



US Army Corps
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San Francisco District

SAN FRANCISCO DISTRICT

Regulatory Division
1455 Market Street, 16th Floor
San Francisco, CA 94103-1398

PUBLIC NOTICE

PROJECT: Jacoby Creek Estuary Enhancement and South Gannon Slough Tidal Gate Installation Project

PUBLIC NOTICE NUMBER: 2009-00464N

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COMMENTS DUE DATE: 09-13-2010

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1. **INTRODUCTION:** The City of Arcata (POC: Julie Neander, 1-707-825-2151; 736 F Street, Arcata, California 95521) has applied to the U.S. Army Corps of Engineers (USACE), San Francisco District, for a Department of the Army Permit to conduct the Jacoby Creek Estuary Enhancement and South Gannon Slough Tidal Gate Installation Project, components of the Arcata Baylands project which establishes habitat connectivity encompassing over 1,300 acres of state and federally protected lands. This phase of the project will restore 48.7 acres of tidal habitat by re-establishing an historical tidal channel and establish a properly-functioning tidal drainage network, restore historical connectivity between fringe tidal channels at the transition between tidal and non-tidal lands, and improve winter rearing habitat availability for juvenile salmonids in Arcata, Humboldt County, California. This Department of the Army permit application is being processed pursuant to the provisions of Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 *et seq.*) and Section 10 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C. § 403 *et seq.*)

2. **PROPOSED PROJECT:**

Project Site Location: The Jacoby Creek Estuary enhancement and South Gannon Slough Tidal Gate Installation Project (hereby known as the "Project"), is located just south of the City of Arcata, on the east side of U.S. Highway 101, and directly west of the intersection of Old Arcata Road and Hyland Streets, Humboldt County, California. USGS Quadrangle Map Arcata South, 40.84308 N Latitude, 124.08038 W Longitude.

Project Site Description: Prior to conversion to agricultural land, the seasonal freshwater wetlands, estuarine and freshwater channels between Jacoby, Gannon Slough, Beith, Grotzman, and Fickle Hill Creeks were all hydrologically interconnected. Historically, these channels merged and flooded the lands adjacent to the northeast corner of Humboldt Bay during winter rains. Interconnections and important habitat were lost when the land was drained, channels ditched and straightened, and levees constructed to support agriculture. Currently, fish have no means of reentering Jacoby Creek if they are washed out of the Creek during flood events, due to old levees that line much of the Creek. Hydrologic connectivity is lacking between Jacoby Creek and Gannon Slough and its tributaries (Beith, Grotzman, and Fickle Hill Creeks). One of the limiting factors on salmonid recovery in Humboldt Bay drainages is the availability of salmonid winter rearing habitat in the estuarine lands around the bay. The project site is all jurisdictional tidelands and wetlands pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (CWA).

Project Description: As shown in the attached drawings, the applicant proposes to conduct this restoration work through five critical portions:

- a) Restore estuarine function (up to 17.1 acres) within Gannon Slough and tributaries. This will be achieved by repairing an existing top-hinged tide gate and installing one 4-foot side hinged gate with fish door. This component will allow muted tidal flow to reestablish estuarine conditions in the remnant channel located upstream of the tide gates. This 48-inch tide gate will require the

removal of 343 cubic yards of material from the existing levee, and the replacement of 163 cubic yards of material to install the new 48-inch tide gate.

- b) Restore historical connectivity between fringe tidal channels at the transition between tidal and non-tidal lands (15.9 acres) by installing two new 24-inch diameter 20-foot length culverts with screw gates under the existing railroad grade to connect additional remnant channels to Gannon Slough and its tributaries, which will allow the City to control flow to prevent flooding of adjacent agricultural lands.
- c) Restore 15.3 acres of tidal habitat and channels associated with the Jacoby Creek Estuary by constructing a new setback levee to elevation 10 feet MHHW; this requires 4,098 cubic yards of fill and the removal of approximately 500 feet of existing levee adjacent to Jacoby Creek to allow the creek to reoccupy this area. Maps from the 1870's were referenced to design a tidal channel similar to historical flow regimes to be constructed in the new estuary area. A 36-inch culvert and tide gate with adjustable auxiliary door will be installed in the new levee to allow freshwater flows to enter the estuary area during storm events and to reestablish estuarine connectivity with adjacent freshwater wetland and channel habitats. Also, there will be placement of 245 cubic yards of fill in the 500 feet of existing drainage ditch (which is approximately 0.1 acres in size) to ensure that flows are directed to the newly created channel and to prevent ponding adjacent to the levee that abuts the U.S. Highway 101.
- d) Construct 1,394 lineal feet of new connecting channel between Jacoby Creek and South Gannon Slough (total area of temporary impact is 0.4 acres) to restore an historical tidal channel, provide hydrological connectivity during flood events, and establish a properly functioning tidal drainage network. Material (Approximately 1,200 cubic yards) will be excavated using low-surface pressure equipment. Material removed from the channel will be used to construct the new levee section (see subsection "c", above); excavation will be performed when the existing pasture is dry and haul distances and disturbance of adjacent areas will be minimal.

