

# RECLAMATION

*Managing Water in the West*

Draft FINDING OF NO SIGNIFICANT IMPACT

## **San Andreas and Staten Island Salinity Stations Refurbishments**

FONSI-12-027



## **Mission Statements**

The mission of the Department of the Interior is to protect and manage the Nation's natural resources and cultural heritage; provide scientific and other information about those resources; and honor its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

**BUREAU OF RECLAMATION**  
**South-Central California Area Office, Fresno, California**

**FONSI-12-027**

**Title**

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# Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act of 1969, as amended, the South-Central California Area Office of the Bureau of Reclamation (Reclamation), has determined that replacing the San Andreas and Staten Island Salinity Stations with better quality materials to withstand deterioration is not a major federal action that will significantly affect the quality of the human environment and an environmental impact statement is not required. This Finding of No Significant Impact (FONSI) is supported by Reclamation's Environmental Assessment (EA) Number EA-12-027, *San Andreas and Staten Island Salinity Stations Refurbishments*, and is hereby incorporated by reference.

## Background

In February 1961, the State Water Resources Control Board adopted Water Right Decision 990, which approved water rights for the Central Valley Project (CVP). This led to the development of water quality standards for the Sacramento-San Joaquin Delta (Delta) with the adoption of agricultural salinity standards as terms and conditions of Water Right Decision 1275 in May 1967. Ultimately, these and other Decisions (including Water Rights Decision 1641), led to the development of a series of 24 Compliance Monitoring Sites in the Delta which are jointly operated and maintained by the Bureau of Reclamation (Reclamation) and the California Department of Water Resources.

Water Rights Decision 1641, issued by the State Water Resources Control Board on December 29, 1999, and amended March 15, 2000, amended Reclamation's water rights permits to add items and conditions that are intended to protect municipal and industrial, agricultural, and fish and wildlife beneficial uses of the Delta. The CVP and the State Water Project (SWP), operated by the State of California Department of Water Resources, are operated in coordination to meet the terms in Water Rights Decision 1641 relevant to each project.

Operating these projects to meet specific numerical criteria at specific locations in the Delta is complicated as the Delta is a dynamic environment affected by natural forces such as tides, wind, and floods. Reservoir releases in the Sacramento River basin to support Delta water quality take one to five days to reach the Delta. Water Rights Decision 1641 contains flow and water quality objectives that must be measured at various compliance monitoring stations located throughout the Delta. Continual monitoring of Delta conditions at these stations and forecasting of future conditions are essential for assuring the daily decisions regarding reservoir releases and amounts pumped from the Delta will meet the water quality objectives of the Delta.

There are two monitoring stations within the Delta interior that measure salinity, one is San Andreas Salinity Station, originally built in the 1960s, and is located along the San Joaquin River in Sacramento County. The other is Staten Island Salinity Station, originally built in 1985, and is

located along the Mokelumne River in San Joaquin County. Both stations contain water quality monitoring and telemetry equipment that are in need of refurbishment.

## Proposed Action

Reclamation proposes to replace the San Andreas and Staten Island Salinity Stations with better quality materials to withstand deterioration. A private construction team hired by Reclamation would be brought in to demolish the current stations and rebuild new stations within the same location. Principal components of the work would include:

- Demolition and disposal of the two existing water quality monitoring stations, including, but not limited to, the following:
  - Existing wood bridges, including bridge decks and all structural components.
  - Existing piles (5 for San Andreas and 8 for Staten Island).
  - Existing monitoring station buildings.
  - Portions of existing conduit.
  - Existing equipment and appurtenances inside of the existing buildings.
- Installation of new water quality monitoring stations, including the following:
  - New weathering steel (Cor-Ten™ steel or equal) bridges, including new bridge decks and all necessary structural components.
  - Connections and structural components required to secure the bridges to the piles.
  - New bridge abutments necessary to support the bridges.
  - New stainless steel pipe guardrails or cable safety rails for the bridges.
  - New (12" diameter) piles with pile caps and bracing (4 for San Andreas and 6 for Staten Island).
  - New monitoring station buildings, including all hardware and structural components.
  - Connections and structural components required to secure the monitoring station buildings to the piles.
  - New building equipment and appurtenances, including doors, door locks, screens, hooded vents, baffles, and associated hardware.
  - New electrical components including conduit, conductors, pull boxes, panelboards, power outlets, luminaires, thermostats, fans, switches, breaker switches, marine warning lights, and all hardware required to complete the electrical systems.

Piles for each station would be driven a minimum penetration of 20 feet into the subgrade and until bearing resistance reaches 15 tons. There would be no excavation or other disturbance to the bottom of the channel.

Construction materials that would be required to complete the reconstruction of the stations include steel piles, aluminum walkways, metal salinity building and concrete. Equipment required for each station replacement would include a barge, barge crane, vibratory pile driver, truck crane, haul truck and pick-up trucks. Backfill in excavated areas located outside the waterways would be used to restore the ground elevation to its original grade.

The Proposed Action is anticipated to require up to two weeks for each Salinity Station. All construction in the water courses would take place between August and November.

### **Environmental Commitments**

Reclamation or its contractor(s) shall implement the environmental protection measures listed in Table 1 of EA-12-027 to reduce environmental consequences associated with the Proposed Action. Environmental consequences for resource areas assume the measures specified would be fully implemented.

