

April 24, 2006

**Public Notice for Water Quality Certification and/or
Waste Discharge Requirements (Dredge/Fill Projects)**

USFWS, Humboldt Bay National Wildlife Refuge
WDID No. 1B05161WNHU

Humboldt County

On November 22, 2005, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application from the United States Fish and Wildlife Service requesting a Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects) for the *Salmon Creek Anadromous Salmonid Access, Tide Water Habitat Enhancement and Flood Control Maintenance Project* in Humboldt County. The proposed project will cause disturbances to waters of the United States associated with Humboldt Bay and the Eureka Plain Hydrologic Unit No. 110.00.

Salmon Creek and Hookton Slough are part of the Humboldt Bay National Wildlife Refuge (Refuge) located near Arcata, Humboldt County at T3N, R1W, Sections 5 and 6, T4N, R1W, Sections 31 and 32. Salmon Creek and Salmon Creek Estuary drain to Hookton Slough, a tributary of Humboldt Bay. The purpose of the proposed project is to enhance salmonid habitat and access, while implementing flood control. The applicant proposes to replace three existing tidegates, install one new tidegate, and conduct channel maintenance at three locations. The purpose of the tidegate replacement project is to increase drainage capacity of the Salmon Creek flood plain, which receives water from 313 acres of private and Refuge land. The proposed project involves dredging. The dredged materials will be used to build up existing levees and dikes. Refuge lands are a mosaic of tidal, freshwater, and upland habitats, which are managed by the USFWS; all project activities will occur on federal lands.

Tidegate Replacements:

End of Hookton Slough Tidegate

The existing tidegate at the end of Hookton Slough (40*40'31.45N/124*12'47.32"W), a 36-inch diameter steel culvert pipe, has a malfunctioning flap gate. The replacement tidegate is a 48-inch corrugated plastic culvert with a side hinge gate. Installation will involve placement of approximately 50 cubic yards of new washed and sorted gravel and bentonite clay to provide a seal and stabilization. Approximately 400 square feet of existing levee will be excavated to accommodate the larger diameter culvert. Equipment will be staged on an existing dike.

South Bank Tidegate

The existing tidegate at the south bank of Hookton Slough, (40* 40'35.41"N/124*13'06.88"W), is a 5-foot by 8-foot concrete structure with a top hinge gate. The gate at this site will be replaced with a side-hinged gate with an auxiliary door. No excavation is required at this site, and the existing dike road will be used for equipment staging. Activities associated with tidegate replacements at the end of Hookton Slough and on the south bank of Hookton Slough will occur during low or no flow conditions during one tide cycle.

East Tidegate

The third tidegate to be replaced is located at the east end of Hookton Slough (40°40'47.03"N/124°13'01.57"W); conditions at this location will require that the work area be isolated during the tidegate replacement project. The applicant proposes to install, by pile driver, a temporary cofferdam constructed of 75 feet of sheet piling to an elevation of 10 feet. The cofferdam installation involves placement of temporary fill, consisting of 60 square feet of native material for backfill, 150 square feet of fabric bags filled with native rock for the interior of the cofferdam, and 38 square feet of sheet pilings for the exterior of the cofferdam. Equipment used to install the cofferdam will work from the existing levee. Water from the work site will be pumped to an approved area behind the levee. The applicant proposes to use a saw to cut the concrete apron to remove the existing tidegate. The material from the cut will be removed to an existing levee located along Hookton Slough; the approximately 72 cubic yards of concrete will be used to armor the levee north of the Long Pond. The tidegate installation will include placement of approximately 28 cubic yards of rock slope protection covering 753 square feet on the interior of the levee; this material will be permanent fill. The applicant proposes to place an additional approximately 222 cubic yards of temporary fill covering 210 square feet. The new tide gate will be a concrete structure with three 6x8-foot chambers. In order to accommodate the tidegate, the applicant proposes to temporarily remove 14 cubic yards of rock slope protection (RSP) and then return the RSP to the slough side of the levee, with a 1:1 transition for the tidegate. A temporary fabric bag cofferdam consisting of 4 x 4x 5-foot bags, filled with native material and covered with geotextile fabric, will be used as an equipment access road.

New Tidegate:

The applicant proposes to install a new tidegate, West Gate (40°40'59.77"N/124°13'25.09"W); this project will involve pile driver installation of approximately 75 feet of a temporary sheet piling to create a cofferdam to an elevation of 9 feet. The 75 feet of sheet piling is considered temporary fill. The cofferdam will isolate the work area from the tidewater in Hookton Slough. Water from the work site will be pumped to an approved site. USFWS biologists will relocate aquatic life to Hookton Slough. Equipment used to install the cofferdam will be operated from the existing dike. Approximately 360 cubic yards of the levee will be removed to accommodate the new concrete tidegate structure, which has three 6x8-foot chambers. Two of the chambers have side-hinged gates, and the middle chamber has an adjustable top-hinged gate. The adjustable gate allows tidal mixing and continuous fish passage between Hookton Slough and Salmon Creek estuary. Temporary removal of approximately 2.5 tons of rock slope protection will accommodate the installation; it will be replaced on the slough side of the new tidegate and levee. An additional 270 cubic yards of rock slope protection will be excavated from the slough channel to allow for a transition to the new tidegate. A temporary fabric bag cofferdam consisting of 4 x 4x 5-foot bags, filled with native material and covered with geotextile fabric, will be used as an equipment access road. All excavated material will be used to raise the elevation of the interior dike at Cattail Creek on the Refuge. All fill will be placed above the Mean High Water level. Work on the new tidegate is estimated to take 40 days.

