

RECLAMATION

Managing Water in the West

Record of Decision

Nimbus Hatchery Fish Passage Project

**Folsom, California
Mid-Pacific Region**

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitment to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Record of Decision

Nimbus Hatchery Fish Passage Project

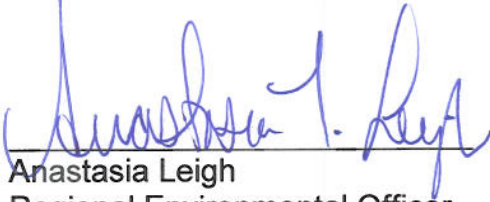
Recommended:



Drew Lessard
Acting Area Manager
Central California Area Office

Date Apr 2 2013

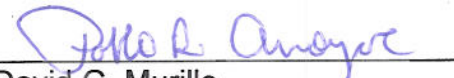
Concur:



Anastasia Leigh
Regional Environmental Officer
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Date 4/2/2013

Approved:



David G. Murillo
Regional Director
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Date 4/5/13

ACTING FOR

Introduction

This document is the Record of Decision (ROD) of the Department of the Interior, Bureau of Reclamation (Reclamation), Mid-Pacific Region, for Nimbus Hatchery Fish Passage Project. The project is the subject of a Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR), dated October 2010, and the Final EIS/EIR, dated August 2011. The EIS/EIR is an analysis of the environmental effects that could result from implementing four alternatives. The EIS/EIR was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, 42 United States Code (USC), Section 4321 et seq.; the Council on Environmental Quality regulations for implementing NEPA, 40 Code of Federal Regulations (CFR), Parts 1500-1508; the California Environmental Quality Act (CEQA) of 1970, California Public Resources Code, Section 21000 et seq., as amended; the Guidelines for Implementation of CEQA, Title 14, California Code of Regulations (CCR), Section 15000 et seq.; and Reclamation and California Department of Fish and Wildlife (formerly California Department of Fish and Game) [CDFW] guidelines. Reclamation is the lead Federal agency and the CDFW is the lead State agency. CDFW certified the Notice of Determination (NOD) on October 31, 2011.

Background

The Nimbus Fish Hatchery (Hatchery) and weir are on the lower American River, approximately a quarter-mile downstream of Nimbus Dam. The Hatchery was built, and is operated as mitigation for the loss of spawning areas for Chinook salmon (*Oncorhynchus tshawytscha*) and California Central Valley (CCV) steelhead (*O. mykiss*) that were blocked by the construction of Folsom Dam and Reservoir Project (as authorized by the American River Basin Development Act, October 14, 1949, 63 Stat. 852). The weir and Hatchery were constructed in 1955. The weir was built to create a barrier in the river that allows adult Chinook salmon to locate the entrance to the fish ladder for collection at the Hatchery. Historically, the weir is needed from mid-September through mid-December during the Chinook salmon spawning season. Its superstructure is manually installed and removed each year, although its foundation and concrete piers remain in place year-round. The weir superstructure directs upstream migration of Chinook salmon into the Hatchery in sufficient numbers to meet Hatchery mitigation production goals. However, steelhead do locate the ladder entrance in sufficient numbers to meet mitigation production goals for their species without the weir superstructure in place.

The Hatchery is in the lower American River corridor, in a major metropolitan area. The American River Parkway and its associated biking and hiking trails lie next to the Hatchery and continue upstream and downstream. Lake Natoma, which is part of the Folsom Lake State Recreation Area, and the California State University Sacramento Aquatic Center facilities lie immediately upstream. The Hatchery and its visitor center provide interpretive opportunities for school children and other visitors.

The lower American River is open to fishing year-round from Nimbus Dam to the Hazel Avenue Bridge, in accordance with Title 14 CCR, Section 7.50(b)(5)(A). The river is open to fishing from January 1 to September 14 from the Hazel Avenue Bridge to the Fair Oaks USGS gaging station cable crossing, which is approximately 900 feet downstream of the weir. It is closed during spawning season from September 15 to December 31, in accordance with Title 14 CCR, 7.50(b)(5)(B). Downstream of the project area, the river is open to fishing from January 1 to October 31, from the USGS gaging station cable to the Sacramento Municipal Utility District power line crossing at the southwest boundary of Ancil Hoffman Park.

The CDFW manages native and other fish, and wildlife, plant species, and natural communities for their intrinsic and ecological value and benefits. This includes habitat protection and maintenance to help ensure the survival of all species and natural communities. The CDFW is also responsible for the diversified use of fish and wildlife, including recreational, commercial, scientific, and educational uses. In consideration of the alternatives proposed by Reclamation to address problems with the weir and in order to fulfill its mission, the CDFW must continue to regulate fishing in a manner that adequately protects Chinook salmon and CCV steelhead in the project vicinity.

