraphs below. See § 4.38 for consultation requirements. The Environmental Report must contain the following information, commensurate with the scope of the proposed project:

(1) General description of the locale. The applicant must provide a general description of the environment of the project and its immediate vicinity. The description must include general information concerning climate, topography, wetlands, vegetative cover, land development, population size and density, the presence of any floodplain and the occurrence of flood events in the vicinity of the project, and any other factors important to an understanding of the setting.

E1.1 GENERAL DESCRIPTION OF THE LOCALE

The Licensee's Upper North Fork Feather River Project (Project) is located on the North Fork Feather River (NFFR) and Butt Creek, a tributary to the NFFR. The project reaches from the upper end of Lake Almanor at elevation 4,500 ft (PG&E datum), approximately 3 miles north of the community of Chester down to elevation 2,205 ft. (PG&E datum) where Yellow Creek enters the NFFR. The Project also makes use of Butt Creek from approximate elevation 4,330 ft. to elevation 4,070 ft. Figures E1-1 and E1-2 show major project features and how Project No. 2105 is hydraulically situated with respect to other hydroelectric projects on the NFFR.

E1.2 CLIMATE

The upper end of the project is located on the western side of the crest of the Sierra Nevada Mountains at elevation 4,500 ft. Precipitation occurs primarily during the winter months and significant snow accumulation can occur at this elevation. Mount Lassen

(elevation 10,457 ft. USGS datum) is at the northwestern end of the Lake Almanor basin. Normal annual precipitation at Lake Almanor is approximately 38 inches. Summer months are typically dry and mild. Butt Valley on Butt Creek is located at elevation 4,140 ft. Seasonal temperatures and precipitation are similar to those at Lake Almanor. Caribou is located at elevation 2,980 ft. in the NFFR canyon. As a result, seasonal temperatures are higher than at Butt Valley and Lake Almanor. Annual average precipitation is 41 inches and snow accumulation is typically rare. Belden Powerhouse is located at elevation 2,215 ft. and conditions are similar to those at Caribou.

E1.3 TOPOGRAPHY

Project features range in elevation from 4,500 ft. to 2,215 ft. Lake Almanor is in a very broad basin with surrounding peaks of generally 6,000 to 7,000 ft. Butt Valley Reservoir is in a small basin with surrounding ridges around 5,500 ft. in elevation. Below Lake Almanor Dam the North Fork Feather River enters a canyon with steep sides dropping from elevation 4,400 ft. at the base of the dam to elevation 2,985 ft. at Caribou, a distance of about 11 river miles. This canyon is generally inaccessible except at Seneca approximately midway between Lake Almanor Dam and Caribou. Butt Creek below Butt Valley Dam is also in a steep canyon until it joins the NFFR below the Dam.

