



**DEPARTMENT OF THE ARMY**  
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
450 GOLDEN GATE AVE.  
SAN FRANCISCO, CA 94102

**FINDING OF NO SIGNIFICANT IMPACT**  
**Pajaro River Flood Risk Management Project**  
**Monterey and Santa Cruz Counties, California**

The U.S. Army Corps of Engineers, San Francisco District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The final Integrated General Reevaluation Report and Environmental Assessment (GRR/EA) dated December 2019 for the Pajaro River Flood Risk Management Project addresses flood risk management opportunities and feasibility in the city of Watsonville and town of Pajaro. The final recommendation is contained in the report of the Director of Civil Works, dated 12 December 2019.

The Final GRR/EA, incorporated herein by reference, evaluated various alternatives that would reduce flood risk in the study area. The recommended plan is the National Economic Development (NED) Plan and includes the following measures to improve existing levees, construct new levees (including setback levees and a ring levee), and to construct floodwalls:

**Pajaro River Structural Features**

- 0.9 mile of floodwalls on existing levees
- 5.8 miles of new levees of which 5.10 miles is setback levees
- 0.3 mile of levee improved in place
- 66 acres of floodplain between setback levees and the river
- 5.10 miles of existing levee demolition
- Setback levee heights of 12 feet to 13 feet
- Floodwall height of 4 feet (floodwall elevation over the existing 8 foot high levee that will be improved in place)

**Corralitos Creek and Salsipuedes Creek Structural Features**

- 1 mile of floodwall
- 0.6 mile of floodwall on existing levee
- 4.1 miles of new levee of which 1.5 miles is setback levees
- 0.5 mile of existing levee improved in place
- 37.2 acres of floodplain between setback levee and creek
- 1.5 miles of existing levee demolition
- Two bridges raised
- Setback levees and floodwall heights 9 feet to 10 feet

In addition to a “no action” plan, 8 alternatives were evaluated in the environmental review, which included four mainstem and four tributary alternatives as follow:

**Mainstem Alternatives**

Alternative 1 - Alternative 9D Mainstem 100-foot Setback Levees and floodwall, plus Completion Levee in Right Bank Agricultural Area

Alternative 2 - Pajaro Ring Levee plus Protection to Urban Watsonville Area

Alternative 3 - Alternative 9D Mainstem 100-foot Setback Levees and Floodwall plus Optimized Channel Migration Zone in Right Bank Agricultural Area

Alternative 4 - Alternative 9D Mainstem 100-foot Setback Levees and floodwall, plus Locally Preferred Protection in Reach 4 Right Bank Agricultural Area

Tributary Alternatives

Alternative 5 - Variable 225-Foot Setback Levees and Orchard Park Ring Levee

Alternative 6 - Urban 100-Foot Setback and Orchard Park Ring Levee

Alternative 7 - Corralitos Creek Left Bank Levee

Alternative 8 - Orchard Park Ring Levee or Relocations along Corralitos Creek Left Bank

These alternatives are fully described in Chapter 3.2 of the Integrated GRR/EA, and their formulation is discussed in the Plan Formulation Appendix (Appendix A).

For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the recommended plan are listed in Table 1:

**Table 1: Summary of Potential Effects of the Recommended Plan**

	Less than significant effects	Less than significant effects as a result of mitigation*	Resource unaffected by action
Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Agriculture	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Aquatic resources/wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Climate change	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cultural resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Environmental justice	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Geomorphology	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Historic properties	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Floodplains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous, toxic & radioactive waste	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydrology	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Land use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Navigation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise and vibration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Public health and environmental hazards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Socio-economics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Threatened/Endangered species/critical habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Traffic and Circulation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Utilities and Public Services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vegetation and wildlife	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Mitigation for resources identified as having “Insignificant effects as a result of mitigation” areas is detailed for each resource as titled below in Chapter 4, and is summarized as follows:

- **Aesthetics** – As practicable and / or, feasible preserve existing native trees; locate staging areas on previously disturbed lands; restore staging areas to pre-construction topography; and hydroseed staging areas with native grasses and forbs.
- **Air Quality** – Incorporate use of tiered engines and California ultra-low sulfur diesel fuel; include diesel, diesel particulate matter emissions, optimal dust, and greenhouse gas control measures into contract specifications;
- **Aquatic Resources/Wetlands** – Controls for environmental hazards, water quality, vegetation and wildlife and special status species would ensure effects on aquatic resources would be less than significant. In addition, mitigation would include pre-construction surveys prior to in-channel construction. These surveys would assess drainage depressions, channels, and ditches at project site to determine if they provide water to wetlands; in which case the construction contractor would be required to maintain subject flows. These activities would be done in compliance with the Clean Water Act for Section 404 and 401, along with a delineation of the approximate limits of jurisdictional wetlands located within or immediately adjacent to the project's limits of construction.
- **Vegetation and Wildlife** – General construction and operations and maintenance best management practices would be implemented to manage food-related wastes, invasive species, dust impacts, confine travel/traffic, reseed disturbed areas, ensure fill is free of contaminants, and layout final plans that identify habitat areas to be protected and means of protection. Worker awareness training for all construction personnel would be conducted, and work would be scheduled outside the nesting season to the extent possible. Where work would occur in or adjacent to migratory bird habitat, pre-construction surveys for active nests would be conducted in areas scheduled for construction in a given year. Work around active nests would be avoided until the young have fledged; and if infeasible, a solution would be developed in coordination with United States Fish and Wildlife Service (USFWS). Surveys for also be conducted for Swainson's hawk, and appropriate best management practices (BMPs) would be implemented. Native plants outside the designated construction and O&M footprints would be fenced to avoid impacts to native trees, shrubs and aquatic vegetation. Any native trees or shrubs removed with a diameter of greater than 2 inches would be replaced and monitored for 5 years or until determined to be established and self-sustaining.
- **Special Status Species** – Controls for public health and environmental hazards and water quality would minimize impacts to special status species. Short-term habitat loss in new concrete floodwall channel would be mitigated by filling with sediments similar to natural stream bottom. During years when steelhead may be present, work will be avoided in or adjacent to the channel from January until June. Construction between January and June will be limited to areas away from the channel. Pre-construction surveys will be conducted prior to construction. Application of herbicides will be delayed during cool, wet years when steelhead may be present until after May to ensure no adult migrants are present in Project area. Herbicide use will also be managed during O&M activities.
- **Historic Properties** – Implement the Section 106 Programmatic Agreement (PA) signed July 16, 2019, in consultation with the California State Historic Preservation Officer and Native American tribes. The PA is included in Appendix J of the GRR/EA, and lays out steps in the Section 106 process, including surveys, inventory, evaluation of resource significance, finding of project effects and National Register of Historic Places eligibility, tribal consultation, and any avoidance, minimization or mitigation that may be required to resolve adverse effects to historic properties that would result from the project.

- **Hydrology, Hydraulics, Geomorphology** – Replace water supply wells removed from service. In Pre-construction, engineering, and design (PED) complete additional evaluations and design refinements to verify level of induced flooding and associated impacts and evaluate cost effective measures to avoid or reduce same.
- **Land Use** – Acquire property in manner consistent with all applicable laws and regulations, while minimizing relocation of people, homes or businesses and providing compensation under the Uniform Relocation Assistance and Real Property Acquisition Act.
- **Noise & Vibration** – Under construction noise plan coordinated with potentially affected public, apply BMPs to reduce noise and vibration from construction and reduce operational activity.
- **Socio-economics & Environmental Justice** – Effects of properties would be mitigated through appropriate compensation. If relocation of people or homes required, they would be compensated under the Uniform Relocation Assistance and Real Property Acquisition Act.
- **Recreation** – Advance notice to recreation users would be provided along with safety signs and appropriate detours.
- **Traffic & Circulation** – All roadway and bridge designs and engineering specifications will be submitted for review to appropriate jurisdictional agency to ensure designs do not decrease circulation in manner conflicting with respective agency plans and policies. Construction shall be coordinated, and advance notifications provided to tenants and owners of property within 300 feet of edge of construction footprint. Schools, businesses, emergency providers and Santa Cruz Metro will also be notified in advance. A Traffic Control Plan will be submitted to Caltrans, Santa Cruz and Monterey Counties and the city of Watsonville for approval and implementation. Advance notice will be provided for railroad companies, bicycle riders and pedestrians, and appropriate signage will be posted. Bicycle connectivity would be maintained during bridge raising, and effected bikeways and trails would be restored.
- **Water Quality** – BMPs for construction would be implemented under a spoil control plan, a SWPPP, a soil erosion, and a dewatering plan prepared with guidance from the Central Coast Regional Water Quality Control Board (Water Board). BMPs for herbicide would be implemented consistent with a management and restoration plan.
- **Utilities & Public Services** – Prior to initiating construction, the construction contractor will coordinate with the public and with public service providers to implement orderly relocation of utilities that need to be removed or relocated. Water supplies for wells removed from service would be replaced, and the work schedule and safety measures would be coordinated with schools and school districts.
- **Agriculture** – Acquire property in manner consistent with all applicable laws and regulations, including compensation at fair market value to landowners whose lands become part of the project.
- **Public Health & Environmental Hazards** – Implement standard BMPs for construction projects, and measures outlined in project Storm Water Pollution Prevention Plan (SWPPP), including notification of schools. An environmental specialist would be retained to characterize excavations.

### ***COMPENSATORY MITIGATION NOT REQUIRED***

No compensatory mitigation is required as part of the recommended plan, which is self-mitigating due to the use of setback levees with establishment of open woodland and savanna vegetation in the offset areas. This accomplishes what would be laid out and credited as ecosystem restoration if this was a multi-purpose project and is the reason resource agencies have generally supported this project as planned.

## **PUBLIC REVIEW**

Public review of the draft GRR/EA and finding of no significant impact (FONSI) was completed on 30 November 2017. All comments submitted during the public review period were responded to in the Final IFR/EA and FONSI.