Reclamation is obligated to raise four million Chinook salmon smolts and 430,000 steelhead yearlings annually at the Hatchery. This obligation was established as a result of the Fish and Wildlife Coordination Act Report (August 14, 1946, 60 Stat. 1080) (United States Fish and Wildlife Service [USFWS] and CDFW 1953). The report expressed concern with the effects of construction of Nimbus Dam and recommended measures to mitigate the impacts of constructing Nimbus Dam. Reclamation formed a partnership and executed a service contract with the CDFW to operate and manage the Hatchery. The Hatchery, weir, and fish ladder were constructed and became operational in 1955. Since then, much of the Hatchery infrastructure has been modernized, but the weir and ladder system are largely unchanged. The weir structure is aging and presents significant long-term maintenance and operational (O&M) and resource management issues for Reclamation.

Reclamation's efforts to find a lasting solution to problems with the weir began in the early 1990s. In 1996, Reclamation completed a concept study that described alternative designs for correcting the design deficiencies of the weir. Subsequently, attention focused on repairing the damage to the weir foundation from a significant flood in 1997. In January 1997, Reclamation consulted with the National Marine Fisheries Service (NMFS) on potential impacts of the weir repairs and associated flow reductions on federally protected fish. It was recommended by NMFS to develop a long-term solution to minimize flow fluctuations associated with the installation and removal of the Nimbus Fish Hatchery fish diversion weir racks and pickets. Upon completion of the repair project in 1999, Reclamation convened an interagency interdisciplinary workshop to further develop the best ways of resolving the problem. Participants in the Value Engineering Study considered the following potential solutions:

- Replace the weir foundation and use the existing fish screen assembly;
- Replace the weir with a solid foundation and a downward sloping bar rack on the downstream surface;
- Collect fish near the tailrace (power plant water channel) of Nimbus Dam and truck them to the Hatchery; and
- Collect fish near the tailrace of Nimbus Dam and transport them to the Hatchery via a sluice (water channel).

At the time, spawning and rearing habitat upstream of the weir were considered minimal, and the selection of an alternative that would replace the structure, was expected to meet the need to maintain a functional hatchery. Reclamation advanced a design that would replace the diversion weir with a similar in-river structure immediately upstream of the weir. However, toward the end of the design process, Central Valley evolutionary significant unit of West Coast steelhead were formally listed as a threatened species under the ESA. In accordance with its obligations under the ESA, Reclamation initiated informal consultation with the NMFS on the replacement weir design. The NMFS requested that the weir design provide passage upstream of the weir to accommodate the threatened CCV steelhead. Several design modifications were made to accommodate juvenile steelhead passage.

Reclamation revisited concepts for diverting salmon into the Hatchery and requested that the California Department of Water Resources (DWR) Fish Passage Improvement Program provide review and comment on Reclamation's replacement weir design. The DWR suggested extending the fish ladder upstream to the Nimbus Dam stilling basin, use the dam as the diversion weir to direct salmon into the ladder. This suggestion was similar to two recommendations in the concept study, except that it used a fish ladder to transport the fish to the Hatchery, rather than using trucks or a sluiceway. After reviewing this alternative, Reclamation prepared a conceptual design for a fish ladder from the Hatchery to the south side of the Nimbus Dam stilling basin, in the Nimbus Shoals area. This design is represented in the EIS/EIR as Alternative 1 (Figure 1).

Reclamation also continued to advance a design for a replacement weir, which is represented in the EIS/EIR as Alternative 2.

Reclamation addressed alternative solutions to the problems with the weir in a series of planning studies between 1996 and 2003. In December 2003, Reclamation held two discussion forum meetings in Rancho Cordova, California, to document questions from the community, to identify issues and concerns, and to solicit suggestions on the weir replacement.

In 2006, Reclamation convened a Project Alternatives Solutions Study to assist in refining alternatives. The workshops included input from the USFWS, the NMFS, the CDFW, and the California Department of Parks and Recreation.

Reclamation published a Notice of Intent to prepare an EIS/EIR in the *Federal Register* on April 7, 2009. During the scoping period, the lead agencies hosted two public scoping meetings to share information about the project alternatives and to obtain input from the community. On October 1, 2010, Reclamation and the CDFW announced the availability of the Draft EIS/EIR for formal public review. Open house sessions on November 4, 2010 (afternoon – 2-3:30 p.m. and evening – 6:30-8:00 p.m.) were held to obtain further public input on the analysis in the Draft EIS/EIR.

