

**FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
FISH PASSAGE CORRIDOR
ELK CREEK PROJECT
JACKSON COUNTY, OREGON**

INTRODUCTION

The Elk Creek Project was authorized as one of three multiple purpose projects designed to operate as a system to reduce flooding in the Rogue River Basin and to accomplish additional purposes such as irrigation, recreation, fish and wildlife enhancement, and water quality control. The other two dams are complete and operational. Lost Creek Dam was completed in 1976, followed by Applegate Dam in 1980.

Construction of the Elk Creek Project was initiated in 1971 with acquisition of project lands, relocation of residents, and relocation of some roads and utilities. Construction was then deferred in FY 1977 due to a lack of state support for the project.

Following significant review, evaluation, and a public hearing, the State of Oregon, Water Policy Review Board reversed its position and in April 1981 voted to support the construction of Elk Creek dam. Funds were appropriated by Congress in FY 1982 and FY 1983 to update and continue project design, plans, and specifications. Funds were appropriated in FY 1985 to resume construction.

After initiation of construction, an injunction was placed against completion of the project. The injunction required that additional analysis be done to fulfill the requirements of the National Environmental Policy Act (NEPA). Construction of the project was terminated with the project at about one-third its design height and a second supplemental Environmental Impact Statement (SEIS #2) was prepared to conduct the required additional analysis. After completion of the SEIS #2, the Department of Justice filed a motion with the Court to remove the injunction. Though this motion was granted, an appeal was filed and the Ninth Circuit Court of Appeals issued a ruling on April 21, 1995, that reversed the District Court decision that SEIS #2 met the requirements of the earlier Ninth Circuit opinion and the injunction was upheld. The case was remanded back to the Corps with instructions to prepare a third SEIS that adequately addressed all issues raised under the appeal.

Due to the Ninth Circuit Court of Appeals decision and the Federal budgetary climate, the Corps decided not to perform the environmental studies that were necessary to remove the Federal court injunction against completion of the project. The Division Engineer notified the Congressional Appropriations Committees on November 6, 1995, of the Corps' intention to study options for long-term management of the project in its uncompleted state rather than complete the analysis necessary to have the injunction lifted. The plan was to evaluate and implement measures in a two-phase process. The first phase would provide long-term fish passage measures by removing a section of the spillway and left abutment. The second phase would evaluate and implement measures required to resolve land management issues, potential equipment and gravel disposition, cultural resource requirements as well as other issues. Temporary fish passage around the

project would continue to be provided using Corps funds until a long-term solution is implemented. This EA is for Phase 1 actions

As a result of the above, the base condition for this EA is the uncompleted Elk Creek dam. Consequently, the impacts discussed are based on the impacts that will occur by notching the uncompleted dam, not the impacts if the dam was completed. This base condition is particularly relevant for flood control and water supply impacts.

Although the Corps has no plans to perform the studies required to remove the injunction at this time, removal of a section of the spillway and left abutment will not prevent future completion of the project if the analysis is done and the injunction lifted. Removing a section of the dam will provide passive fish passage in accordance with the language in the FY 1997 Energy and Water Development Appropriations Act. In addition, it is the most cost-effective method to provide fish passage over the long term with the project in an uncompleted state, even when including the cost to replace the removed section of the dam if it is completed in the future.

Consultation under the Endangered Species Act (ESA) began in 2000 with the National Marine Fisheries Service (NMFS) concerning alternatives for long-term fish passage at Elk Creek. Four potential upstream fish passage alternatives were evaluated in the Corps' biological assessment (BA). Based on this analysis, it was determined that passage through the existing diversion tunnel and continued operation of the existing temporary trap and haul facility would adversely affect the continued existence of coho salmon in Elk Creek over a ten-to-fifty year period. The assessment found that construction of a new trap and haul facility designed to function effectively with the uncompleted project or removal of a section of the dam to provide a fish passage corridor would not impact the continued existence of the ESA species.

