

Appendix D

Concurrence Letter from the National Marine Fisheries Service



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
650 Capitol Mall, Suite 5-100
Sacramento, California 95814-4700

MAR 24 2016

Refer to NMFS No: WCR-2016-4359

Dr. Jennifer Lewis
Wildlife Biologist
United States Bureau of Reclamation
South-Central California Area Office
1234 N Street
Fresno, California 93721-1813

Re: Endangered Species Act Section 7(a)(2) Letter of Concurrence and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the San Andreas and Staten Island Salinity Stations Refurbishments Project, Sacramento and San Joaquin County.

Dear Dr. Lewis:

On January 25, 2016, NOAA's National Marine Fisheries Service (NMFS) received your request for a written concurrence that the proposed San Andreas and Staten Island Salinity Stations Refurbishments Project (hereafter, Project) is not likely to adversely affect (NLAA) species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). The refurbishment of the existing salinity stations are essential to continued monitoring of the Delta salinity conditions and forecasting of future conditions to inform real-time reservoir releases and opening of the Delta Cross Channel to meet water quality objectives of the Delta. The United States Army Corp of Engineers (USACE) has the authority to issue a dredge and fill permit under Section 404 of the Clean Water Act (CWA). In a letter address to Reclamation from USACE, received by NMFS on March, 9, 2016, USACE designated Reclamation as the lead Federal agency on its behalf for the purpose of compliance with Section 7 of the ESA. This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including conservation measures and any determination you made regarding the potential effects of the action. This review was pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation. Pacific salmon have the potential to be present in the Action Area and are managed under the Pacific Coast Salmon Fisheries Management Program (FMP). Habitat areas



of particular concern (HAPCs) that are present in the Action Area, include complex channels and estuarine habitat. In this case, NMFS concluded that the action would not adversely affect EFH. Thus, consultation under the MSA is not required for this action. This is based on the following evaluation of project effects to ESA-listed species and their critical habitat.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The concurrence letter will be available through NMFS' Public Consultation Tracking System (<https://pcts.nmfs.noaa.gov/ptcs-web/homepage.pcts>)¹. A complete record of this consultation is on file at NMFS' California Central Valley Area Office.

Proposed Action and Action Area

Reclamation proposes to replace the San Andreas and Staten Island Salinity Stations with better quality materials to withstand deterioration. The purpose of the Project is to replace the existing stations with higher grade materials to provide a safe working environment for employees who monitor real-time water quality and telemetry equipment. The Project is located on the north side of the San Joaquin River in Sacramento County, California (San Andreas Salinity Station), and the south fork Mokelumne River in San Joaquin County, California (State Island Salinity Station), within the Sacramento-San Joaquin River Delta. Reclamation will demolish the existing stations and rebuild new stations at the same location. The primary components of the Project include:

- Demolition and disposal of the existing salinity stations including, but not limited to:
 - Removal of existing wood bridges, including bridge decks and all structural components.
 - Removal of 12" diameter creosote-treated wood pilings (five for San Andreas and eight for Staten Island Salinity Station).
 - Removal of existing station buildings and portions of conduit.
 - Removal of equipment and appurtenances inside of the existing building.
- Construct new water quality monitoring stations, including the following:
 - Construct two new steel (Cor-TenTM steel) bridges, including new bridge decks and all necessary structural components.
 - Properly connect and construct structural components required to secure the bridge to the steel pipe pilings.
 - Install new bridge abutments necessary to support the bridges.
 - Install stainless steel pipe guardrails or cable safety rails for the bridges.
 - Install (12" diameter) steel piles with pile caps and bracing (four for San Andreas and six for Staten Island).
 - Install new monitoring stations, which include all hardware and structural components.
 - Install a marine gate on bridge for security and restricted access to stations.

- Install a marine gate on bridge for security and restricted access to stations.
- Properly connect and construct structural components required to secure the monitoring stations to the piles.
- Install electrical components, which include conduit, conductors, pull boxes, panelboards, power outlets, luminaires, thermostats, fans, switches, breaker switches, marine warning lights, and all hardware required to complete electrical systems.

