



US Army Corps
of Engineers®
San Francisco District

Regulatory Division, Eureka Field Office
601 Startare Drive, Box 14
Eureka, CA 95501

SAN FRANCISCO DISTRICT

PUBLIC NOTICE

Project: REDWOOD CREEK FLOOD CONTROL PROJECT
2011-2016

NUMBER: 250944 N

DATE: July 22, 2011

COMMENTS DUE DATE: August 20, 2011

PROJECT MANAGER: Kelley Reid PHONE: 707-443-0855 x 11

Email: Kelley.e.reid@usace.army.mil

1. **INTRODUCTION:** County of Humboldt Department of Public Works (County), 1106 Second Street, Eureka, California 95501, (contact Mr. Hank Seemann at 707.445.7652) has applied for a 5 ½ -year Department of the Army permit to remove vegetation and gravel from the Redwood Creek Flood Protection Project area during the summer and fall of 2012-2017. This application is being processed pursuant to the provisions of Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403) and Section 404 of the Clean Water Act (33 U.S.C. Section 1344).

2. PROPOSED PROJECT:

Project Site Location: The Redwood Creek Federal Flood Protection Project (Project) is located in the town of Orick, Humboldt County, California from the confluence with Sand Cache Creek at River Mile 0.2 to upstream beyond River Mile 3.5, adjacent to the rodeo fairgrounds and the Redwood National Park.

Project Site Description: Redwood Creek drains a 280 square mile basin in the northwest corner of Humboldt County, California. In 1947 most of the basin was covered with redwood and Douglas fir forests with a few areas of prairie. In response to the logging industry, the town of Orick grew up on the alluvial terraces in the lower reaches. In 1968 the Corps of Engineers (Corps) constructed a levee system around the creek to protect the town from flooding. The flood control basin is approximately 250 feet wide, from the toe of the levees and more than three miles in length. The levees are armored with riprap, but

have been populated with various small trees and shrubs. The basin is composed of alluvial gravel and also supports small trees and shrubs. The Flood Control Project was designed to contain a 250-year flood event, which is considerably more than the 100-year flood event that is the standard for most Corps' flood control projects.

Project Description: The County plans six years of maintenance activities as required by the Corps of Engineers Operation and Maintenance Manual, dated June 1969. To accomplish this, the County proposes to use heavy equipment to remove vegetation and a varying amount of gravel. According to Table 1, below, the County would extract up to 131,000 cubic yards (cy) of gravel in some years from the channel bottom (floodway). However, the County anticipates it would not be extracting more than 40,000 cy in any one year. The County also proposes to trim, thin or remove vegetation from the flood control project in Redwood Creek (See Table 2).

Additionally, the County may need to construct access ramps over the levee in order to perform some of the maintenance in the lower reach of the project. The Corps anticipates that in the duration of the permit, the County would need to construct two access ramps over the levee, which would each require up to 100 cubic yards of sand and gravel to prevent damage to the levees.

Basic Project Purpose: The basic project purpose comprises the fundamental, essential, or irreducible purpose of the project, and is used by USACE to determine whether the project is water dependent. The basic project purpose is flood control.

Overall Project Purpose: The overall project purpose serves as the basis for the Section 404(b)(1) alternatives analysis, and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, while allowing a reasonable range of alternatives to be analyzed. The overall project purpose is to provide a comfortable level of protection from floods to the residents of the Town of Orick and to comply with the County's maintenance agreement with the U.S. Army Corps of Engineers.

Project Impacts: The project has many components which would result in diverse impacts. The direct effects include pollution, injury or mortality to aquatic organisms, and disruption to behavior.

Contamination of groundwater and aquatic habitat with petrochemicals could result from improper fueling or equipment damage.

Construction of temporary stream crossings could result in injury or mortality of fish or other aquatic organisms, including federally threatened or endangered species listed under the Endangered Species Act (referenced below). Temporary crossings can also result in inhibition of migratory runs, or adverse attraction to stream crossings, where the flow may be quicker, more oxygenated, and deeper.

Skimming the gravel bars may also result in injury or mortality to federally listed species of salmonids or inhibition of migratory runs.

The indirect effects of the maintenance activities include less habitat for salmonids and migratory birds, reduced sediment particle size, increased intrusion of fine sediments into redds, increased water temperature, loss of velocity refugia, and stranding of salmonids. Indirect beneficial effects include improved summer rearing potential and improved migration passage.