NMFS issued a biological opinion in January 2001. The opinion concluded that passage through the existing diversion tunnel and continued operation of the existing temporary trap and haul facility would result in jeopardy to listed species. The opinion also concluded that the fish passage corridor would not result in jeopardy and, therefore, it would be the best alternative from a biological perspective. Their opinion stated that a new trap and haul facility could result in jeopardy to the continued existence of the species, though there is a chance the impacts of a new trap and haul facility could be reduced to a non-jeopardy level. It stated, however, that there are significant risks associated with the design of a new facility and that these risks are what resulted in their initial jeopardy finding. Since the Corps determined that a new trap and haul facility is more expensive than the fish passage corridor, detailed design of the fish trap was not done to determine if these risks could be reduced to an acceptable level. The opinion recognized the need to operate the existing trap and haul facility in the interim until an acceptable, long-term solution is implemented.

Based upon concerns raised by local residents through elected officials, the ASA (CW) requested an agency review of the Corps' plan to construct the fish passage corridor. In order to allow for this agency review, plans to proceed with the fish passage corridor

(notch) were deferred. In FY 2003, 2004 and 2005, Congress included language that specifically prohibited use of project funding for the fish passage corridor (notch). Congress also directed that project funds be used to plan and implement long-term management measures and to design and construct a permanent trap and haul. The Corps proceeded with design of the permanent trap and haul facility but the design effort was stopped due to lack of funding in FY 2006. In late 2006, the Corps undertook a review of alternatives and again determined that the notch was technically preferred and the lowest cost alternative. In FY 2007, the Corps budgeted for and received funds to continue with design of the notch. In FY 2008, the Corps has budgeted for design and construction of the notch.

A draft Environmental Assessment (EA) was circulated for comment for a fish passage alternative at Elk Creep project in late 1997. The comment period was extended and a public meeting was held to gather further information and additional comments. A Finding of No Significant Impact (FONSI) that recommended notching the dam was signed on January 9, 1998. Lack of construction funding delayed the project at that time. A Supplemental EA was prepared in late 2001 to ascertain whether any new information had been obtained since the issuance of the 1998 EA/FONSI. No new information had been obtained by that time. However, funding restrictions again delayed construction. This current environmental assessment is provided to update information to the public and agencies and supplement the existing NEPA documents. All of the previous NEPA documents are incorporated by reference for this project.

This Supplemental Environmental Assessment is specific for the proposed fish passage corridor project and is provided to supplement the previous documents and provide updated information to the public and agencies.

PURPOSE AND NEED

An acceptable solution to fish passage at Elk Creek Project gained more emphasis with the 1997 Federal listing of the Southern Oregon / Northern California (SONC) coho salmon. The need for the proposed action stems from the court-ordered requirement for fish passage and the directive by Congress in Section 109 of the 1997 Energy and Water Development Appropriations Act to provide passive fish passage. The purpose of the proposed action is to provide passive fish passage through the project area. This action must be economically viable and must provide sustained benefits for anadromous fish.

The present trap and haul operation at Elk Creek Dam results in adverse effects to fish because of mortality and stress and delay in or blocking of upstream migration, all of which reduces spawning success of adults that make it past the dam. The existing condition also limits refuge habitat for juveniles during floods in the lower 1.7 miles of Elk Creek (Satterthwaite et al. 1996; Satterthwaite and Leffler 1997; Satterthwaite 1998, 1999). An acceptable fish passage solution would help resolve these impacts.

ALTERNATIVES

Proposed Action

The proposed action is to remove a portion of the roller compacted concrete dam and spillway structure and realign Elk Creek to its original channel and gradient to restore fish passage through the project area. Notching the dam would require demolition of approximately 50,000 cubic yards (cy) of roller compacted concrete and approximately 15,000 cy of conventional concrete. Realignment of the stream and local grading would require moving approximately 275,000 cy of fill and approximately 1,000 cy of rock. The length of affected stream is approximately 5,000 feet. Bank protection for the restored Elk Creek may be required and may include as much as 5,000 cy of revetment. Revegetation for slope stability and streambank erosion control is also included in the proposed action. A stream flow training wall may also be required to stabilize the creek and may include as much as 14,000 cubic yards of revetment and impermeable core materials. The design will be to provide a fish passage corridor in the stream and to ensure that the stream is geomorphically balanced as much as is reasonably possible immediately following construction. In this way it will help to ensure that it does not immediately adjust and block fish passage. In-stream design features such as rock weirs would maintain water velocities in ranges acceptable for passage of anadromous fish. The plan would also utilize a portion of the existing tailrace to create a backwater area. This backwater would provide over-wintering habitat for juvenile coho and steelhead.