Materials required to complete the reconstruction of the stations include steel pipe piles, aluminum walkways, metal salinity buildings, and concrete. Equipment required for each station replacement include a barge with crane, vibratory pile driver, truck crane, haul truck, and pick-up trucks.

Pile driving would be conducted with a vibratory driver to a minimum depth of 20 feet into a subgrade until bearing resistance reaches 15 tons. Pile driving is anticipated to occur from a barge. A vibratory driver would be used to drive 12" diameter steel pipe pilings to the approximate final design depth. It is estimated that vibratory extraction of the existing wood piles would take less than 10 minutes per pile, and approximately 15 minutes to install (vibratory) 20 feet (4 piles for San Andreas and six piles for Staten Island). The result is 100 and 150 minutes of pile driving and underwater noise generation for San Andreas and Staten Island Salinity Stations, respectively.

Backfill from excavated areas located outside the waterways will be used to restore the ground elevations to its original grade. There will be no excavation or other disturbance to the sediment bed. The Project is anticipated to require up to 2 weeks from demolition to construction for each station. In-water construction would be implemented at low-tide between August 1 and November 30, 2016, inclusive.

The San Andreas Salinity Station was built in the 1960s and is located along the San Joaquin River in Sacramento County. The Staten Island Salinity Station was built 1985 and is located along the Mokelumne River in San Joaquin County. The proposed Project area (~ 400 square feet) includes ~200 feet for the San Andreas Salinity Station, located in Section 13, Township 30 North, Range 30 East (Latitude 38.10346°, Longitude -121.592083°), and ~200 square feet for the Staten Island Salinity Station (located in Section 11, Township 30 North, Range 40 East (Latitude 38.115536°, Longitude -121.497178°).

The action area includes both terrestrial and aquatic features within a radial distance of 300 feet from each station. Reclamation established the radial distance based on the upstream and downstream extent of anticipated hydroacoustic effects from pile driving, and the downstream extent of anticipated effects related to sediment and turbidity. The action area contains waterways where Sacramento River winter-run Chinook salmon, CV spring-run Chinook salmon, CCV steelhead, and the sDPS of North American green sturgeon may be present. The three listed salmonids have the greatest potential to occur in the action area primarily from November to June, based on the timing of adult and juvenile migrations in and through Sacramento-San Joaquin River Delta. Green sturgeon presence is presumed to be year-round within the action area.

The action area includes waters that have been designated as critical habitat for Sacramento River winter-run Chinook salmon, CV spring-run Chinook salmon, CCV steelhead, and the sDPS of North American green sturgeon. The essential features of critical habitat in the action area for the listed salmonid species include areas of emigration, rearing, and/or smoltification of juveniles and immigration of adult salmon and steelhead. The essential features of critical habitat in the action area for green sturgeon include two categories: (1) freshwater riverine systems (food resources, substrate type and size, water flow, migratory corridor, water quality and depth); and (2) food resources, water quality, and sediment quality. The essential features attributes of prey availability, primary productivity, shelter availability, and water quality are the primary assessment endpoints addressed when evaluating the effects of the proposed actions on the designated critical habitat. Information evaluated for effects to prey, primary production, or shelter includes survival, growth, reproduction, or abundance of prey, (*e.g.*, macroinvertebrates), phytoplankton, and macrophytes.

There are no interrelated or interdependent actions associated with the proposed action.

Action Agency's Effects Determination

Reclamation determined that the proposed San Andreas and Staten Island Salinity Stations Refurbishments Project is not likely to adversely affect (NLAA) federally listed endangered Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*), threatened Central Valley (CV) spring-run Chinook salmon (*O. tshawytscha*), threatened California CV (CCV) steelhead (*O. mykiss*), or threatened Southern distinct population segment (sDPS) of North American green sturgeon (*Acipenser medirostris*), or any of their respective designated critical habitats (Table 1).