The Final EIS/EIR was published in August 2011 and identified Alternative 1C as the preferred alternative. Reclamation's action under Alternative 1C is the construction of a modified fish passageway and removal of the diversion weir.

CDFW's action under Alternative 1C is limited to implementing the fish closure modification. In October 2011, CDFW prepared the "Findings of Fact and Statement of Overriding Considerations for the Nimbus Hatchery Fish Passage Project" (Findings). Per the Findings, CDFW intends to recommend to the California Fish and Game Commission year-round closure of fishing in the area that extends from Nimbus Dam to the Fair Oaks USGS gaging station cable just downstream of the Hatchery. DFW issued a Notice of Determination on October 31, 2012 that can be obtained at <http://www.ceqanet.ca.gov/NODdescription.asp?DocPK=656776>.

Decision

Reclamation's decision is to implement Alternative 1C, which involves constructing a new fish passageway. This was identified as the preferred alternative in the Final EIS/EIR.

The entrance to the fish passageway will be in the Nimbus Dam stilling basin. The new fish passageway will tie into the existing fishway at the top of the fish ladder section near the Hatchery. The diversion weir will be removed, and Nimbus Dam will serve as the upstream barrier to fish migration. A viewing plaza could be constructed on the north side of the fish passageway near the top of the flume section, where fish enter the Hatchery. Implementation is contingent on the availability of funds. Reclamation will continue to operate similar to the No Action Alternative until funding is available to implement the various stages as described below.

Implementation will take place in three phases. First, the new fish passageway will be constructed. Secondly, the new fish passageway will be operated and evaluated to support the operational integration of the new fish passageway before decommissioning the portions of the existing facilities that are no longer needed. Finally, though weir removal would not be required to achieve the purpose of the proposed project, Reclamation may consider removal of the existing fish weir once the new fish passageway has been demonstrated to perform satisfactorily for two seasons. Implementation of weir removal would require testing and final weir removal design, as well as additional site specific environmental review prior to the start of any ground disturbing activities.

In conjunction with the new fish passageway, Reclamation will also implement new visitor management guidance at Nimbus Shoals: public vehicle access with defined parking. A visitor use management team, including representatives of appropriate agencies, will be designated to implement the new visitor management guidance in coordination with the construction schedule for the preferred alternative. Once guidance is fully implemented, visitors will be able to access Nimbus Shoals, but motorized access will be limited to a defined parking area. Other visitor amenities that may be provided are picnic tables, sanitation facilities (portable toilets, hand wash stations), trash cans, and interpretive signs. Implementation activities associated with visitor management option at Nimbus Shoals will be subject to additional site-specific environmental review, as appropriate.

Construction of a new fish passageway with an entrance at the Nimbus Dam stilling basin, as well as, implementation of visitor management guidance at Nimbus Shoals, fulfilled the federal actions described under Alternative 1C. Under Alternative 1C, Fish and Game Commission would also need to amend the current fishing regulation to close fishing year-round between Nimbus Dam and the USGS gauging station cable crossing. Amendments to fishing regulations and closures are at the discretion of the Fish and Game Commission. Because providing protection through regulatory change is outside of Reclamation's authority, Reclamation's decision is limited to implementing the federal actions described in Alternative 1C—namely construction of a new fish passageway and implementation of visitor management guidance at Nimbus Shoals.

Alternatives Considered

Two approaches to meeting the purpose and need for the project were evaluated in the EIS/EIR: modifying the fish passageway by extending the ladder to Nimbus Dam (Alternative 1) and replacing the weir structure (Alternative 2).

Alternative 1 involves the construction of a fish passageway from the Hatchery to the stilling basin downstream of Nimbus Dam and removing the diversion weir. Nimbus Dam would function as the upstream barrier to fish migration. Two implementation options for Alternative 1—Alternative 1A and Alternative 1C—were evaluated because the CDFW is considering modifying fishing closure regulations. Alternative 1A is consistent with current fishing regulations for the American River and would not require any change in these regulations. Alternative 1C requires a modification of fishing regulations to be approved by the Fish and Game Commission (Commission), which regulates the taking and possession of fish and other animals. The Commission must consider and adopt new regulations or changes to existing regulations at no fewer than three meetings annually (Fish and Game Code, Section 204, et seq.). Reclamation and the CDFW have identified Alternative 1C as the preferred alternative.

Alternative 2 involves replacing the weir with a new weir immediately upstream. This alternative would add additional entrances to the fish ladder but would continue to use most of the ladder. The structure would be permanent, would not require annual

installation or flow reductions, and would include a six-bay bypass that would allow structure maintenance without reducing river flows.