The stream realignment plan was reviewed by the Oregon Department of Fish and Wildlife (ODFW), NMFS, and U.S. Fish and Wildlife Service (USFWS) and determined to be the most effective fish passage solution. The resource agencies are aware that the realignment may change geomorphically following high river flow events and recognize these alterations may impact fish passage for periods of time until it corrects itself or is corrected. However, the design should allow for the river to seek its own balance and should provide long term acceptable fish passage conditions.

The proposed action does not preclude future construction of the dam and actions will be taken to ensure the integrity of the remaining structure.

No Action Alternative

The no action alternative would consist of maintaining the existing embankment and spillway and transporting fish through the trap and haul facility. The existing trap and haul facility was designed for use after the project was completed to provide brood stock for the hatchery for a period of approximately 5 years. It was not designed for long-term use with unregulated flows and debris loads that occur under current conditions. As indicated above NMFS does not find the existing trap acceptable as a long term solution. [insert NMFS opinion about the current structure?]. Replacement of the existing facility, followed by high annual operation and maintenance costs of the trap and haul facility, would be required with the no action alternative. The No Action alternative was, therefore, not considered practicable or cost effective. In addition, Congressional language included in the Water Resources Development Act of 1997 specifically states that the Corps of Engineers will take necessary steps to provide passive fish passage through the project which would not be the case with the trap and haul facility.

AFFECTED ENVIRONMENT

General

The Elk Creek Project is located on Elk Creek at river mile 1.7 above the confluence with the Rogue River, 26.5 miles northeast of Medford, Oregon. The area has been extensively altered by earlier construction for the Elk Creek dam project, which is currently at about one-third its design height with a partial height spillway structure. Areas upstream and downstream of the dam have been altered by original construction activities. Alterations included grading for contractor work areas, stockpiling of construction rock, sand and gravel, and creation of about 2.5 acres of settling ponds for sand and gravel washing operations. The streambed was also realigned from its original location. Despite the impact of the construction work, large areas of both upland and riparian habitat remain undisturbed within the project. Elk Creek streamflows vary greatly depending on the amount of precipitation in any given season. High flows can range to above flood stage (6000 cfs), while low flows average 5 cfs. Turbidity is very high during high flows. Water temperatures likewise vary with lows of 33 degrees F in the winter months and highs as much as 86 degrees F in the summer. Algal blooms typically occur during the summer months.

Physical Resources

Elk Creek is a 303(d) listed stream for water quality. In the project area, the 303(d) listed parameters include temperature, dissolved oxygen (DO), pH, bacteria (*Escherichia coli*), and sedimentation. Most of these parameters are seasonally listed for the summer months (DEQ 2006).

Existing fill material within the floodplain contains construction debris and solid waste resulting from the original dam construction. Settling ponds are also located in the project area. The fill material has been investigated for hazardous substances. Two localized areas that contained elevated levels of metals were found and subsequently removed. No evidence of seepage into groundwater or the adjacent waterways from this material was found. Some construction debris remains within the site and will be removed during the project.

Biological Resources

Habitats in and around the project area support a wide variety of wildlife including elk, black-tailed deer, mountain lion, black bear, gray fox, coyote, beaver, otter, waterfowl, raptors, and upland game birds. The reservoir area also provided important wintering habitat for black-tailed deer and, to a lesser extent elk prior to initial construction. Riparian vegetation along Elk Creek consists of alder, willow, cottonwood and a variety of perennial grasses and forbs. The settling ponds for washing sand and gravel provide habitat for aquatic species including western pond turtle which is considered a sensitive species in the State of Oregon. Elk Creek supports rainbow trout, cutthroat trout, steelhead, coho salmon, chinook salmon, Klamath smallscale sucker, redbelt shiner, sculpin, and Pacific lamprey.

Threatened and Endangered Species

A updated list of endangered species in the project vicinity (USFWS Reference #363131D14723A0868825735A00615947) dated September 18, 2007 was provided by the USFWS. Threatened and endangered species which may utilize the area around Elk Creek project are northern spotted owl and the Southern Oregon/Northern California (SONC) coho salmon. Critical habitat has been designated for both species. There are no proposed species or proposed critical habitats in the project vicinity. Peregrine falcon and bald eagle have been de-listed.