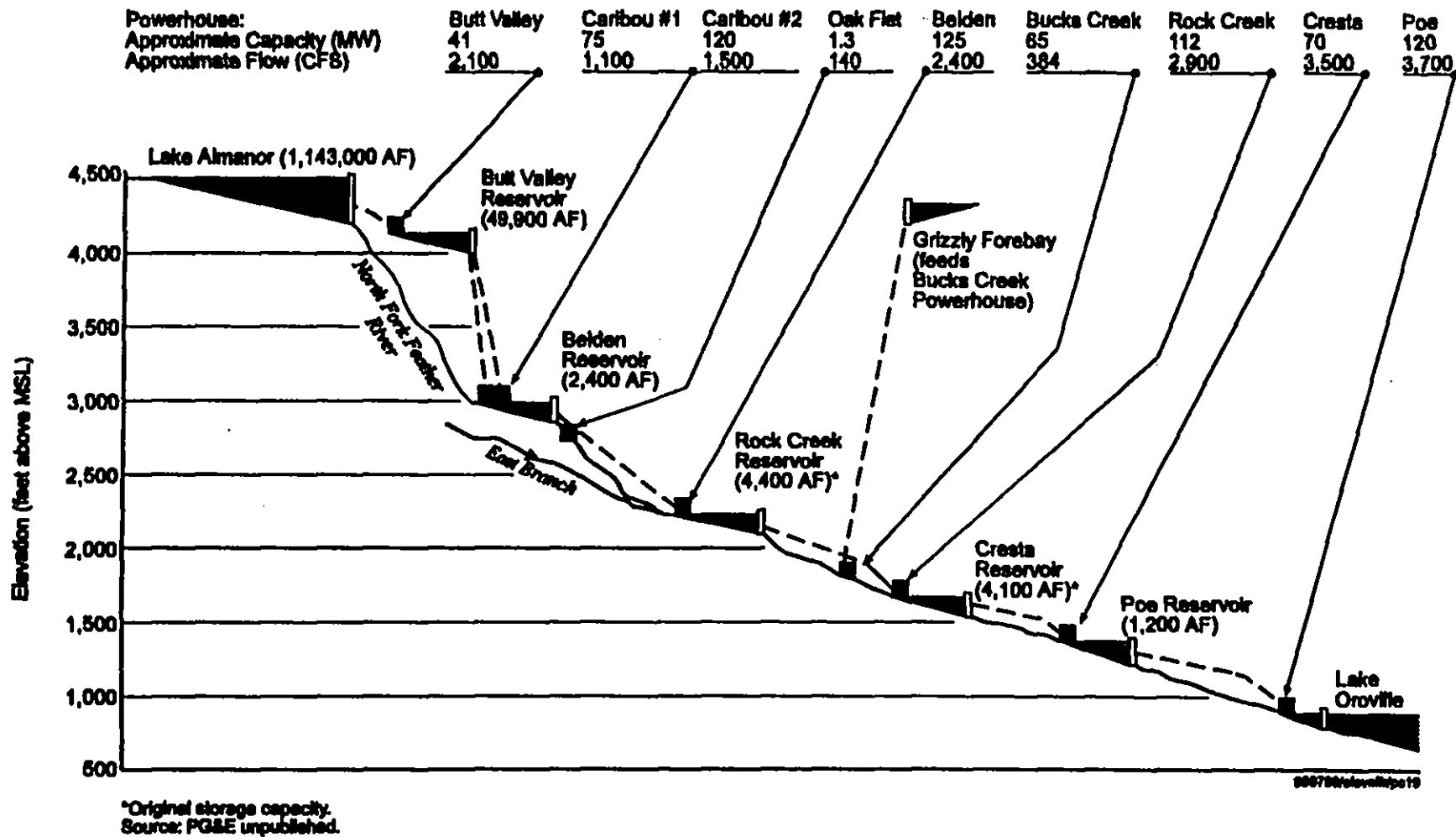


FIGURE E1-2
Hydroelectric Development in the North Fork Feather River Drainage

The NFFR passes through a narrow notch in rock outcroppings just below Caribou powerhouses. From Belden Forebay Dam to the confluence with the East Branch NFFR, the NFFR drops in elevation from 2,850 ft. (USGS datum) to 2,290 ft. (USGS datum), a distance of about 7.5 river miles. Over the remaining 1.75 miles to the Belden Powerhouse, the NFFR drops to elevation 2,215 ft. (USGS datum). The slopes of the NFFR canyon remain very steep between Caribou and Belden.

E1.4 WETLANDS

Wetlands are classified by their characteristic hydrology, soils and vegetation and may be placed into one of five systems as marine, estuarine, riverine, lacustrine or palustrine (Cowardine et al. 1979). The Upper North Fork Feather River Project contains many examples of the latter three wetland systems. Open water wetlands of the riverine and lacustrine (lakes and reservoirs) types occur in association with the North Fork Feather River, its tributary streams and each of the project reservoirs. Palustrine scrub-shrub wetlands are found along the banks of the river and its tributaries and are usually dominated by deciduous shrubs like willow (*Salix spp.*) and alder (*Alnus rhombifolia*). Where seasonal flows are high this vegetation is often sparse and characteristic of the Mid-elevation Riparian Deciduous habitat (Verner and Boss 1980). Where storm flows are regulated, as in the Seneca reach of the river between Lake Almanor Dam and Belden, the vegetation community has shifted over time to a more mature alder forest type. Persistent emergent wetlands are also found to a limited extent along the west shore and causeway arm of Lake Alamanor, and are characterized by bull rush (*Juncus spp.*), cattails (*Typha spp.*), and sedges (*Carex sp.*).

E1.5 VEGETATIVE COVER

Vegetative cover in the vicinity of Lake Almanor and Butt Valley is generally mixed conifer forest except in populated areas where development has occurred. The upper reaches of Lake Almanor contain large grassy meadows subject to flooding at high water level. The project area between Butt Valley and Caribou is also generally mixed conifer forest. Between Caribou and Belden the vegetation varies between mixed conifer forest and chaparral.

E1.6 LAND DEVELOPMENT

Most of the Project is located in remote portions of Plumas County. However, considerable development has taken place at Lake Almanor. Developed areas at Lake Almanor include the community of Chester at the northern end of the lake, the Lake Almanor Country Club and other developments on the peninsula, development on the east shore along Highway 147, and the developments of Almanor West and Prattville on the western shore of the lake. Land development at Lake Almanor is expected to continue due to the availability of undeveloped private land in the vicinity of the lake. Land development at other portions of the project is very limited with the primary human activities being dispersed recreation, logging and mining. An airport operated by Plumas County is located near Lake Almanor west of Chester.

E1.7 POPULATION SIZE AND DENSITY

The estimated 1995 population of the Almanor basin was 4,515 people. As many homes are seasonal or vacation homes, the population can vary considerable on a seasonal basis. Other than a small amount of employee housing at Caribou, the rest of the project area is unpopulated. A small community does exist at Seneca on the NFFR between Lake Almanor and Caribou.

E1.8 FLOODPLAINS

With the exception of Lake Almanor and Butt Valley Reservoir, Project features are located in the steep canyons of the NFFR. Although the river can receive substantial flow, the canyon provides few opportunities for the formation of floodplains. Lake Almanor and the Butt Valley Reservoir were once gently sloped valleys. These reservoirs now cover much of the former valley area. The outlet capacity of Butt Valley Reservoir is such that flooding above the normal maximum water surface (spillway crest elevation) is rare. The upper reaches of Lake Almanor are subject to annual flooding as the reservoir approaches its normal maximum elevation of 4,494 ft., PG&E datum. Since the spillway elevation of Lake Almanor is elevation 4,500 ft., PG&E datum, it is possible that the lands between these elevations could be subject to flooding. However, this would be a highly unlikely event due to the current attention to water level management.

E1.9 REFERENCES

Verner, J. and A. S. and Boss. 1980. *California Wildlife and their Habitats: Western Sierra Nevada*. General Technical Report, PSW-37 Southwest Forest and Range Experiment Station, USDA Forest Service, Berkeley, California. 439 pp.

PG&E. 2000. *Upper North Fork Feather River Project FERC No. 2105, Application for New License, First Stage Consultation Document*. February 2000.