The No Action Alternative would continue using the diversion weir. Annual operations and maintenance and river flow reductions would continue to be required.

The four alternatives under consideration are as follows:

- ***Alternative 1A—Construction of a modified fish passageway and removal of the diversion weir.*** Fishing closures would apply all year within a radius of 250 feet of the modified fish passageway entrance and the existing Hatchery fishway outfall, based on existing fishing regulation Title 14 CCR, 2.35. The river is closed during spawning season, from September 15 to December 31, from the Hazel Avenue Bridge to the USGS gaging station cable crossing, in accordance with Title 14 CCR, 7.50(b)(5)(B). These closures would be consistent with Fish and Game code and would not require any discretionary action by the Fish and Game Commission. (Note: Fishing closures reported in this EIS/EIR are for 2010. Because these regulations are subject to annual review and modification, if warranted, fishing regulations at the time of publication of the Final EIS/EIR may differ from those presented in this document.)

- ***Alternative 1C—Construction of a modified fish passageway and removal of the diversion weir.*** The Fish and Game Commission would implement an amendment to the current fishing regulation to close fishing year-round between Nimbus Dam and the USGS gaging station cable crossing. Modified fishing regulations and closures would be at the discretion of the Fish and Game Commission.

- ***Alternative 2—Replacement of the diversion weir with a six-bay bypass and a denil fish ladder.*** (A denil fish ladder is a roughened ramp that is smaller and requires less flow than a pool and weir-style fish ladder.) Existing fishing closures within 250 feet of the fish ladder entrance and outfall would remain in effect.

- ***No Action Alternative***—Continue existing operations and conditions.

Also analyzed under Alternatives 1A, 1C, and Alternative 2 were three visitor management options for Nimbus Shoals: 1) public vehicle access with defined parking, 2) walk-in only (no public vehicle) access, and 3) no public access. Administrative access for such purposes as operations and maintenance, patrolling, and law enforcement will continue under all three options. A visitor use management team, including representatives of appropriate agencies, will be designated to implement the selected option and long-term management of visitors at Nimbus Shoals. The management team may include representatives of the CDFW, California Department of Parks and Recreation, Reclamation, and other agencies or entities not specifically mentioned here.

Under the public vehicle access with defined parking option, the public would be able to access Nimbus Shoals during established hours by vehicle or by nonmotorized means. However, motorists would not be able to drive off a defined unpaved parking area as they

do now. Driving off the main parking area would be prevented by barriers and would be a citable offense.

Under the walk-in only option the public would have access to Nimbus Shoals during established hours by nonmotorized means, such as on foot or on bicycle. The public could park without charge at the Hatchery to access Nimbus Shoals. Walk-in access would be provided via gates as appropriate.

Under the no public access option, all public access to Nimbus Shoals would be prohibited, and the area would be secured with fencing. Trespassing would be a citable offense.

Basis of Decision and Issues Evaluated

The purpose and need for the federal action takes into consideration Reclamation's regulatory obligations and authority for operating and maintaining the Hatchery and complying with environmental regulations and laws, including the ESA and all biological opinions issued by NMFS and FWS which include the Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project, issued by NMFS in 2009, which include reasonable and prudent alternatives for minimizing flow fluctuations in the lower American River. The project will create and maintain a reliable system for collecting adult fish to allow Reclamation to remain in compliance with mitigation obligations for spawning areas blocked by the construction of Nimbus Dam, while adequately protecting Chinook salmon and CCV steelhead. The decision to construct a new fish passageway will support Reclamation's need to address problems with the weir that could jeopardize adult fish collection and its ability to meet mitigation obligations. A similar design, using a fish barrier dam as the upstream barrier to direct fish to the fish passageway entrance has been successfully used at the Feather River Hatchery for many years. In the EIS/EIR, modifying the fish passageway [Alternatives 1A and 1C] and replacing the weir structure [Alternative 2] were evaluated on how well they met the project's purpose and need and their environmental consequences. Reclamation considered this analysis and public comments received during the scoping process and Draft EIS/EIR review period and identified Alternative 1C as the preferred alternative in the EIS/EIR.

During scoping of the EIS/EIR, the primary issues the public identified were restoring habitat, fishing illegally, maintaining public access to Nimbus Shoals, and providing boating access at Nimbus Shoals. Restoring habitat and addressing illegal fishing were components of the proposed action and alternatives presented in the EIS/EIR. Public use of Nimbus Shoals was considered under a range of visitor management options in the EIS/EIR. Boat launching is not allowed between the Hazel Avenue Bridge and the Nimbus Dam, in accordance with a State Parks Superintendent's Water Safety Order (Order 690-004-2010).