Proposed Mitigation: The County would consult with an interagency review team to help prioritize maintenance activities in areas with higher flood protection value and less habitat value to increase the benefit/impact ratio. The gravel extraction plans would be designed to avoid direct impact to aquatic species, and to minimize indirect effects associated with alteration of channel morphology, fine sediment inputs, removal of riparian vegetation, and other physical effects. The County would retain the vegetation on the flood control project floor that is smaller than 4 inches diameter at breast height (dbh), while removal and thinning would focus on trees larger than 4 in. dbh. The County plans to remove or

thin only enough vegetation to prevent the expansion of the current 11 acres of vegetation on the project floor. Vegetation on the levees may be removed faster than it regrows, to prevent the willows from damaging the levees. For each gravel bar the County would remove less than 50 % of the area of the vegetation.

3. STATE AND LOCAL APPROVALS:

Water Quality Certification: State water quality certification or a waiver is a prerequisite for the issuance of a Department of the Army Permit to conduct any activity which may result in a fill or pollutant discharge into waters of the United States, pursuant to Section 401 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1341 et seq.). The applicant is hereby notified that, unless USACE is provided documentation indicating a complete application for water quality certification has been submitted to the California Regional Water Quality Control Board (RWQCB) within 30 days of this Public Notice date, the District Engineer may consider the Department of the Army permit application to be withdrawn. No Department of the Army Permit will be issued until the applicant obtains the required certification or a waiver of certification. A waiver can be explicit, or it may be presumed, if the RWQCB fails or refuses to act on a complete application for water quality certification within 60 days of receipt, unless the District Engineer determines a shorter or longer period is a reasonable time for the RWQCB to act.

The County currently has a Section 401 Certification #1B00185WNHU, dated August 25, 2006, which expires August 25, 2011. A new Certification would have to be obtained for project impacts occurring after this date.

Water quality issues should be directed to the Executive Officer, California Regional Water Quality Control Board, North Coast Region, 5550 Skyline Boulevard, Suite A, Santa Rosa, California 95403, by the close of the comment period.

Coastal Zone Management: Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1456(c) et seq.), requires a non-Federal applicant seeking a federal license or permit to conduct any activity occurring in or affecting the coastal zone to obtain a Consistency Certification that indicates the activity conforms with the State's coastal zone management program. Generally, no federal license or permit will be granted until the appropriate State agency has issued a Consistency Certification or has waived its

right to do so. Since approximately 2.5 miles of the project's 3.5 mile length occurs in the coastal zone and may affect coastal zone resources, the applicant is hereby advised to apply for a Consistency Certification from the California Coastal Commission to comply with this requirement.

Coastal zone management issues should be directed to the District Manager, California Coastal Commission, North Coast District Office, 710 E Street, Suite 200, Eureka, California 95501, by the close of the comment period.

Other Local Approvals: The applicant has obtained the Department of Fish and Game (DFG) Streambed Alteration Agreement #R1-04-0031, dated March 2009.

4. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

National Environmental Policy Act of 1969 (NEPA): The Corps will assess the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. Section 4371 et. seq.), the Council on Environmental Quality's Regulations (40 C.F.R. Parts 1500-1508), and the Corps' Regulations (33 C.F.R. Part 230 and Part 325, Appendix B). Unless otherwise stated, the Environmental Assessment will describe only the impacts (direct, indirect, and cumulative) resulting from activities within the Corps' jurisdiction. The documents used in the preparation of the Environmental Assessment will be on file with the U.S. Army Corps of Engineers, San Francisco District, Regulatory Division, 1455 Market Street, San Francisco, California 94103-1398.

Endangered Species Act of 1973 (ESA): Section 7 of the Endangered Species Act requires formal consultation with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) if a Corps permitted project may affect any Federally listed threatened or endangered species or its designated critical habitat. The Corps has determined that the proposed project may affect federally-listed threatened species, including Southern Oregon/ Northern California Coasts (SONCC) coho, California Coastal (CC) Chinook, and the Northern California (NC) steelhead. ESA prohibits any federal action or federally permitted projects from activities, which would jeopardize the recovery of any federally threatened or endangered species. The Corps will consult with U.S. Fish and Wildlife Service and

National Marine Fisheries Service to determine the effects of the proposed project on the listed species.

