

4.17 Other Required Analyses

This section discusses other required impact analyses required by NEPA and CEQA. It includes discussions regarding the areas of potential controversy, the potential for growth-inducing impacts, irreversible and/or irretrievable commitments of resources, the relationship between short-term uses and long-term productivity of the environment, and energy conservation.

Areas of Potential Controversy

The primary areas for potential controversy in implementing the Restoration Project include the compatibility of the Proposed Action and the other alternatives with ongoing and planned operations at the Coleman National Fish Hatchery, especially with respect to fish restoration upstream of the hatchery, the focus of the adaptive management process being used for Battle Creek fish restoration, the level of community involvement, long-term impacts on land use as they relate to potential restrictions associated with ESA and CESA compliance, and potential effects on trout farming. These related projects are described in detail in Chapter 6. Areas of potential controversy associated with these projects are discussed and summarized below.

Compatibility of the Restoration Project with Ongoing and Planned Operations at the Coleman National Fish Hatchery

The BCWC includes representation from all landowners, except PG&E and the federal government (USFWS, BLM, USFS), that could be affected by the Restoration Project. In the past few years, the BCWC has expressed several concerns regarding Restoration Project implementation and its compatibility with ongoing and planned operations at the Coleman National Fish Hatchery.

In their September 20, 2001, letter to Mr. Leland Davis, president of the BCWC, Reclamation, the USFWS, DFG, and NOAA Fisheries proposed a problem-solving approach to address the concerns the local community has voiced through BCWC over some of the activities of agencies (i.e., Reclamation, USFWS, DFG, and NOAA Fisheries) in the Battle Creek watershed (Four-Agency Letter (Appendix B)). These concerns relate to the Restoration Project and the operations of the Coleman National Fish Hatchery. The BCWC has expressed a vote of opposition to the Restoration Project conditioned on defining a way forward on several issues relating to the future operation of the Coleman National Fish Hatchery (Appendix C).

As stated in the Four-Agency Letter, the BCWC's concerns are important to the agencies, which have been exploring ways to resolve these issues through a

process that will provide meaningful input by all parties including the BCWC and CALFED. The collective goal, as defined in the Four-Agency Letter, is to restore the salmon and steelhead habitats of the Battle Creek watershed upstream to its waterfall barriers to maximize naturally reproducing runs, with a priority on the listed species (winter-run chinook salmon, spring-run chinook salmon, and steelhead). The Four-Agency Letter is discussed in greater detail in Chapter 6, “Related Projects.”

Concerns about Focus of the Adaptive Management Process Used for Battle Creek Fish Restoration

The BCWC had expressed concern that the focus of the draft Adaptive Management Plan (Appendix D) for the Restoration Project is narrow and needs to operate at the watershed level using a community-based approach. The Four-Agency Letter stated that the agencies have committed to an Adaptive Management Plan that would have an open decision-making process with many criteria, including one requiring that community acceptance be considered when making modifications in the Hydroelectric Project area. The agencies recognize that the draft Adaptive Management Plan for the Restoration Project has a narrow focus on the Hydroelectric Project. However, this is seen as a necessary constraint resulting from the dedicated budget for adaptive management of structures and properties licensed by FERC.

The agencies have committed to work with the BCWC to develop a broader framework that can coordinate community-based restoration actions in the watershed with the Restoration Project and actions at the Coleman National Fish Hatchery, especially if, or when, management actions are subjected to adaptive management. The Four-Agency Letter also states that the agencies’ environmental document for the Restoration Project (i.e., this EIS/EIR) will include the belief that the different projects now occurring in the watershed have to be closely coordinated to ensure the full success of the Restoration Project. The Four-Agency Letter states that it would appear that the Battle Creek Working Group and the BCWC are both good candidates for assuming a long-term role in coordinating the various activities in the watershed. The four agencies support stakeholder leadership and involvement in this broader forum, with the understanding that the federal and state agencies cannot abrogate their statutory decision-making authorities and responsibilities.