Of the public comments received on the EIS/EIR, general comments consisted primarily of those stating a preference for a particular alternative, with Alternative 1C receiving the

most support. There were also comments indicating public support for limited and controlled access of Nimbus Shoals and also an interest in the ability to launch boats from Nimbus Shoals in the future. These comments were considered by Reclamation in the selection of the preferred alternative and visitor management option.

The alternatives were analyzed to determine their impacts on recreational, environmental, economic, public health and safety, and social issues.

Alternative 2 addressed the needs of the Hatchery, but a weir replacement structure would not satisfy as many of the Hatchery's functional requirements as the fish ladder. While some environmental impacts would be reduced or would not occur under Alternative 2 because of the reduced construction footprint, this alternative lacked some of the beneficial impacts on fisheries and Reclamation's operational flexibility that will occur under Alternative 1. Alternative 2 also has considerably higher construction costs.

Alternatives 1A and 1C are similar in the anticipated levels and types of environmental impacts. Under Alternative 1C, impacts from constructing and operating the fish passageway are similar to those under Alternative 1A, except that impacts from sport fishing will be less than significant due to the change in fishing regulations. Under Alternative 1A, Reclamation will restrict visitor access to Nimbus Shoals as needed to avoid significant impacts on fishery resources. While fishing opportunities will be reduced in the project area under either Alternatives 1A or 1C, increasing the overall abundance of fish in the area will create better sport fishing opportunities within the lower American River in the long term. Fisheries will receive greater protection under Alternative 1C because fishing will be closed permanently between Nimbus Dam and the USGS gaging station cable crossing. Alternative 1C will not impact other recreational uses of Nimbus Shoals because Reclamation will not have to restrict access to limit sport fishing harvest. Alternative 1C will also reduce the potential for the spread of New Zealand mudsnail, an aquatic invasive species, which has been documented just upstream of the USGS gaging station cable crossing. For these reasons, Alternative 1C was identified as the Environmentally Preferable Alternative.

Alternative 1C was selected as the preferred alternative based on interdisciplinary team recommendations, environmental consequences analysis of the alternatives, economic feasibility, and public input. Alternative 1C received the most public support; comments indicated the public's desire to continue fisheries conservation, while providing for some increased recreation opportunities, where feasible.

Alternatives 1A, 1C, and Alternative 2 are anticipated to result in unmitigable significant adverse impacts on noise during construction. The construction noise impacts under each of the alternatives will be temporary, and none of the alternatives will generate significant noise during evening or nighttime hours; construction noise will be limited to normal daytime work hours under each alternative.

Under all project alternatives, cumulative effects are expected to be significant for noise due to the impact of project construction overlapping with other construction activities in

the area. Fisheries, biological resources, recreation, cultural resources, water resources, geology and soils, hazardous materials, public health and safety, infrastructure, energy, air quality, land use, visual resources, and socioeconomics are not expected to have significant cumulative effects.

The No Action Alternative does not address the long-term purpose and the needs of the project and would continue to have adverse impacts on O&M and fisheries and the Hatchery's ability to meet its mitigation requirements.

Environmental Commitments and Monitoring

The EIS supports the needed permits, compliance, coordination, and consultation efforts for the project.

Section 7 of Federal Endangered Species Act (ESA)

Reclamation consulted under Section 7 of the ESA with U. S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) for this action. All action alternatives evaluated in the EIS considered impacts to ESA-listed species and impacts to these species were a consideration in comparison with the No Action Alternative.

U.S. Fish and Wildlife Service

USFWS completed the Biological Opinion (BO) for the Nimbus Hatchery Fish Passage Project on October 11, 2011.

Construction of the fish passageway will result in the direct loss of one large elderberry shrub, potentially providing habitat for the valley elderberry longhorn beetle (VELB) (*Desmocerus californicus dimorphus*), listed as threatened under the ESA. Construction activities will be within 100 feet of 13 other elderberry shrubs that could provide potential habitat for VELB. USFWS concluded in its biological opinion that the proposed project is not likely to jeopardize the continued existence of the species, and is not likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the VELB in the wild.

USFWS Reasonable and Prudent Measure USFWS determined that the reasonable and prudent measure below is necessary and appropriate to minimize the effects of the proposed project on the VELB, and ensure compliance with the BO terms and conditions which implement the reasonable and prudent measure.

1. All of the Conservation Measures proposed in the BA Project Description, as restated or summarized in this biological opinion, must be fully implemented.

Reclamation will implement the terms and conditions contained in the BO, including all reporting requirements.