## **Findings**

Reclamation's finding that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

### **Resources Eliminated from Detailed Analysis**

As described in Table 2 of EA-12-027, Reclamation analyzed the affected environment and determined that the Proposed Action does not have the potential to cause direct, indirect, or cumulative adverse effects to the following resources: Cultural Resources, environmental justice, Indian Sacred Sites, Indian Trust Assets, or land use.

### **Water Resources**

Reclamation proposes to reconstruct the San Andreas and Staten Island Salinity Stations. The majority of construction associated with the Proposed Action would be over water, and would include removing wooden piles and driving in new steel piles into the sediment. Erosion and debris associated with demolition and construction may enter the water. Sediment and debris entering the rivers systems could temporarily increase the turbidity of the water.

The Proposed Action would not result in substantial impacts to water resources because Reclamation and the contractor would conduct the work in a manner to best avoid disturbances to soils or sediment by implementing best management practices. All construction activities would be short in duration, and no obstructions for navigation would occur because the construction activities allow room for vessels to pass.

### **Biological Resources**

Project construction would occur primarily in or over the waterway, with limited work occurring on land. Consequently, listed fish species have the greatest potential to occur in the Proposed Action area.

The primary effects from removing piles is the increased turbidity from temporary suspension of sediments, which may result in the temporary loss of suitable refugia for the species in the area and potentially expose individuals temporarily to higher temperatures. Vibratory pile removal tends to cause the sediments to slough off at the mudline, resulting in relatively low levels of suspended sediments. Because piles occupy a small area of substrate that is often rearranged by river currents, any increase in turbidity will be small and short-term. Reclamation has

determined that sediment suspension are likely low enough in concentration and short enough in duration to avoid effects on fish health, foraging, or migration.

Each Salinity Station would require the installation of steel piles. Installation of the steel piles would require in-water pile driving that could produce high-intensity sound and has the potential to harm or harass fish and the ecological functioning of essential fish habitat (EFH). Steel piles would take less than an hour to be driven using the vibratory drill at each station and would occur during the dry and warmer months, when most species have already migrated up to their spawning grounds.

Environmental protective measures have been incorporated into the Proposed Action in order to avoid and or minimize potential impacts to federally listed species and their habitat, including EFH. The in-water work window of August through November is designed to allow a reasonable construction period while avoiding and or minimizing impacts to peak migrations of listed anadromous fish and access to their designated critical habitat. Also, the piles would be installed using a vibratory pile driver during daylight hours to avoid nocturnal migratory behavior of salmonids and reduce underwater noise levels. In addition, installation of steel piles would occur during the dry and warmer months, when most species have already migrated up to their spawning grounds.

### **Air Quality**

The Proposed Action involves temporary earthmoving and minor appurtenance improvements in the Sacramento Valley and San Joaquin Valley area. The air quality impacts of the Proposed Action would primarily be construction-related emissions that are temporary and short-term in nature.

The Sacramento Valley Air Basin and the San Joaquin Valley Air Basin have established screening thresholds to determine whether a proposed project has a potential to exceed their air quality standards. Construction under the Proposed Action would result in the temporary generation of reactive organic gases, nitrogen oxides, inhalable particulate matter between 2.5 and 10 microns in diameter and particulate matter less than 2.5 microns in diameter, and carbon monoxide emissions. Estimated construction emissions would be below established thresholds of significance.

The Proposed Action would not impact the air district's plans to achieve or maintain attainment for various air quality pollutants. As such, there would be no adverse air quality impacts associated with this Proposed Action and a conformity analysis pursuant to the Clean Air Act is not required.

### **Global Climate Change**

Greenhouse gas emissions would be temporary and occur during construction. Estimated greenhouse gas emissions due to the proposed action are 623 metric tons per year, which is less than the greenhouse gas emissions reporting requirements for stationary facilities. There are no reporting requirements for emissions during construction.



**Cumulative Impacts**

Cumulative impacts result from incremental impacts of the Proposed Action or No Action alternative when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. To determine whether cumulatively significant impacts are anticipated from the Proposed Action or the No Action alternative, the incremental effect of both alternatives were examined together with impacts from past, present, and reasonably foreseeable future actions in the same geographic area.

**Water Resources**

This action has no potential to adversely affect surface water resources, therefore there are no cumulative effects associated with this project.

**Biological Resources**

Numerous activities continue to impact habitat for listed and proposed threatened and endangered species in the Delta. Habitat loss and degradation affecting both animals and plants continue as a result of urbanization, road and utility right-of-way management, flood control projects, climate change, grazing by livestock, and agricultural practices. Listed and proposed animal species are also affected by poisoning, increased predation associated with human development, and reduction of food sources. All of these nonfederal activities are expected to continue to adversely affect listed and proposed species in Delta. The Proposed Action would temporarily disturb essential fish habitat during construction activities. This habitat would be returned to their preexisting condition once construction is complete. Conservation measures would be implemented to minimize potential cumulative impacts.

**Air Quality**

The Proposed Action would not contribute to an exceedance of applicable air quality standards and thresholds via emissions. The emissions would be temporary and would not substantially contribute to a cumulative impact within the Sacramento Valley Air Basin and the San Joaquin Valley Air Basin.

**Global Climate Change**

Greenhouse gases emissions generated by the Proposed Action are expected to be extremely small. While any increase in greenhouse gases emissions would add to the global inventory of gases that would contribute to global climate change, the Proposed Action would result in potentially minimal to no increases in greenhouse gases emissions and a net increase in greenhouse gases emissions among the pool of greenhouse gases would not be detectable.