

CHAPTER 8

Alternatives Development

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This chapter discusses the development of the alternatives presented in Chapter 3, PG&E's Upper North Fork Feather River Project, and Chapter 4, Project Alternatives, and presents a summary of the analysis of the No Project Alternative considered in this environmental impact report (EIR). The analysis of the "Retiring the Project" alternative in Section 2.4.3 of the Federal Energy Regulatory Commission's (FERC's) *Final Environmental Impact Statement (EIS) for the Upper North Fork Feather River Project* is incorporated by reference into this EIR. (Federal Energy Regulatory Commission 2005) FERC's Final EIS concluded that the "Retiring the Project" alternative, which is equivalent to the No Project Alternative as defined under the California Environmental Quality Act (CEQA), was not responsive to the purpose and need presented in the FERC Final EIS and it therefore was not fully developed in FERC's Final EIS.

In response to the CEQA scoping process (see Appendix B), the State Water Resources Control Board (State Water Board) developed and implemented an extensive and comprehensive alternatives formulation process that is documented in Appendices D, E, and E-1 (Level 1 and 2 Report, Level 3 Report, and Level 3 Supplemental Report). One key distinction between FERC's Final EIS and this EIR is that the three alternatives analyzed in Chapter 6, Environmental Setting and Environmental Impacts, of this EIR are compared to the baseline condition (described in Section 6.1 – Introduction) whereas FERC's Final EIS compares the costs and benefits of FERC's staff alternative to the Proposed UNFFR Project. Another distinction is that Alternatives 1 and 2 were developed to address significant impacts on water quality and fisheries to achieve compliance with the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) whereas the alternatives in FERC's Final EIS did not address compliance with the Basin Plan.

8.1 Alternatives Analysis Requirements

CEQA requires that an EIR include consideration and discussion of alternatives to a proposed project. (Cal. Code Regs., tit. 14, § 15126.6.) The purpose of the alternatives analysis in this EIR is to identify ways to meet water quality objectives and protect the designated beneficial uses of the Upper North Fork Feather River while avoiding and mitigating potentially significant adverse impacts that could result from the implementation of the UNFFR Project.

The CEQA Guidelines include the following provisions regarding the discussion of alternatives to a proposed project:

- "An EIR shall describe a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project on the environment, and evaluate the comparative merits of the alternatives." (Cal. Code Regs., tit. 14, § 15126.6, subd. (a) and (c));
- If there is a specific proposed project or a preferred alternative, the EIR must explain why other alternatives considered in developing the proposed project were rejected in favor of the proposal. "The EIR should also identify any alternatives that were

considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination.” (Cal. Code Regs., tit. 14, § 15126.6, subd. (c));

- “The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.... If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.” (Cal. Code Regs., tit. 14, § 15126.6, subd. (d));
- “The specific alternative of ‘no project’ shall be evaluated along with its impact. The purpose of describing and analyzing a ‘no project’ alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.” The CEQA Guidelines also provide that the “no project” analysis “shall discuss the existing conditions at the time the notice of preparation is published...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans....” (Cal Code Regs., tit. 14, § 15126.6, subd. (e)); and
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the Lead Agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.” (Cal. Code Regs., tit. 14, § 15126.6, subd. (f).)

8.2 The No Project Alternative

Under CEQA, an EIR must include an evaluation of a no project alternative. (Cal. Code Regs, tit. 14, § 15126.6, subd. (e).) Under the No Project Alternative in this EIR, the State Water Board would deny PG&E’s application for water quality certification for the UNFFR Project pursuant to Section 401 of the Clean Water Act (CWA). (33 U.S.C. § 1341.) While the effects of denial are not certain, it can be reasonably assumed that the facilities associated with the UNFFR Project would eventually be removed or converted to another use(s), as discussed in Section 2.4 of FERC’s Final EIS. Based on this assumption, the UNFFR Project would continue to operate under current conditions as described in Chapter 3, PG&E’s Upper North Fork Feather River Project, over the short-term, pending a future FERC decision that would require compliance with the National Environmental Policy Act and CEQA. It is important to point out that the No Project Alternative is not synonymous with the environmental baseline as defined in Section 6.1, Introduction of the Environmental Setting and Environmental Impacts chapter.

Section 2.4 of FERC’s Final EIS identified three alternatives that were eliminated from detailed study, including a scenario for potential retirement of the UNFFR Project (Federal Energy Regulatory Commission 2005). This scenario involved retiring the UNFFR Project with or without removing the dams and related facilities, including three UNFFR Project features eligible for consideration under the National Register of Historic Properties (NHRP): Canyon dam;

Canyon dam intake¹ tower; and Caribou No. 1 powerhouse. Either retirement option would involve denial of the relicensing application and surrender or termination of PG&E's existing license with appropriate conditions. At a minimum, UNFFR Project retirement would have the following effects: (1) the energy currently generated by the UNFFR Project (about 1,172 gigawatt-hours annually [GWh/YR]) would be lost; (2) generation at PG&E's downstream Rock Creek–Cresta Hydroelectric Project and Poe Hydroelectric Project would be substantially reduced; and (3) substantial effort would be necessary to retire the powerhouses and appurtenant facilities.