National Marine Fisheries Service

NMFS completed the BO for passageway construction (Phase I) and operating and evaluating to support the integration (Phase II) of the new fishway on August 21, 2012. NMFS BO concluded that Nimbus Fish Hatchery Fish Barrier Weir and Ladder Modification project Phase I and II, as proposed, is not likely to jeopardize the continued existence of CCV steelhead, and is not likely to adversely modify designated critical habitat of CCV steelhead. Because detailed information on Phase III (decommissioning the portions of existing facilities that are no longer needed) cannot be developed until after the completion of Phase II, Phase III documentation is inadequate to assess the effects of the weir removal at this time. If Reclamation proceeds with Phase III and when all the design criteria are known, additional consultation with NMFS may be required.

In addition to the proposed Avoidance and Minimization Measures, the following measures will be implemented to mitigate and further reduce the adverse impacts on fisheries identified for the proposed action:

- Develop and implement a fish capture and relocation program that will help reduce direct take of fish during building and removal of the temporary cofferdam, dewatering, and cleaning up debris or spills. The program should require a qualified fish biologist, with all required ESA permits, to oversee field operations and capture and to determine suitable times and locations to release captured fish;
- Develop and implement a detailed re-vegetation plan for replacing trees removed to accommodate the construction of the proposed project, including a replacement compensation ratio (*e.g.*, 3:1) for temporal impacts to shaded, riverine aquatic habitat, to be determined after a NMFS site visit to the impacted area; and,
- During dewatering operations, only low-flow pumps with screened intakes will be utilized to minimize injury and death from project construction.

Essential Fish Habitat Conservation Recommendations

I. Identification of Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended (16 U.S.C. § 1801 *et seq.*), requires that Essential Fish Habitat (EFH) be identified and described in Federal fishery management plans (FMPs). Federal action agencies must consult with NOAA's National Marine Fisheries Service (NMFS) on any activity which they fund, permit, or carry out that may adversely affect EFH. NMFS is required to provide EFH conservation and enhancement recommendations to the Federal action agencies.

EFH Conservation Recommendations As the habitat requirements of Central Valley fall-run Chinook salmon within the action area are similar to those of CCV steelhead addressed in the attached biological opinion, NMFS recommends that term and conditions listed in the incidental take statement prepared for the CCV steelhead DPS in the associated biological opinion for the proposed Nimbus Fish Hatchery Fish Passage Project, be adopted as EFH conservation recommendations.

Riparian Habitat Management In order to prevent adverse effects to riparian corridors, the Bureau of Reclamation (Reclamation) should:

- Maintain riparian management zones of appropriate width along American River;
- Reduce erosion and runoff into waterways within the project area; and
- Minimize the use of chemical treatments within the riparian management zone to manage nuisance vegetation along the levee banks.

Bank Stabilization The installation of riprap or other streambank stabilization devices can reduce or eliminate the development of side channels, functioning riparian and floodplain areas and off channel sloughs. In order to minimize these impacts, the Reclamation should:

- Use vegetative methods of bank erosion control whenever feasible. Hard bank protection should be a last resort when all other options have been explored and deemed unacceptable;
- Determine the cumulative effects of existing and proposed bio-engineered or bank hardening projects on salmon EFH, including prey species, before planning new bank stabilization projects; and

Develop plans that minimize alterations or disturbance of the bank and existing riparian vegetation.

Best Management Practices

Measures implemented to minimize and mitigate adverse impacts on water quality include:

- Removal of litter and construction debris from the floodway and disposed of at an approved upland site;
- Adequate provisions (*e.g.*, sediment barriers and drainage settling basins) will be provided for any temporary access roads constructed in the floodway or near any body of water, to prevent sediment from getting into the water;
- Appropriate erosion control measures will be incorporated into the stormwater pollution prevention program;
- Any construction material placed in the water will be nontoxic. Any combination of wood, plastic, concrete, or steel will be acceptable, provided there are no toxic coatings, chemical antifouling products, or other toxic treatments that may leach into the surrounding environment;
- Post-project construction, temporary access roads will be removed, re-graded to original contours where feasible, and restored; and,
- A Spill Prevention and Countermeasure Plan (SPCP) will be in place, consisting of : (1) checking and maintaining equipment and vehicles operating in the staging areas in the floodway or near any water bodies to prevent leaks of fuels, lubricants, and other fluids; and (2) immediately cleaning up any spills of hazardous material, and reporting spills in construction compliance reports.

Cultural Resources – Section 106

Reclamation consulted with the State Historic Preservation Officer. Reclamation's cultural resource specialists surveyed and evaluated the Nimbus Fish Hatchery complex and determined it to be ineligible for listing on the National Register of Historic Places. The complex does not qualify as a historic resource, and there will be no historic architectural resources impacted by project implementation. The State Historic Preservation Officer concurred with this determination on September 7, 2010.