Magnuson-Stevens Fisheries Conservation and Management Act: (MSFCMA): Section 305(b)(2) of the MSFCMA of 1966, as amended (16 U.S.C. § 1801 *et seq.*), requires Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all proposed actions authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH). EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH is designated only for those species managed under a Federal Fisheries Management Plan (FMP), such as the *Pacific Groundfish FMP*, the *Coastal Pelagics FMP*, and the *Pacific Coast Salmon FMP*. As the Federal lead agency for this project, USACE has conducted a review of previous documents concerning maintenance of the Redwood Creek Flood Control Project to determine the presence or absence of EFH in the project area. Based on this review, USACE has made a *preliminary* determination that EFH is present at the project location or in its vicinity, and that the critical elements of EFH may be adversely affected by project implementation. The project area includes EFH for Pacific Coast Salmon FMP, including coho and chinook Salmon. To address project related impacts to EFH, USACE has initiate consultation with NMFS, pursuant to Section 305(5)(b)(2) of the Act. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project.

Marine Protection, Research, and Sanctuaries Act (MPRSA): Section 302 of the MPRS of 1972, as amended (16 U.S.C. § 1432 *et seq.*), authorizes the Secretary of Commerce, in part, to designate areas of ocean waters, such as the Cordell Bank, Gulf of the Farallones, and Monterey Bay, as National Marine Sanctuaries for the purpose of preserving or restoring such areas for their conservation, recreational, ecological, or aesthetic values. After such designation, activities in sanctuary waters authorized under other authorities are valid only if the Secretary of Commerce certifies that the activities are consistent with Title III of the Act. No Department of the Army Permit will be issued until the applicant obtains the required certification or permit. The project does not occur in sanctuary waters, and a *preliminary* review by USACE indicates the project would not likely affect sanctuary resources. This presumption of effect, however, remains

subject to a final determination by the Secretary of Commerce, or his designee.

National Historic Preservation Act (NHPA): Section 106 of the NHPA of 1966, as amended (16 U.S.C. § 470 *et seq.*), requires Federal agencies to consult with the appropriate State Historic Preservation Officer to take into account the effects of their undertakings on historic properties listed in or eligible for listing in the *National Register of Historic Places*. Section 106 of the Act further requires Federal agencies to consult with the appropriate Tribal Historic Preservation Officer or any Indian tribe to take into account the effects of their undertakings on historic properties, including traditional cultural properties, trust resources, and sacred sites, to which Indian tribes attach historic, religious, and cultural significance. USACE has made a *preliminary* determination that historic or archaeological resources are not likely to be present in the permit area, and that the project either has no potential to cause effects to these resources or has no effect to these resources due to the extensive modifications that resulted from the 1964 flood and subsequent construction of the flood control project. USACE will render a final determination on the need for consultation at the close of the comment period, taking into account any comments provided by the State Historic Preservation Officer, the Tribal Historic Preservation Officer, the Advisory Council on Historic Preservation, and Native American Nations or other tribal governments. If unrecorded archaeological resources are discovered during project implementation, those operations affecting such resources will be temporarily suspended until USACE concludes Section 106 consultation with the State Historic Preservation Officer or the Tribal Historic Preservation Officer to take into account any project related impacts to those resources.

5. COMPLIANCE WITH THE SECTION 404(b)(1) GUIDELINES: Projects resulting in discharges of dredged or fill material into waters of the United States must comply with the Guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b) of the Clean Water Act (33 U.S.C. § 1344(b)). An evaluation pursuant to the Guidelines indicates the project is dependent on location in or proximity to waters of the United States to achieve the basic project purpose. This conclusion raises the (rebuttable) presumption of the

availability of a practicable alternative to the project that would result in less adverse impact to the aquatic ecosystem, while not causing other major adverse environmental consequences. The applicant has been informed to submit an analysis of project alternatives to be reviewed for compliance with the Guidelines.

6. PUBLIC INTEREST EVALUTION: The decision on whether to issue a Department of the Army permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the project and its intended use on the public interest. Evaluation of the probable impacts requires a careful weighing of the public interest factors relevant in each particular case. The benefits that may accrue from the project must be balanced against any reasonably foreseeable detriments of project implementation. The decision on permit issuance will, therefore, reflect the national concern for both protection and utilization of important resources. Public interest factors which may be relevant to the decision process include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

6. CONSIDERATION OF COMMENTS: USACE is soliciting comments from the public; Federal, State and local agencies and officials; Native American Nations or other tribal governments; and other interested parties in order to consider and evaluate the impacts of the project. All comments received by USACE will be considered in the decision on whether to issue, modify, condition, or deny a Department of the Army Permit for the project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, and other environmental or public interest factors addressed in a final environmental assessment or environmental impact statement. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the project.