Status of the Species and Critical Habitat within the Action Area

Table 1. Listed species status and critical habitat designation

Listed Species	Scientific Name	Status	FR Notices
CV Spring-run Chinook salmon	<i>Oncorhynchus tshawytscha</i>	Threatened	†76 FR 157, August 15, 2011 ‡70 FR 52488, September 2, 2005
Sacramento River winter-run Chinook salmon	<i>O. tshawytscha</i>	Endangered	†70 FR 37160, June 28, 2005 ‡58 FR 33212, June 16, 1993
California CV steelhead	<i>O. mykiss</i>	Threatened	†76 FR 157, August 15, 2011 ‡70 FR 52488, September 2, 2005
sDPS of North American green sturgeon	<i>Acipenser medirostris</i>	Threatened	†71 FR 17757, April 7, 2006 ‡74 FR 52300, October 9, 2009

†species listing

‡critical habitat designation

In addition, Reclamation determined that the proposed action may adversely affect EFH for Pacific salmon, and requested consultation pursuant to MSA. Reclamation determined that the effects from the proposed Project on EFH would likely be associated with temporary increases in turbidity, underwater pressure and sound waves during installation of the steel pipe piles.

Therefore, Reclamation requested consultation with NMFS' on the effects determination, and request NMFS provide conservation and enhancement recommendations for incorporation into the project.

Consultation History

On January 29, 2016, NMFS received from Reclamation a written request for initiation of informal section 7 consultation under the ESA for the San Andreas and Staten Island Salinity Stations Refurbishment Project. NMFS also received the San Andreas and Staten Island Salinity Stations Refurbishments Project biological evaluation (BE).

On February 23, 2016, NMFS spoke with Reclamation by telephone and followed up with an email request for additional information on the use of a vibratory hammer to install steel pipe pilings. NMFS also request that Reclamation include two additional avoidance and minimization measures which include: (1) the extraction of wood piles during low tide, and (2) the use of silt curtains to minimize sedimentation, turbidity and exposure to contaminants such as creosote. Reclamation does not anticipate that the piles would be driven through any high impact gravels layers.

On February 29, 2016, Reclamation responded to NMFS's February 23, 2016, request and confirmed that the following avoidance and minimization measures would be incorporated into the proposed Project: (1) the extraction of wooden piles would occur during low tide, and (2) silt curtains would be placed around wooden piles to minimize exposure to turbid water and contaminants (*e.g.* creosote) released from sediment during the extraction process. On February 29, 2015, NMFS received sufficient information to initiate section 7 consultation.

On March 2, NMFS sent an email request to Reclamation for additional information on the conservation measures that would be implemented for Stormwater Pollution and Prevention Control for the proposed project.

On March 3, NMFS responded to Reclamation's request for Stormwater Pollution and Prevention Control by providing a list of appropriate conservation measures for the proposed project. On March 3, 2016 NMFS sent an email request to USACE requesting confirmation on the federal lead action agency for the proposed project.

On March 9, 2016, NMFS received a letter from USACE addressed to Reclamation that designated Reclamation as the lead Federal agency on its behalf for the purpose of compliance with Section 7 of the ESA.

On March 11, 2016, NMFS received from Reclamation a supplement to the BE which included incorporate of the avoidance and minimization measures recommended by NMFS on March 3, 2016 into the project description.

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, “effects of the action” means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is not likely to adversely affect listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur.

NMFS has received all the information necessary to initiate consultation on federally listed anadromous fish species and their designated critical habitats within the action area. The potential effects of the proposed action are discussed below.

Effects from Pile Removal Activities

The removal of old creosote wood pilings could result in temporary suspension of sediments into the water column, which may result in increased turbidity and release of contaminants into the water column. Indirect impacts on listed fish in the action area could occur through gill damage and reduced capacity to take in oxygen. These impacts could cause reduced fitness as a result of decreased dissolved oxygen (DO) intake ability, increased metabolic costs associated with reduced DO intake ability, and reduced foraging ability due to visibility.