Essential Fish Habitat

The Pacific Fisheries Management Council has designated essential fish habitat (EFH) for three species of Pacific salmon, including Chinook (*O. tshawytscha*), coho (*O. kisutch*), and Puget Sound pink salmon (*O. gorbuscha*) in the Pacific Northwest (PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently or historically accessible to these salmon species in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable barriers. EFH is present at the site for both chinook and coho salmon.

Cultural Resources

Extensive cultural resource investigations were conducted at the Elk Creek project prior to the original dam construction. Based on the results of these investigations and site disturbances from original construction activity, no cultural resources sites would likely be disturbed within the proposed work area.

ENVIRONMENTAL EFFECTS

General

The proposed action will restore fish passage and aquatic habitat in the Elk Creek watershed in the vicinity of the project site. The proposed action is the only fish passage alternative analyzed that is not likely to jeopardize the continued existence of the federally-listed SONC coho salmon and that will provide long-term benefits to this species and its designated critical habitat. Adverse environmental effects from notching the dam and realigning the creek will be minimized by performing work during the designated inwater work period (ODFW 2000) and by complying with measures set forth in the NMFS and FWS Biological Opinions and State of Oregon Water Quality Certificate. The proposed action does not preclude future construction of the dam and actions will be taken to ensure the integrity of the remaining structure.

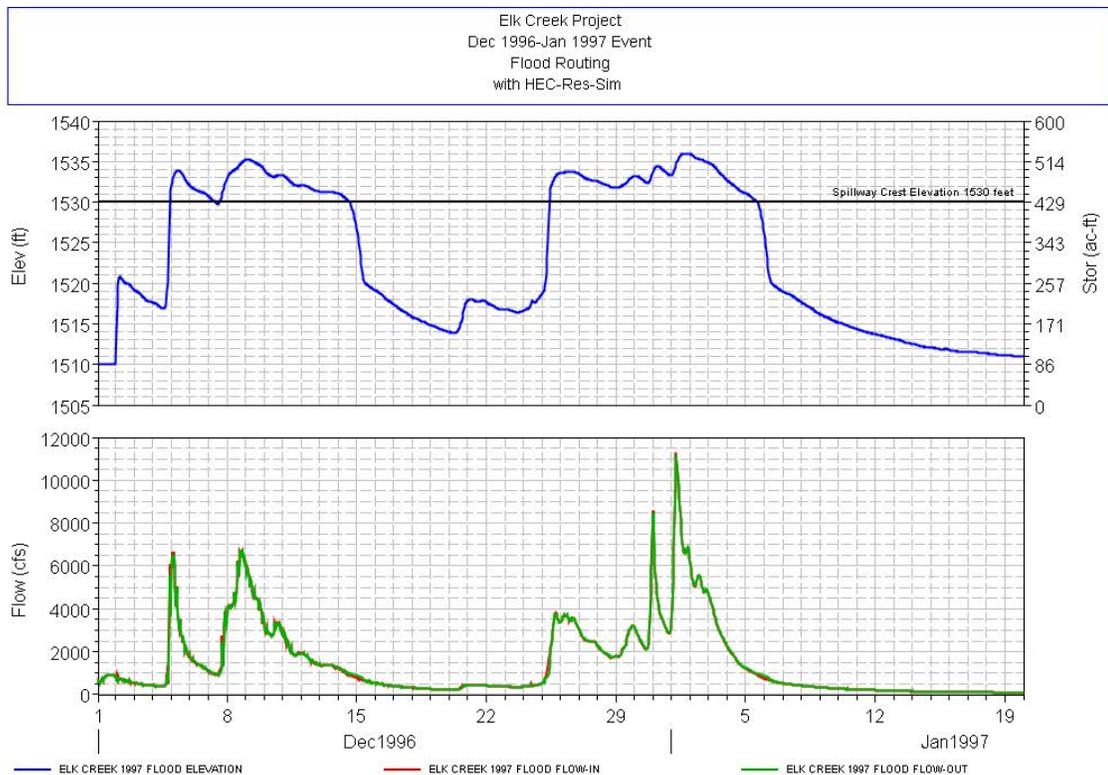
Physical Resources

Short-term turbidity increases would result from construction activities affecting the water. Naturally occurring sediments in the newly constructed channel would be carried downstream and would reform as sandbars at downstream locations similar to that which occurred prior to construction of the dam. Best management practices will be required to protect water quality in Elk Creek throughout all phases of construction. All conditions outlined in the State of Oregon water quality certificate and in the NMFS biological opinion will be met.