Sections 401 and 404 of the Clean Water Act

Construction of the fish passageway will involve dredging and dewatering, resulting in temporary impacts of approximately 0.79 acre of Waters of the United States and permanent impacts of approximately 0.05 acre of Waters of the US. However, 0.35 acre of Waters of the United States will be restored to a more natural condition when the existing weir is removed, and approximately 0.04 acre of other waters will be created in the rock channel portion of the fish ladder. Reclamation will develop a wetlands mitigation plan for the acreage of waters of the United States that will be permanently impacted by the construction of the proposed project. The mitigation plan will entail the replacement or restoration and enhancement of designated wetlands on a "no-net-loss" basis, in accordance with section 404 of the Clean Water Act regulations.

Reclamation will obtain Section 401 Water Quality Certification, Section 404 Discharge of Dredge or Fill Material into Water, and any other necessary permits. Reclamation will ensure compliance with permit requirements and will require construction contractors to develop and adhere to a stormwater pollution prevention plan.

Clean Air Act (42 USC, Section 7401 et seq.)

In compliance with the Clean Act Air, Reclamation evaluated projected emissions from both project construction and annual operations. Emissions will be below Clean Air Act conformity thresholds, and the project will conform to the Clean Air Act.

Indian Trust Assets

No Indian Trust Assets will be impacted by the project because there are none in the area of potential effect.

Environmental Justice – Executive Order 12898

None of the action alternatives will have environmental justice impacts.

Environmental Commitments

During the project planning and design stages, Reclamation made a number of environmental commitments to reduce the environmental impacts from the proposed action on air quality, biological resources and fisheries, geology and soils, noise, visual resources, and water resources. These measures are incorporated into the project description and include best management practices that will be used to reduce potential impacts during construction and demolition.

The mitigation measures described below may be implemented to further reduce the adverse impacts identified for the Nimbus Hatchery Fish Passage Project. The mitigation measures identified in the Final EIS/EIS for the proposed action are presented below.

Fisheries

- Develop and implement a fish salvage and rescue program that would help reduce direct take of fish during cofferdam, dewatering, and debris or spill cleanup. The program should require a qualified fish biologist, with all required ESA permits, to oversee field operations and salvage and to determine suitable times and locations to release rescued fish.
- When dewatering, use low-flow pumps with screened intakes to minimize injury and mortality to fish from project construction.
- If the State Fish and Game Commission does not close year-round fishing from Nimbus Dam to the USGS Fair Oaks gaging station cable, downstream of the Hatchery, Reclamation will restrict visitor access to Nimbus Shoals to avoid significant impacts on fishery resources. These restrictions may involve full-time or seasonal closures of Nimbus Shoals to the public or public vehicle access.

Biological Resources

- Before construction begins and during the flowering season (May through
- October), a qualified biologist would conduct a survey for valley sagittaria (*Sagittaria sanfordii*) in all areas where permanent impacts would occur. If the species were found, Reclamation will consult with the CDFW to determine appropriate mitigation.

Recreation

- To help prevent illegal boating activity, public outreach and education will be conducted to inform the public that boating is not allowed within 1,000 feet of Nimbus Dam for safety and security reasons.
- In addition, Reclamation will coordinate the Nimbus Hatchery Fish Passage Project with the Nimbus Shoals side channel habitat project to identify opportunities to work together in an effort to potentially facilitate engineering and construction efficiencies and reduce environmental impacts.

Cultural Resources

- To avoid impacts on unanticipated archaeological resources, all work within the vicinity of any potential archaeological finds would be halted until a Reclamation archaeologist could assess the find. Work would not recommence until the requirements of Section 106 (36 CFR, Part 800.13) regarding unanticipated discoveries have been met.

Noise and Vibration

- Significant noise impacts would occur from construction equipment operating in the riverbed under Alternative 1 and Alternative 2. It is not practical to provide noise shielding for equipment operating on the riverbed, so there are no practical

noise mitigation measures for any of the alternatives. Local ordinances for working hours to minimize noise impacts will be followed.

Additional details of the environmental commitments can be found in the *Final Environmental Impact Statement/Environmental Impact Report for the Nimbus Hatchery Fish Passage Project*, Appendix C.

Comments Received on the Final EIS

Reclamation's Notice of Availability of the Final EIS/EIR was published on August 11, 2011, and the Environmental Protection Agency's Notice of Availability was published on August 19, 2011. Copies of the Final EIS/EIR were distributed to those who requested a copy. A press release was released on August 11, 2011, and was sent to the recipients on the Nimbus Hatchery Fish Passage Project mailing list. The Final EIS/EIR was made available on the project website at <http://www.usbr.gov/mp/cca0/hatchery/>.