## **OTHER ENVIRONMENTAL AND CULTURAL COMPLIANCE REQUIREMENTS:**

### **ENDANGERED SPECIES ACT**

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the USFWS issued a biological opinion, dated 24 February 2023, that determined that the recommended plan will not jeopardize the continued existence of the following federally listed species or adversely modify designated critical habitat: California reg-legged frog (*Rana aurora draytonii*). The recommended plan may affect, but is not likely to adversely affect the Least Bell's vireo (*Vireo bellii pusillus*), and Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). All terms and conditions, conservation measures, and reasonable and prudent alternatives and measures resulting from these consultations shall be implemented to minimize take of endangered species and avoid jeopardizing the species.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers determined that the recommended plan may affect, but is not likely to adversely affect the following federally listed species or their designated critical habitat: South Central California Coast steelhead (*Oncorhynchus mykiss*). The National Marine Fisheries Service (NMFS) concurred with the Corps' determination on 17 February 2023.

### **FISH AND WILDLIFE COORDINATION ACT**

As required by the Fish and Wildlife Coordination Act, the recommendations of the Secretary of the Interior, through the USFWS, have been sought throughout the planning process. USFWS provided a letter report, dated 29 September 2017, in lieu of a Coordination Act Report, for inclusion with the Draft GRR/EA (see Appendix E-2). The letter in part reads: "In accordance with and as stated in the Fish and Wildlife Coordination Act, the Service provides the following comments to ensure that 'wildlife conservation shall receive equal consideration and be coordinated with other features of water-resource development programs through the effectual and harmonious planning, development, maintenance, and coordination of wildlife conservation and rehabilitation..." USFWS letter report recommendations are enumerated, together with USACE responses, in Section 5.2.1 of the GRR/EA.

### **NATIONAL HISTORIC PRESERVATION ACT**

Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that historic properties may be adversely affected by the recommended plan. The Corps and the California State Historic Preservation Officer entered into a Programmatic Agreement, dated 8 July 2019. All terms and conditions resulting from the agreement shall be implemented to minimize adverse impacts to historic properties.

## ***CLEAN WATER ACT SECTION 404(B)(1) COMPLIANCE***

A 404(b)(1) evaluation is included in Appendix E of this final report. All the action alternatives would result in temporary loss of wetlands (riparian habitat). Each of the alternatives has been designed to minimize impacts on wetlands to the extent practicable. A jurisdictional wetland delineation was conducted in PED to determine the exact acreage of wetland impacts prior to construction. Not all reaches of the project will have these impacts in 404 jurisdiction. Where they do, the project is in compliance.

## ***CLEAN WATER ACT SECTION 401 COMPLIANCE***

In a letter dated 31 Oct 2017, USACE requested a letter of project support from the Water Board. In a letter, dated 11 Dec 2017, the Water Board provided comments on the draft report and expressed general support for reducing flood risk in the area. The Water Board requested additional information and analyses be completed prior to submitting a water quality certification package, and highlighted aspects of the project that should be refined to protect water quality and beneficial uses. If approved and funded, USACE will seek Section 401 water quality certification once final designs are developed and before initiating construction, where needed (See Appendix H).

## ***COASTAL ZONE MANAGEMENT ACT***

Under the California Coastal Act, the California Coastal Commission (CCC) has coastal development permit jurisdiction of the Pajaro River extending from the river's mouth to the Highway 1 Bridge at approximately River Mile 4. This reach is outside the construction footprint of all proposed action alternatives, but as a federal project may be subject to the Coastal Commission's federal consistency review procedures. Since 2003, the CCC has participated in various interagency meetings to help define technical concerns, methods, and measures for consideration. Based on this, the CCC provided a letter of comment, dated 30 November 2017, on the Draft GRR/EA (see Appendix H). Mitigation measures have been incorporated into the project to avoid adverse downstream effects, mainly on water quality. If the project is approved and funded, coordination with the CCC will continue in PED and a consistency determination will be sought, as appropriate.

## ***OTHER SIGNIFICANT ENVIRONMENTAL COMPLIANCE:***

All applicable environmental laws have been considered and coordination with appropriate agencies and officials has been accomplished. Other acts addressed in Chapter 5 of the GRR/EA include the Farmland Protection Policy Act, the Magnuson-Stevens Fishery Conservation and Management Act, the Migratory Bird Treaty Act, EO 11988 – Floodplain Management, EO 12893 – Environmental Justice, EO 13112 – Invasive Species, EO 13751 – Safeguarding the Nation from the Impacts of Invasive Species, and Williamson Act Lands. The proposed project would not occur within designated Essential Fish Habitat (EFH); although EFH has been designated downstream of the project area for groundfish, market squid and finfish. The project would have no direct effects on EFH, and indirect effects associated with changes in water quality would be less than significant with implementation of mitigation measures and best management practices, which along with detailed designs would be coordinated with respective agencies as they are developed.

**FINDING**

Technical, environmental, and economic criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other federal, state, and local agencies, tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an environmental impact statement is not required.

3 October 2023  
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Date

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Timothy W. Shebesta  
Lieutenant Colonel, U.S. Army  
District Commander and Engineer