Removal of all remaining construction debris from the project would eliminate any potential impacts to the stream from these materials. No additional actions would be required. Impacts to flood control and water supply from the existing unfinished dam would be minimal.

Elk Creek project in its present partially completed condition does not provide any flood control storage. At its existing spillway crest the dam will impound about 190 acre-feet of water. A frequency analysis of daily flows was done for Elk Creek near Trail gage just downstream of the dam. This analysis indicates that the 2-year peak one-day volume at the dam site is 6,300 acre-feet. The 1.1-year peak one-day volume is about 2,900 acre-feet. Therefore, the smallest annual event at the site has about 15 times the volume of storage available in the impoundment behind the dam. This storage would be full long before the peak flow of any event passes through the dam and at that point project out-flow would be equal to inflow and no reduction of flow and stage downstream of the dam on Elk Creek or the Rogue River would be seen.

This is illustrated in the graphic below showing a routing of the 1997 flood which equals to about a 10-year event. The top of the graphic displays pool elevation over time and shows that the elevation reaches the spillway crest within hours of the start of rise in the hydrograph which indicates that the available storage has been filled. The bottom of the graphic displays flow over time and shows that project inflow is equal to outflow virtually through the entire event.



As indicated in the above discussion of flood control storage, Elk Creek Project currently has only minimal storage capacity and, consequently, it would not provide any water that could be used for water supply.

Biological Resources

Restoring the Elk Creek stream channel would create a series of riffles and pools throughout this reach. A combination of rock and gravel would be placed in this reach to provide holding, feeding and spawning habitat for a variety of resident and anadromous fish. Stream conditions would be designed to maximize fish passage potential and provide over-wintering habitat for anadromous fish. Habitat for species such as western pond turtle would be partially removed and disrupted during construction. Shallow ponds for these species would be retained or reconstructed as part of the stream channel realignment work. About 3 acres of riparian habitat would be removed by the new stream alignment; however, it would naturally regenerate along the new stream alignment. Planting of native trees, shrubs, and grasses is also planned to protect stream banks and slopes from erosion. These plantings would also help restore some of the lost habitat. Little or no upland habitat of value would be removed by this action.

Although the bald eagle has been de-listed under the Endangered Species Act, they are protected under the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). The nearest bald eagle nesting location is approximately 4 miles from the project area. No adverse impacts to bald eagle would be expected from implementation of the project. Blasting for rock removal would occur during construction and would be designed and timed to avoid disturbance to peregrine falcons during the nesting season. Although bald eagle and peregrine falcon are no longer federally-listed species, protection measures have been included in the project proposal to minimize any disturbance to these species.

Threatened and Endangered Species

ESA Section 7 consultations for species under the jurisdictions of the NMFS and USFWS have been completed. A biological opinion dated January 22, 2001, was issued by the NMFS and remains valid. The USFWS issued a biological opinion dated February 10, 1998 and it also remains valid. Both NMFS and USFWS are members of the Environmental Coordination Task Force (ECTF). ECTF is a team of federal and state agencies formed to coordinate implementation of the terms and conditions of the biological opinions.

There is some potential for impact to out-migrating juvenile salmonids during construction. Juvenile salmonids will continue to migrate through the project area through June during the planned construction period. The diversion of water through the project area during June would require providing adequate conditions for fish passage. This action, including any potential work outside the normal June 15-September 15 inwater work period, will be coordinated with the resource agencies once a final diversion plan is determined. There is also potential for impacts to salmonids during fill

of the existing tailrace area. It is anticipated that some juvenile salmonids would be present in the area during the fill action. Fill material would be placed in such a manner so as to avoid sudden displacement or stranding of juveniles. The fill placement plan will be coordinated with the resource agencies during construction.