Inadequate Level of Community Involvement and Opportunities for Community-Based Implementation

The agencies are currently seeking to hire a coordinator to assist them and the BCWC in the cooperative development of a broader science- and community-based framework for completing projects throughout the watershed, not just the Restoration Project area. The agencies believe that they share the BCWC’s goals for restoring Battle Creek, as expressed in their respective strategy documents

(the BCWC's "Battle Creek Watershed Community Strategy" [June 2000] [Appendix B] and the agencies' efforts beginning with the Upper Sacramento River Fisheries and Riparian Habitat Management Plan [1989], the Final Restoration Plan for the AFRP [January 9, 2001], the USFWS's April 3, 1998 position paper on Battle Creek watershed [USFWS 1998a], and the CALFED Programmatic Record of Decision [August 2000] [CALFED 2000c]).

The agencies continue to support the BCWC's leadership role on land and water management issues in the watershed outside of the Hydroelectric Project license amendment process. The BCWC received a grant through the CALFED/CVPIA grant process and currently has the lead in addressing watershed issues through the CALFED/CVPIA grant.

In the Four-Agency Letter, the agencies invited the BCWC to pursue its interests in examining Battle Creek fish management issues within the regional context of the upper Sacramento River basin. The agencies suggested using the CALFED Programmatic Record of Decision, in association with the CALFED Science Program, for this regional approach. The goals of these programs are to provide financial and technical assistance for watershed activities that help achieve fish restoration goals and to promote collaboration and integration among existing and future local watershed programs.¹

Long-Term Impacts on Local Land Use as a Result of Potential Restrictions Associated with Endangered Species Act Compliance

The agencies expressed in the Four-Agency Letter that they would like to work with the local landowners to evaluate the risk they believe would exist if the Restoration Project should fail to meet its long-term objective of maintaining viable populations of anadromous fish in Battle Creek. The agencies understand that the local landowners believe that in the event of such a failure, the landowners may somehow be made to assume the burden to restore the fish through restrictions on land uses, water rights, or other economic activities.

As stated in the Four-Agency Letter, the objective of the Restoration Project is based on using the bed and banks of Battle Creek in their existing condition and providing needed water and passage through modifications to the Hydroelectric Project. The agencies believe that the current land use practices and activities in the Battle Creek watershed have maintained the bed and bank of the creek in good condition, especially considering the low-flow conditions in the creek resulting from the Hydroelectric Project. In terms of water use for the

¹ In the Four-Agency Letter, the agencies express strong feelings that the Restoration Project proceed on schedule. They agencies believe that the Restoration Project can be implemented using the established environmental decision-making processes based upon providing full disclosure and addressing the concerns of the stakeholders and the public. They intend to address in this EIS/EIR the main issues of concern that the BCWC has expressed because they are related to the Restoration Project.

Hydroelectric Project, the agencies have determined that over the past decades, PG&E and its predecessors have collected all the water rights needed for reallocation to the Restoration Project, thus providing the basis for the MOU.

As stated in the Four-Agency Letter, the agencies support measures to assist landowners to continue their current land uses, such as conservation easements consistent with the Battle Creek Watershed Community Strategy. Because they cannot predict the future, the agencies state that all involved parties must recognize that there may be major changes in land use practices that are incompatible with laws on keeping the water clean or the bed and bank of the stream in adequate condition. As further stated in the Four-Agency Letter, the public trusts the appropriate agencies to monitor the fish and wildlife resources, properly review proposals for new projects under environmental decision-making processes, recommend mitigation, and conserve salmon, steelhead, and their habitats. The agencies must follow these conservation mandates while working cooperatively with all parties, including the local landowners, to conserve these resources.