7. SUBMITTING COMMENTS: During the specified comment period, interested parties may submit written comments to Kelley Reid, San Francisco District, Regulatory Division, Eureka Field Office, 601

Startare Drive, Box 14, Eureka, California 95501; comment letters should cite the project name, applicant name, and public notice number to facilitate review by the Regulatory Permit Manager. Comments may include a request for a public hearing on the project prior to a determination on the Department of the Army permit application; such requests shall state, with particularity, the reasons for holding a public hearing. All substantive comments will be forwarded to the applicant for resolution or rebuttal. Additional project information or details on any subsequent project modifications of a minor nature may be obtained from the applicant and/or agent, or by contacting the Regulatory Permit Manager by telephone or e-mail cited in the public notice letterhead. An electronic version of this public notice may be viewed under the *Current Public Notices* tab on the USACE website: <http://www.spn.usace.army.mil/regulatory/>.

Table 1 Likely gravel extraction work areas, techniques, and maximum extraction volumes.

| Bar | Expected frequencing permit period (2011-2016) | Likely Techniques | Disturbance area per extraction | | Maximum volume per extraction (yd ³) |
|-----|--|--------------------|---------------------------------|--------|--|
| | | | (ft ²) | (acre) | |
| 11 | 4-6 times | Skim and/or trench | 200,000 | 4.6 | 25,000 |
| 10 | 0-2 | Skim | 40,000 | 0.92 | 6,000 |
| 9 | 0-2 | Skim | 50,000 | 1.15 | 7,500 |
| 8 | 2-4 | Skim and/or alcove | 60,000 | 1.4 | 10,000 |
| 7 | 3-6 | Skim and/or alcove | 70,000 | 1.6 | 15,000 |
| 6 | 1-2 | Skim and/or alcove | 60,000 | 1.4 | 12,500 |
| 5 | 5-6 | Skim | 80,000 | 1.8 | 12,500 |
| 4 | 5-6 | Skim | 85,000 | 2.0 | 12,500 |
| 3 | 5-6 | Skim and/or alcove | 80,000 | 1.8 | 12,500 |
| 2B | 0-2 | Skim | 35,000 | .80 | 5,000 |
| 2A | 0-2 | Skim | 70,000 | 1.6 | 7,500 |
| 1 | 0-2 | Skim | 30,000 | .70 | 5,000 |

Note: See Figure 1 for bar locations. Estimates are approximate and conservative. Proposals will depend on available Humboldt County resources, bar configurations, and actual gravel accumulation levels.

Table 2 The likely amount and location of vegetation treatments.

| Bar | Expected Treatment | Vegetation Type | Expected Frequency during Permit Period (2011-2016) | Highest Expected Disturbance Area per Treatment (ft ²) |
|------|---|--|---|--|
| 9-11 | Likely none | - | - | - |
| 8 | Trimming, thinning and or removing vegetation (notches) | Vegetated island | Twice | TR: 2,500 TH: 5,000 RE: 2,000 |
| | Trimming | Vegetated strip adjacent to side-slope | Once | TR: 3,000 |
| 7 | Trimming and/or thinning | Vegetated island | Once to twice | TR: 1,000 Th: 2,000 |
| 6 | Trimming | Isolated patches | Once to twice | TR: 2,000 |
| 5 | Thinning | Vegetated island | Once | TH: 4,000 |
| | Trimming | Vegetated strip adjacent to side-slope | Four times | TR: 7,000 |
| 4 | Trimming, thinning and/or removing vegetation (notches) | Vegetated island | Once to twice | TR: 3,000 TH: 5,000 RE: 1,000 |
| 3 | Trimming and/or removing vegetation (notches) | Vegetated island | Once to twice | TH; 6,000 RE: 500 |
| | Trimming | Vegetated strip adjacent to side-slope | Twice | TR: 5,000 |
| 2B | Trimming | Isolated patches and | Four times | TR: 8,000 |

| | | | | |
|----|--------------------------|--|------------|------------------------|
| | | vegetation adjacent to levee. | | Th: 5,000 |
| 2A | Trimming and/or thinning | Vegetated strip adjacent to side-slope | Four times | TR: 8,000 TH: 5,000 |
| 1 | Trimming and/or thinning | Vegetated strip adjacent to side-slope | Four times | TR: 5,000 TH: 5,000 |

TR – indicates trimming

TH – indicates thinning

RE – mechanical removal, including removing roots.