In treated wood products, the main active ingredients of concern for effects to fishery resources are copper in metal treated wood products, and polycyclic aromatic hydrocarbons (PAHs) in creosote treated wood (National Marine Fisheries Service 2009). The removal of 13 creosote-treated wooden piles and two wooden bridge structures from the Project area are beneficial to listed species and critical habitat, as well as other aquatic organisms. PAHs are released from wood treated with creosote and are known to cause cancer, reproductive anomalies, and immune dysfunction; to impair growth and development; and to cause other impairments in fish exposed to sufficiently high concentrations over periods of time (Karrow *et al.* 1999, Johnson 2000, Collier *et al.* 2002, Sherry *et al.* 2005, Stratus 2006). Creosote treated wood in aquatic environments has been shown to leach contaminants into surrounding waters, and have negative effects on listed species such as altered immune function in *O. mykiss* exposed to creosote (Karrow *et al.* 1999). The main exposure scenario of concern for PAHs, including those leached from creosote treated wood, occurs as they accumulate in sediments and are assimilated into the food web. The potential effects for salmonids, in particular juvenile Chinook salmon (*O. tshawytscha*), if exposed could include altered growth and cause related physiological responses from dietary exposure, which may lead to increased mortality for individuals during the juvenile life stage (Meador *et al.* 2006).

In addition, exposure from over-water use of treated wood products on wooden bridges are also a potential source that could contribute to contamination. Significant quantities of treated wood products are used in above-water structures and decking (WWPI 2006). Treated wood structures placed in or over flowing waters will leach copper and a variety of other toxic compounds directly into the stream (Weis & Weis 1992, NMFS 2003). These structures can be sources of copper to waterbodies from leaching during rain storms or washing, splashing, from abrasion caused by foot or vehicle traffic, or release of sawdust or other wastes during construction or maintenance procedures. Creosote-treated products can release PAHs from these same mechanisms and from exposure to the sun. However, the potential effects for listed fish and their designated critical habitat would be discountable based on the following information and mitigation measures:

- Sediment disturbance and turbidity within 300 feet of the wood pilings would be minimal and contained to a small footprint for wood pile extraction and steel pipe pile installation (*e.g.*, disturbance of 300-foot radius). A silt curtain will be used during wood pile extraction to minimize the release of sediment and contaminants into the overlying water column and exposure to listed species. Sedimentation and turbidity would also be minimized by implementation of construction best management practices (BMPs) and a Stormwater Pollution Prevention Plan:
 - a. Silt sediment curtains would be around the wooden piles to minimize exposure to turbid waters and contaminants (*e.g.*, creosote) release from sediment during the extraction process.
- Pile removal activities (*i.e.*, soil disturbance activities) will take place within the work window of August 1 through November 30. This period is designated as time when salmon and steelhead are least vulnerable to in-water activities.
- Extraction activities will occur during low tide to minimize the effects to food resources, water flow or sediment quality. Therefore, effects to sDPS green sturgeon are discountable.
- Removal of each to the 13 creosote treated wooden piles would be conducted using a vibratory driver; and each piling would be removed in one piece. Each piling would be disposed of in an appropriate upland disposal site to receive hazardous materials. If pilings break during extraction, attempts would be made to remove the broken off section from the channel bottom. If the broken off section cannot be removed in its entirety, the piling would be cut off below the mud line and the hole cover with clean sand and fill.

The negative effects of increased sedimentation on listed fish species as a result of the proposed Project are discountable due to the localized in-water work, use of vibratory pile driver, and deployment of silt curtains to minimize exposure.

Effects from Construction Activities

The effects of the proposed Project are reasonably likely to include temporary and localized increases in hydroacoustic noise, turbidity, and suspended sediment, which may increase the potential risk of exposure to contaminants associated with construction, increased susceptibility to predation, and/or reduce prey availability. Activities associated with excavation, grading,