EFH is present for both chinook and coho salmon. Consultation under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) was included as part of the NMFS biological opinion for this project. There will be temporary, short-term impacts to EFH during the excavation and fill activities. There will, however, be long-term benefits to EFH from the stream realignment and the vegetation treatments using native plant species.

The nearest northern spotted owl nesting territory is over 2 miles from the project area. Proposed activities are not likely to adversely affect northern spotted owl or critical habitat.

Cultural Resources

The proposed project is not expected to have adverse effect on any cultural, historic, or archaeological resource. Further coordination with the Oregon SHPO is underway.

Cumulative Effects

There will be some short-term, temporary effects to physical and biological resources from construction activities as previously described. Adverse effects to water resources will be minimized by implementing all requirements of the State water quality certificate, by implementing Best Management Practices (BMPs), and by complying with the terms and conditions of the biological opinions. Substantial long-term benefits for fishery resources will occur by implementing the proposed project and improving fish passage in the Elk Creek watershed.

The second phase of this project will evaluate and implement measures required to resolve land management issues, potential equipment and gravel disposition, and other issues. It is likely that these measures would include the development of land management plans and operational plans for resource management and protection. These measures would likely improve natural resources values within Project lands, improve watershed health, and aid in the recovery and protection of listed species and habitat. Implementation of the second phase will depend upon future funding.

The proposed action does not preclude future construction of the dam and actions will be taken to ensure the integrity of the remaining structure. None of the cumulative effects would preclude completion of the dam sometime in the future.

COORDINATION

This EA was distributed for a 30-day public review. Review comments were requested from federal, state, and local agencies and groups including but not limited to:

U.S. Environmental Protection Agency

U.S. Fish and Wildlife Service
National Marine Fisheries Service
U.S. Forest Service-Rogue River National Forest
U.S. Bureau of Land Management-Medford District
Oregon State Historic Preservation Office
Oregon Department of Environmental Quality
Oregon Department of Fish and Wildlife
Jackson County Commissioners

A total of 316 comments were received on the draft EA. Of these comments, 287 supported notching of the dam as proposed. Support was primarily because of the restored fish and wildlife habitat that would occur with the notching and restoration of project habitat. In addition, support was also expressed for the improved recreational opportunities in Elk Creek for white-water enthusiasts by restoring Elk Creek to a natural system and providing passage through the dam site.

Opposition to the notching was primarily due to concerns about the loss of flood control and water supply in the region. These concerns were related primarily to the original decision not to complete the dam, rather than to the loss of minimal flood control and water supply that are provided with the partially completed dam. A discussion on flood control and water supply available with the partially completed dam has been added to the Final EA. Jackson County offices and a Commissioner also requested that the flood plain mapping for the county be updated to reflect the notching of the dam. The Corps determined that it would not be necessary to update the flood plain mapping since the uncompleted Elk Creek Dam does not provide any flood protection so the existing flood plain mapping would not change.

CONSULTATION REQUIREMENTS

National Environmental Policy Act

This Environmental Assessment satisfies the requirements of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.).

Endangered Species Act

In accordance with Section 7(a) (2) of the Endangered Species Act of 1973, as amended, federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed or proposed threatened or endangered species. Biological assessments were previously prepared for the proposed action addressing federally listed species under the jurisdiction of the NMFS and the USFWS. A Biological Opinion was issued by the NMFS (dated January 22, 2001) and is still valid (NMFS letter dated September 5, 2007). The USFWS issued a Biological Opinion dated February 10, 1998. In a letter dated November 21, 2001, the USFWS concluded that no further coordination is necessary provided that the proposed project has not been altered in design or impacts to listed species. USFWS was again asked to review its early documents and determine if they were still valid. They indicated in an email dated Nov. 7, 2007 that they felt that the earlier consultation was still valid.

Clean Water Act

Section 401 of the Clean Water Act of 1977, as amended, requires certification from the state or interstate water control agencies that a proposed water resources project is in compliance with established effluent limitations and water quality standards. The Oregon Department of Environmental Quality (DEQ) certified that this project complies with the Clean Water Act and state water quality standards. The water quality certificate (WQC) was issued in a letter dated January 14, 2002.