- e) Two failing culverts on the easternmost boundary of the project site will also be replaced with one 36-inch and one 24-inch culvert to improve channel function and direct flows to the south branch Gannon slough channel. Both will be placed with bottom elevations equivalent to existing conditions. The tide gate will be installed to prevent flooding to adjacent agricultural lands.

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 to restore tidal channels and reestablish hydrologic connectivity while improving habitat availability for endangered salmonids.

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 restore 48.7 acres of tidal habitat by re-establishing an historical tidal channel and establish a properly-functioning tidal drainage network, while restoring historical connectivity between fringe tidal channels at the transition between tidal and non-tidal lands, and improve winter rearing habitat availability for juvenile salmonids.

Project Impacts: See Project Description section for a detailed overview of the impacts and restoration associated with the Project. A total of 2,375 cubic yards of material will be removed, and 4,565 cubic yards of material will be used as fill within the project boundary.

Proposed Mitigation: The applicant will be conducting construction activities from June 15th to October 31st (and November 15th if there is no significant rain event) to avoid and minimize adversely affecting fish, bird, and plant species of concern and to minimize soil compaction and sediment transport. Silt fences will be deployed at the site of the new channel to Jacoby Creek and at culvert installation areas to prevent sediment transport. Tide gate and culvert installation will occur when the project site is dry or exposed during low tide, which will also prevent fish species of concern gaining access to the vicinity of the tide gate. If water is present, the tide gate area will be seined and a fish barrier installed to isolate the work area.

Compensatory mitigation is required for the permanent impacts to 0.8 acres of grazed former tidelands associated with the construction of the new setback levee. Proposed compensatory mitigation includes removing fill from 0.8 acres of upland areas in and adjacent to project site. The mitigation will result in creation of 0.5 acres of palustrine emergent wetlands and 0.3 acres of estuarine intertidal wetlands. The project will create 1,394 linear feet (0.4 acres) of new channel area. The project will also increase coastal resources by a magnitude of 48.7 acres. 15.3 acres of former tidelands will become tidal habitat, tidal action will be restored to 17.1 acres of slough channels, and historical connectivity will be reestablished to 15.9 acres of fringe tidal channels at the transition between tidal and non-tidal lands.

Project Alternatives: The City, in consultation with their design engineer, the U.S. Fish and Wildlife Service (USFWS) biologists and hydrologists, and biologists from the California Department of Fish and Game (CDFG), considered a variety of design options for restoring tidal hydraulic interconnectivity to former tidal channels and associated freshwater channels/wetlands and determined that additional tidal habitat, beyond the proposed design, is not feasible since it could impact existing infrastructure owned by Pacific Gas and Electric (PG&E) and the City of Eureka. It would also significantly increase the number of acres of adjacent agricultural lands that would be inundated by the tide.

In considering design alternatives the City had Jeff Anderson and Associates analyze levee removal and breach of the levee at South Gannon Slough without new levee construction and found that alternative designs would impact PG&E and City of Eureka infrastructure and 71 to 100 acres of agricultural lands, severely limiting the property's viability for agricultural use and grazing habitat for Aleutian cackling geese. To balance these impacts, the City chose the proposed alternative. The tide gate installation will improve drainage for the surrounding area and therefore should allow for better agricultural use in adjacent areas in the spring and possibly winter.

The proposed restoration/enhancements provide habitat benefits to salmonids, waterfowl, shore birds, and other water associated wildlife while maintaining agricultural use and Aleutian Cackling Goose habitat. Careful consideration of the benefits and constraints for this property, and its relationship to other public lands in the North Humboldt Bay area, are why the City, in consultation with the USFWS and CDFG, selected the above described restoration/enhancements as the preferred alternative.

Under a no action alternative, the unmaintained levees

that currently constrain Jacoby Creek would remain and the tide gate modifications and cross connections needed to enhance habitat for salmonids would not occur. Fish habitat for federally-listed salmonids and tidewater Goby would remain limited due to lack of hydrologic connectivity and a limited Jacoby Creek estuary.

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 has submitted an application to the California Regional Water Quality Control Board (RWQCB) to obtain water quality certification for the project, and that certification was issued on June 24, 2010 (WDID No. 1B09079WNHU). Water quality issues should be directed to the Executive Officer, California Regional Water Quality Control Board, North Coast Region, 5550 Skylane 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 the project occurs in the coastal zone or may affect coastal zone resources, the applicant has applied for a Consistency Certification from the California Coastal Commission to comply with this requirement, and the California Coastal Commission issued on July 8, 2010 a notice of intent to issue a coastal development permit (No. 1-09-030). Coastal zone management issues should be directed to the District Manager, California Coastal Commission, North Coast District Office, 710 E Streets, Suite 200, Eureka, California 95501, by the close of the comment period.