One letter was received on the Final EIS/EIR, from the US Environmental Protection Agency, requesting that Reclamation formalize its intentions to coordinate the Nimbus Hatchery Fish Passage Project with the Nimbus Shoals side channel habitat project by making a commitment to do so in the Record of Decision. This commitment has been included in Environmental Commitments section.

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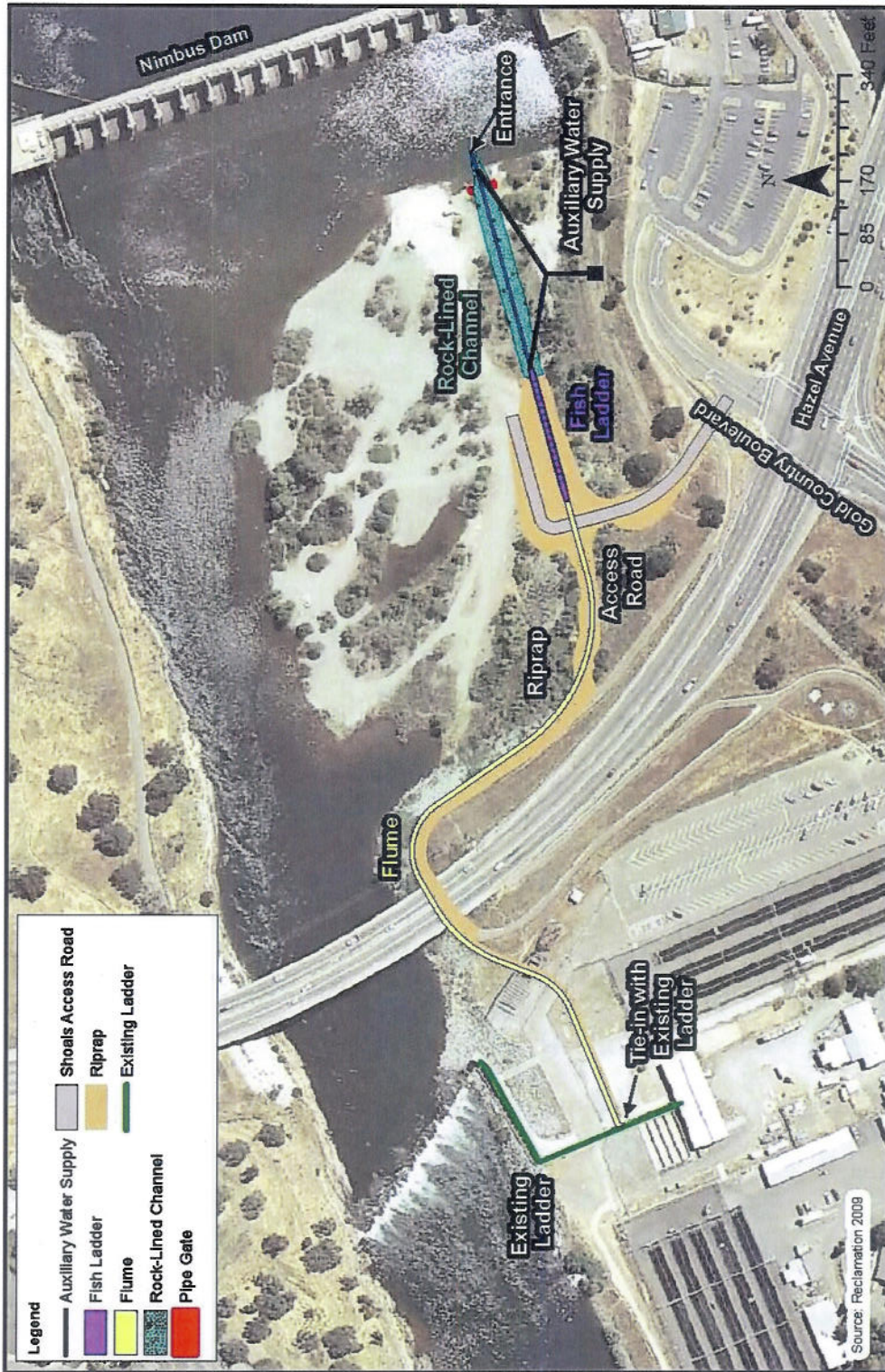


Figure 1 – Modified Fish Passage Project Area

Alternative 1: Modified Fish Passageway

Nimbus Hatchery Fish Passage Project