Magnuson-Stevens Fishery Conservation and Management Act (MSA)

We received the Biological Opinion and MSA Consultation from the NMFS dated January 22, 2001. Recommendations to conserve EFH for coho and chinook salmon were included as part of the biological opinion.

Clean Air Act

The Clean Air Act of 1970, as amended, established a comprehensive program for improving and maintaining air quality throughout the United States. Its goals are achieved through permitting of stationary sources, restricting the emission of toxic substances from stationary and mobile sources, and establishing National Ambient Air Quality Standards (NAAQS). Title IV of the Act includes provisions for complying with noise pollution standards. The proposed action is in compliance with this act.

National Historic Preservation Act

Section 106 of the National Historic Preservation Act requires that a federally assisted or federally permitted projects account for the potential effects on sites, districts, buildings, structures, or objects that are included in or eligible for inclusion in the National Register of Historic Places. The project is being coordinated with the Oregon SHPO.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) provides for the protection of Native American and Native Hawaiian cultural items, established ownership and control of Native American cultural items, human remains, and associated funerary objects to Native Americans. It also establishes requirements for the treatment of Native American human remains and sacred or cultural objects found on federal land. This Act also provides for the protection, inventory, and repatriation of Native American cultural items, human remains, and associated funerary objects. Any discoveries will be handled according to Portland District policy.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act of 1934 states that federal agencies involved in water resource development are to consult with the USFWS and state agency administering wildlife resources concerning proposed actions or plans. The proposed action has been coordinated with the USFWS and ODFW in accordance with the Act.

Comprehensive and Environmental Response, Compensation and Liability Act (CERCLA)

The U.S. Environmental Protection Agency has placed the Elk Creek Dam project on the Federal Facilities Compliance Docket to evaluate whether remedial actions are required due to the presence of construction debris within the floodplain. Removal of the remaining construction debris should eliminate the need for further evaluation under CERCLA. The site is on the State of Oregon's Environmental Cleanup Site Information System as a result of the presence of construction debris. The removal actions associated with the proposed project should also eliminate the need for further state evaluation. Should any hazardous, toxic or radioactive material be discovered during construction, its presence will be responded to within the requirements of the law and USACE regulations and guidance.

Analysis of Impacts on Prime and Unique Farmlands

No change to prime and unique farmlands would occur from the proposed action.

Wild and Scenic Rivers Act

The Elk Creek Project was previously coordinated with the U.S. Forest Service and Bureau of Land Management under Section 7(b) of this Act.

The Bald and Golden Eagle Protection Act

As described above there will be no impacts to bald eagle or their habitat from implementation of this project. The nearest nest is over 4 miles from the project construction site.

Migratory Bird Treaty Act and Migratory Bird Conservation Act

These acts require that migratory birds not be harmed or harassed. Under the Migratory Bird Treaty Act, "migratory birds" essentially include all birds native to the U.S. and the Act pertains to any time of the year, not just during migration. The Migratory Bird Conservation Act is to protect game birds. The proposed action may temporarily displace migratory birds. Impacts of construction of the notch could temporarily displace birds by causing flushing, altering flight patterns, or causing other behavioral changes, but it is not expected that effects would rise to the level of harm or harassment.

Executive Order 11988, Floodplain Management

This executive order requires federal agencies to consider how their actions may encourage future development in floodplains, and to minimize such development. The project is within the 100year flood plain of Elk Creek a tributary of the Rogue River. The proposed action is in compliance with Executive Order 11988 because it is restoring the natural floodplain of Elk Creek and will not encourage future development in the flood plain area. Notching the dam will not adversely affect flood control because the current project does not provide any flood storage.

Executive Order 11990, Protection of Wetlands

This executive order requires federal agencies to protect wetland habitats. The proposed action is in compliance with Executive Order 11990 because it will restore the natural function and value of Elk Creek and its associated wetlands..

Executive Order 12898, Environmental Justice

This executive order requires federal agencies to consider and minimize potential impacts on subsistence, low-income or minority communities. The goal is to ensure that no person or group of people should shoulder a disproportionate share of the negative environmental impacts resulting from the execution of this country's domestic and foreign policy programs. This proposed action is in compliance with Executive Order 12898.

LITERATURE CITED

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