Biological Assessment for Levee Maintenance Operations
in Lower Redwood Creek, Humboldt County, California

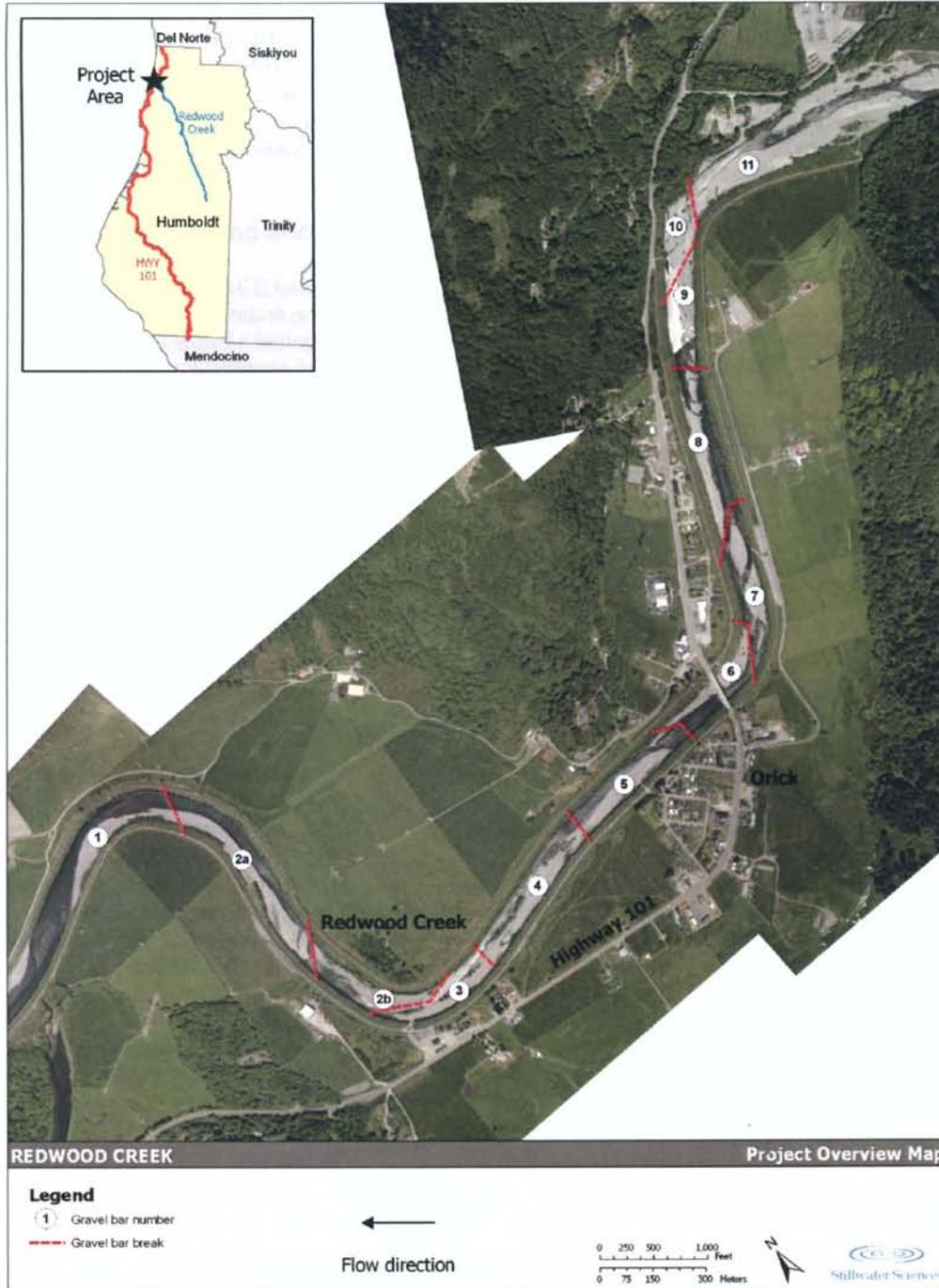


Figure 1. Project location and overview.