Channel Maintenance:

The applicant proposes to conduct channel maintenance activities in three areas in order to increase tidewater habitat and sediment routing. The first area is a 1900-foot section on Salmon Creek, where a break in slope has occurred upstream from the east gate. The channel will be restored to a trapezoidal configuration, approximately 10 feet at the base, 15 feet at the top of the bank, and 6 feet deep, through the removal of 75 cubic yards of sediment. Excavated sediment will be used to increase the elevation of the Cattail Creek dike, located on the northern boundary of the Salmon Creek Unit. The applicant will use an existing road for equipment access. The other two channel maintenance areas are two drainage outlets adjacent to Salmon Creek that have filled with sediment. The applicant proposes to dredge approximately 250 cubic yards of sediment from a 50-foot length of channel, restoring the channel to the previous dimensions of 3 x 8 x 2.5 feet. The proposed maintenance will improve outlet drainage between these two adjacent wetlands and the main channel, expanding estuary habitat area and improving tidal circulation.

The applicant indicates that all excavation activities will occur in dewatered channels; two of the tidegate replacements will occur during a single low tide cycle to avoid impacts to Waters of the United States. No equipment will be operated in tidal waters. Silt fencing will be used in Salmon Creek below channel excavation sites to prevent sediment transport. If silt fencing does not adequately contain sediment generated by the construction activity, all activity will be suspended until other measures can be implemented. Salvaged concrete will be used as revetment on the existing levee. Construction will occur during the low flow and dry season, typically between July 1 and October 31. The applicant estimates that construction of the new and the replacement tidegates will take 40 days each for completion. The new west tidegate will be constructed first, allowing for the diversion of Salmon Creek through this tidegate. The replacement of both single barrel/chamber tidegates will occur during a single low tide cycle. Replacement of the single barrel/chamber tide gates located at the end of Hookton Slough and on the south bank levee of Hookton slough is expected to take a single day, and will be conducted during a period of no runoff and at low tide. Therefore, work at these two sites will not require the installation of flow barriers or fish barriers, nor will it involve dewatering of the work areas. Excavation of the knick point in Salmon Creek and wetland channel outlets will occur at the end of the work season in October. Silt fencing will be installed along the perimeter of the temporary stockpile areas to prevent runoff from leaving the site. All cofferdams used for temporary access will be removed as soon as they are no longer needed. The applicant will employ Best Management Practices (BMP) to prevent or minimize impacts to Waters of the United States from construction related erosion, stormwater runoff, or accidental spills associated with equipment, as described in Section 3 of the *California Stormwater Best Management Practices Handbook*.

The proposed project area, Salmon Creek, supports several listed fish species: Coho salmon, Chinook salmon, tidewater goby, steelhead, and coastal cutthroat trout, a California species of concern. Authorized biologists will place a temporary fish barrier or screen in Salmon Creek, during an ebb tide, above the knick point work site. The biologist will net and move any fish present, relocating them downstream of the fish barrier/screen. Any fish that may be present in an overflow area will be moved out of the area and relocated before construction of cofferdams.

A qualified botanist will survey for plant species of concern in the areas proposed for use as temporary access and staging. If such plants are found, the access and staging areas will be located to avoid these plants. If avoidance is not possible, these plants will be excavated and stored appropriately for replanting during restoration of the access and staging areas. The fish biologist will identify, record, and report to appropriate fisheries agencies all fish captured and relocated, or the occurrence of any mortality. A qualified botanist will survey for plant species of concern in the areas proposed for use as temporary access and staging. Several photographic points will be established to document all work performed. Photographs will be taken at a sufficient frequency to document each stage of work.

The applicant has applied for coverage under the United States Army Corps of Engineers Nationwide Permit 27 for *Stream and Wetland Restoration Activities*, pursuant to Clean Water Act Section 404 (33 U.S. C. Section 1344). The California Department of Fish and Game determined that the project does not require a Lake or Streambed Alteration Agreement (1600 Permit). The Humboldt Bay National Wildlife Refuge submitted a Negative Declaration to the Federal Consistency Division of the California Coastal Commission. The Humboldt Bay Harbor, Recreation and Conservation District, as lead California Environmental Quality Act (CEQA) agency, has prepared a Notice of Exemption with the State Office of Planning and Research for this project. The CEQA Categorical Exemptions are for *Replacement and Reconstruction*, Class 2 Section 15302, *Minor Alterations to Land*, Class 4 Section 15304(d), and *Small Habitat Restoration*, Title 14, Class 33, Section 15333. The cultural resource survey, conducted pursuant to Section 106 of the National Historic Preservation Act, concluded that the restoration project would not adversely affect archeological or paleontological resources. The Regional Water Board staff propose to regulate this project pursuant to Section 401 of the Clean Water Act (33 USC 1341) and/or Porter-Cologne Water Quality Control Act authority. In addition, staff will consider all comments received during a 21-day comment period that begins on the first date of issuance of this letter. If you have any questions or comments, please contact Diana Henriouille at (707) 576-2350 or email DHenriouille-Henry@waterboards.ca.gov or Catherine Woody at (707) 576-6723 or email Cwoody@waterboards.ca.gov within 21 days of the posting of this notice.