building construction, and construction equipment staging and operation activities will temporarily increase turbidity and likely have temporary sedimentary effects to designated critical habitat in the Action area. In particular, pile and bridge installation, and sediment mobilization could temporarily affect rearing habitat, food resources, water quality and sediment quality. Installation of steel pilings on the stream bank and streambed bottom using a vibratory hammer could have effects to fish within the 300 radial feet within the action area. Underwater sound monitoring would be conducted during the pile driving activities. Short-term exposure to peak sound pressure levels (SPL) above 190 decibels² (dB) have been shown to cause physical harm to fish (Hastings and Popper 2005). For the proposed Project, under water sound levels for a 12" steel pipe pile would not exceed sound peak levels of 171 dB³ or an accumulated sound exposure levels (SEL) of 187 dB (threshold for fish for the onset of physical injury greater than or equal to 2 grams) within 30 feet of the noise source (CalTrans 2015). The proposed Project would produce sound pressure levels below the interim criteria for injury to fish, defined as a cumulative sound exposure level (SEL_{cum}) of 210 dB (Halvorsen *et al.* 2012); however, continuous sound pressure levels would exceed 150 dB_{RMS}⁴ threshold that has the potential to produce a behavioral response from fish within 10 meters or 300 feet of the from the noise source (NMFS, 2009).

All in-water construction and disturbance would be between August 1 and November 30, 2016. Juvenile green sturgeon are assumed to be present in the Delta year-round, however considering the current condition of the habitat within the Project area, including the high frequency of various disturbances within the surrounding Project area, the potential for juvenile green sturgeon to be present within the action area during in-water construction is expected to be low. Therefore, the potential for in-water construction and disturbance effects on juvenile green sturgeon are discountable.

The short-term and long-term stormwater management for construction activities is important in reducing impacts of stormwater runoff into the aquatic environment. The proposed Project will include a National Pollutant Discharge Permit Elimination System (NPDES) general permit. In accordance with this permit, Reclamation will implement BMPs (*i.e.*, site-specific erosion control, spill-prevention, and control of sedimentation and runoff measures as part of the Stormwater Pollution and Prevention Plan (SWPPP). BMPs for the proposed Project include the minimization measures outlined in the supplement to the BE.

The effects from stormwater runoff are expected to be insignificant based on: (1) the implementation of BMPs to reduce impacts from stormwater runoff during the construction phase; (2) the surrounding waterways within the proposed Project area, where stormwater runoff would discharge into, is estimated to not further degrade existing water ways, and thus listed species and their designated critical habitat.

In summary, Reclamation proposes to minimize impacts by adhering to the minimization measures listed above related to the extraction, installation, and construction activities, and

² All underwater sound levels referenced in this document are in dB referenced to 1 micro Pascal (1 μ Pa).

³ NMFS requires use of the NMFS Pile Driving Calculator to assess the potential impacts of pile driving. The NMFS excel spreadsheet requires the use of data from driving similar piles in similar substrate. The appendix of the Hydroacoustic Guidance Manual includes a Compendium of past hydroacoustic projects, for this purpose.

⁴ Root mean square (RMS).

measures to control Project-related hydroacoustic impacts, sediment, and contaminant pollution. Adverse physiological and behavioral effects to salmonids and green sturgeon are discountable because of the unlikely potential for them to be exposed to harmful sound pressure levels, turbidity levels, and contaminants during the Project. In addition, listed salmonids are least likely to be present in the action area during the limited duration of the in-water work activities. Although green sturgeon are presumed present year-round, considering the current condition of the habitat within the action area, the potential for green sturgeon to be present is expected to be low. A vibratory driver will be used to minimize the potential hydroacoustic impacts to the listed species and their designated critical habitats. Given the beneficial effects of removing the 13 creosote-treated wooden pilings and adherence to BMPs that control for erosion, turbidity, noise, and contaminants, effects to critical habitat from short-term exposure are expected to be insignificant.

Conclusion

Based on this analysis, NMFS concurs with Reclamation that the proposed action is not likely to adversely affect the subject listed species and designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by Reclamation or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or if (3) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA portion of this consultation.