Other Local Approvals: The applicant has obtained the following additional governmental authorizations for the project: The California Department of Fish and Game issued a Lake and Streambed Alteration Agreement (No. R1-09-0227) on August 11, 2009 and an associated

amendment on June 17, 2010.

4. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

National Environmental Policy Act (NEPA): Upon review of the Department of the Army permit application and other supporting documentation, USACE has made a *preliminary* determination that the project neither qualifies for a Categorical Exclusion nor requires the preparation of an Environmental Impact Statement for the purposes of NEPA. At the conclusion of the public comment period, USACE will assess the environmental impacts of the project in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347), the Council on Environmental Quality's Regulations at 40 C.F.R. Parts 1500-1508, and USACE Regulations at 33 C.F.R. Part 325. The final NEPA analysis will normally address the direct, indirect, and cumulative impacts that result from regulated activities within the jurisdiction of USACE and other non-regulated activities USACE determines to be within its purview of Federal control and responsibility to justify an expanded scope of analysis for NEPA purposes. The final NEPA analysis will be incorporated in the decision documentation that provides the rationale for issuing or denying a Department of the Army Permit for the project. The final NEPA analysis and supporting documentation will be on file with the San Francisco District, Regulatory Division.

Endangered Species Act (ESA): Section 7(a)(2) of the ESA of 1973, as amended (16 U.S.C. § 1531 *et seq.*), requires Federal agencies to consult with either the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) to insure actions authorized, funded, or undertaken by the agency are not likely to jeopardize the continued existence of any Federally-listed species or result in the adverse modification of designated critical habitat. As the Federal lead agency for this project, USACE has conducted a review of the California Natural Diversity Data Base, digital maps prepared by USFWS and NMFS depicting critical habitat, and other information provided by the applicant, to determine the presence or absence of such species and critical habitat in the project area. Based on this review, USACE has made a preliminary determination that the following Federally-listed species and designated critical habitat are present at the project location or in its vicinity, and may be affected by project implementation. NMFS species that were the subject of this consultation include the Southern Oregon/Northern

California threatened coho salmon (*Oncorhynchus kisutch*), California Coastal threatened Chinook salmon (*Oncorhynchus tshawytscha*), and Northern California threatened steelhead (*Oncorhynchus mykiss*) and Essential Fish Habitat (EFH) pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (50 CFR §600). Individuals are not expected to be present during construction due to the work windows proposed.

On March 9, 2010, USACE received a letter from NMFS that concurs with the USACE determination that the project may affect, but it not likely to adversely affect the aforementioned species because the majority of work will occur away from the wetted channel, work will be done in the dry season when no salmonids are likely to be present, no equipment will be operated directly within the channel of flowing streams, and the use of best management practices is expected to minimize sediment mobilization within the project action area. NMFS stated that the effects from this project are expected to be largely beneficial and increase the quantity and quality of winter rearing habitat. Because of the beneficial effects of the project are so great and the adverse effects so minimal, no EFH recommendations were necessary to avoid, minimize, mitigate, or otherwise offset the adverse effects to EFH.

The USACE also consulted with the USFWS regarding potential impacts to the federally listed endangered tidewater goby (*Eucylogobius newberryi*) and its designated critical habitat. Tidewater gobies have been documented in Jacoby creek. Suspended sediment from the project activity would occur in an active channel. If the channel were simultaneously occupied by tidewater gobies, the suspended sediment could temporarily inhibit respiration and alter their normal behavior. However, exclusionary fencing will be installed to prevent gobies from entering the project area.

On July 2, 2010 the USACE received a Biological Opinion from USFWS that issuance of a permit for the Project, as proposed, is not likely to jeopardize the continued existence of the tidewater goby and is not likely to adversely modify critical habitat, and issued an incidental take statement along with this Biological Opinion.

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. As the Federal lead agency for this undertaking, USACE has conducted a review of latest published version of the *National Register of Historic Places*, survey information on file with various city and county municipalities, and other information provided by the applicant, to determine the presence or absence of historic and archaeological resources within the permit area. Based on this review, 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. 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 submitted an analysis of project alternatives which is being reviewed by USACE.

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.

7. 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.

8. SUBMITTING COMMENTS: During the specified comment period, interested parties may submit written comments to Dominic MacCormack, San Francisco District, Regulatory Division, 1455 Market Street, 16th Floor, San Francisco, California 94103-1398; 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/>.