Retirement of the UNFFR Project while retaining Canyon, Butt Valley, and Belden dams would require a reconfiguration of two features eligible for listing on the NRHP—Canyon dam and the intake tower—to address the management of storage and the release of water to avoid flooding. With the three dams in place, all UNFFR Project reservoirs could remain at full pool on a year-round basis, thereby influencing releases to the North Fork Feather River and lower Butt Creek.

If the UNFFR Project were decommissioned, PG&E would no longer require the UNFFR Project lands for UNFFR Project operations; thus, ownership of lands currently owned by PG&E could change. Depending on the subsequent landowner or land management agency, public access to some parts of the UNFFR Project area and recreational opportunities could change and/or be eliminated.

In addition to the retirement of the UNFFR Project, the protection, mitigation, and enhancement (PM&E) measures described in the 2004 Settlement Agreement would not be implemented. Many of the PM&E's are designed to mitigate the effects of the UNFFR Project and may not be necessary if the UNFFR Project were decommissioned. These PM&Es include modified minimum streamflow releases from Canyon dam and Belden dam, establishment of ramping rates and requirements for pulse flows and recreation river flows, biological and water quality monitoring, recreation improvements, and preparation of several plans to provide direction for future activities.

No Project Impact Discussion

Future conditions without a FERC license would depend on the allowed uses and land ownership of the facilities and surrounding lands and could encompass a wide range of actions. This section presents a brief discussion of the anticipated effects were the UNFFR Project to be retired and the associated facilities removed or retained. Aside from this discussion, these effects are not further discussed in this EIR.

Retirement of the UNFFR Project that involves removal of UNFFR Project facilities (i.e., Canyon dam, Butt Valley dam, intake facilities, etc.) would substantially modify the North Fork Feather River watershed. Changes to the watershed during the first 5 to 10 years would include conversion of Lake Almanor and Butt Valley reservoir to a riverine environment. This conversion could cause substantial changes to the sediment and flow regimes in the North Fork Feather River downstream of Canyon dam, resulting in increased transport, delivery, and deposition of sediment in the reaches downstream. Modification of the flow regime, including the inability to regulate flow via the UNFFR Project, would substantially affect other FERC-licensed projects on the North Fork Feather River downstream. In addition to these changes, the sediment and flow regime of Butt Creek would be modified by eliminating facilities associated with Butt Valley reservoir.

¹ Canyon dam "intake" and Canyon dam "outlet" are synonymous.

Removal of Canyon, Butt Valley, and Belden dams and the related UNFFR hydropower facilities would result in the loss of the open-water habitat associated with Lake Almanor, Butt Valley reservoir, and Belden forebay. The habitat could convert to riparian and wetland or meadow habitats, similar to pre-dam conditions. The loss of open-water habitat could affect water birds, raptors, and other wildlife that rely on this type of habitat for foraging, resting, and other activities. Demolition activities could disturb special-status wildlife in the vicinity of the dams and other facilities while the facilities are being removed. The conversion of the reservoirs from lacustrine to riverine habitat could affect native aquatic organisms (e.g., fish, amphibians, macroinvertebrates) that prefer lake habitat and indirectly affect wildlife, such as bald eagles, that forage on the fish. Removal of the dams would not benefit anadromous fish in the North Fork Feather River because hydroelectric facilities (e.g., Oroville Dam) downstream would still impede their passage. Habitat that supports the warmwater recreational fisheries at Lake Almanor and Butt Valley reservoir would be substantially reduced, and flat-water recreational opportunities (e.g., boating) would be eliminated or substantially modified.

The loss of opportunities for flat-water recreation on Lake Almanor and Butt Valley reservoir could affect nearby communities as well as the larger Plumas County due to a reduction in visitation to the area. Public and private recreational features (e.g., campgrounds, beaches, boat docks) along the shoreline of Lake Almanor and Butt Valley reservoir would no longer be functional. Recreational facilities associated with the Seneca and Belden reaches would not be affected other than by changes in the sediment and flow regimes. Overall, recreational opportunities associated with the UNFFR Project would change to riverine activities, such as shore fishing and whitewater boating.

Retirement of the UNFFR Project without removal of UNFFR Project facilities would require the conversion of the existing features or facilities to non-hydropower uses, such as recreation or water supply, and a corresponding change to PG&E's water rights and its ability to regulate flows. Without the regulation of flows, the flood potential would increase, and dam modifications could be necessary to address public safety concerns. PG&E owns a majority of the lands encompassing the UNFFR Project, and these lands would likely be sold to other entities, resulting in land use modifications and possible use restrictions. If the dams were not removed, recreational opportunities would be similar to current conditions, and the open water habitat at the reservoirs would continue to support the warmwater fishery and wildlife; however, it is uncertain whether the existing trout fishery would be self-sustaining.