Adverse Effects on Trout Farming and Related Local Economics as a Result of Fish Restoration

Currently, MLTF divert flow from two springs as the primary source of flowing water to three of their fish culture operations: Willow Springs, Jeffcoat East, and Jeffcoat West. Historically, the spring flow has supported the production of relatively disease-free (i.e., IHN-free) rainbow trout. The flow diverted from the springs, however, includes seepage from Eagle Canyon, Inskip, and perhaps other canals. Seepage from Eagle Canyon and Inskip canals potentially contains pathogens that are conveyed by water diverted from North Fork and South Fork Battle Creek. Steelhead and chinook salmon that are present in Battle Creek carry pathogens, including IHN. The pathogens will continue to be present under the No Action Alternative and continue to place the cultured fish at risk of contracting diseases from the spring water supply that receives canal seepage. The Action Alternatives, however, could increase this disease problem by introducing anadromous fish carrying the IHN pathogen to North Fork and South Fork Battle Creek. The impact that the pathogen problem could have on Mount Lassen Trout Farms is discussed further under the Socioeconomics discussion in Section 4.16, "Other NEPA Analyses." Reclamation is committed to work with Mount Lassen Trout Farms to help provide an appropriate solution for this problem.

Growth-Inducing Impacts

Implementation of the Restoration Project would not induce significant development or economic growth in the vicinity. Dam removals, fish screen and fish ladder improvements, and other construction and operation activities associated with the Restoration Project would be implemented in remote,

privately held lands with restricted access. The opportunities for economic growth and development would, therefore, be limited to those independent land use decisions made by the landowners controlling this access. The objective of the Restoration Project is based on using the bed and banks of Battle Creek in their existing condition and providing needed water and passage through modification of the Hydroelectric Project. The agencies believe that the current land use practices and activities in the Battle Creek watershed have maintained the bed and bank of the creek in good condition, especially considering the low flow conditions in the creek resulting from the Hydroelectric Project. Because current access restrictions and land use practices are consistent with this Restoration Project objective, the agencies will cooperate with the BCWC to ensure that development and economic growth do not occur to its detriment.

Irreversible and/or Irretrievable Commitment of Resources

Concrete, Gravel, and Other Rock and Earthen Materials

Construction materials, including concrete, gravel, and other rock and earthen materials, would be irretrievably committed toward the construction of the facilities needed for Restoration Project implementation. Most of these materials would be imported to the site from nearby commercial sources, which have been subject to separate environmental review before they could extract and process such materials for construction use. Soil materials taken from nearby sites and used as fill would be irretrievably committed to Restoration Project construction. Gravels and cobbles used for temporary cofferdam construction, however, would be returned to their sources at the end of construction.

Renewable Hydroelectric Generation Capability

Renewable hydroelectric generation capability would be lost because of permanently altered flow regimes on Battle Creek and removal of diversion dams and canals. This reduction in hydroelectric generation capability could result in increased operation of fossil-fueled electricity resources, with associated air emissions, and a relatively small increase in cost of power to California's electricity consumers. Lost generation and increases in cost of power are described under the power generation and economics discussion in Section 4.16, "Other NEPA Analyses."

Scenic Quality

Under the Five Dam Removal Alternative, the South Powerhouse tailrace connector and bypass channel would substantially reduce scenic quality along this section of South Fork Battle Creek. Views of the wooded, undeveloped hillside from the Oasis Springs Lodge creek bank frontage would be replaced with views of the bypass channel and revetments. This loss in scenic quality would be irreversible since there is no feasible mitigation to reduce the visibility of the channel and revetments.

Relationship between Short-Term Uses and Long-Term Productivity of the Environment

The Restoration Project is intended to begin the development of a long-term solution to fish restoration in Battle Creek. Short-term uses, including ongoing interim flow agreements, PG&E commitments to suspend diversions to Wildcat Canal and to block the downstream entrances to the Eagle Canyon and Coleman Diversion Dam fish ladders, and other improvements being made at the Coleman National Fish Hatchery, are intended to be fully compatible with the long-term fish productivity of Battle Creek. These short-term uses and improvements will be evaluated using adaptive management principles developed and revised consistent with CALFED guidelines to maximize the possible long-term environmental productivity of Battle Creek.

Energy Conservation

The Restoration Project purpose includes minimizing the loss of clean, renewable energy produced by the Hydroelectric Project and accounting for the energy and related generation capacity that California will need to meet its current and future energy demands. Because of this fundamental consideration of energy conservation, the Restoration Project has, from the outset, placed a high priority on energy conservation in balance with restoration.