FISH AND WILDLIFE COORDINATION ACT

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development (16 U.S.C. 661). The FWCA establishes a consultation requirement for Federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, include navigation and drainage (16 U.S.C. 662(a)). Consistent with this consultation requirement, NMFS provides recommendations and comments to Federal action agencies for the purpose of conserving fish and wildlife resources. The FWCA allows the opportunity to offer recommendations for the conservation of species and habitats beyond those currently managed under the ESA and MSA. However, because the proposed Project is designed to avoid environmental impacts to aquatic habitat within the action area, NMFS has no additional FWCA comments to provide. This concludes the FWCA portion of this consultation.

ESA SECTION 7(a)(1) CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. Reclamation also has the same responsibilities, and informal consultation offers action agencies an opportunity to address their conservation responsibilities under section 7(a)(1). NMFS offers Reclamation the following conservation recommendation:

- Reclamation should continue to work with the State Water Quality Resource Control Board to continue monitoring in the San Joaquin River and Mokelumne River to ensure that the water quality criteria established by the Central Valley Water Quality Control Plan (Basin Plan) are met for all pollutants. Long-term water quality monitoring of Delta salinity conditions would inform real-time management to meet water quality objectives of the Delta.

NMFS request that your office inform us if any conservation recommendations will be implemented. We make this request in order to foster greater communication with action agencies and to monitor the effectiveness of our letters.

Please direct questions regarding this letter to Dr. Melanie Okoro, California Central Valley Office, at (916) 930-3728, or via email at Melanie.Okoro@noaa.gov.

Sincerely,



WWS William W. Stelle, Jr.
Regional Administrator

cc: Copy to Chron File - ARN 151422-WCR2016-SA00221

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REFERENCES

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http://www.wwpinstitute.org/mainpages/documents/AquaticGuide_August06_001.pdf

Appendix E

Cultural Resources Determination

Healer, Rain L

Sent:
To:
Subject:

Project No. 12-SCAO-054
EA-12-027

Rain:

The proposed undertaking for Reclamation to completely replace the two salinity stations (San Andreas and Staten Island Salinity Monitoring stations) with upgraded materials has no potential to cause effects to historic properties pursuant to the Section 106 implementing regulations at 36 CFR Part 800.3(a)(1).

Reclamation proposes to replace the Station with better quality materials to withstand deterioration. A private construction team hired by Reclamation would be brought in to demolish the current station and rebuild a new station. The San Andreas Salinity Monitoring Station is located along the San Joaquin River in Sacramento County and the Staten Island Salinity Monitoring Station is located along the Mokelumne River in San Joaquin County.

The existing San Andreas Salinity Station consists of seven 12-inch diameter wooden piles, a 50' long x 3' wide wooden walkway, and a 6'W x 6'L x 8'H wooden building. The existing Staten Island Salinity Station consists of eight 12-inch diameter wooden piles, a 140' long x 3' wide wooden walkway, and a 6'W x 6'L x 8'H wooden building. All supports and guard railing related to both structures would be removed. The contractor would then reconstruct the stations with the centerline of the new facility following the existing facilities centerline and elevation, although the newly constructed Staten Island Salinity Station would be elevated 7.5' above the level of the current station.

The new San Andreas Salinity Station would consist of the following: seven 12" diameter steel pilings, a new 8'W x 10'L x 8'H prefabricated cargo container for the building (approximately 2,500 pounds), and a new 40'L x 3'W aluminum walkway with guardrails (approximately 1,600 pounds). The new Staten Island Salinity Station would consist of the following: eight 12" diameter steel pilings, a new 8'W x 10'L x 8'H prefabricated cargo container for the building (approximately 2,500 pounds), and two new parallel 40'L x 3'W aluminum walkways with guardrails (approximately 1,600 pounds). Piles for each station would be driven to a minimum penetration of 10 feet into the bottom of the channel with varying depths depending on where the pile received proper pressure resistance for stability. There would be no excavation or 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, pile driver, truck crane, haul truck and pick-up trucks. No explosives of any kind would be used on the jobsite.

In February 1961, the SWRCB adopted Water Right Decision 990, which approved water rights for the CVP. This led to the development of water quality standards for the 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, led to the development of a series of 23 Salinity Monitoring Sites in the Delta which are operated and maintained by Reclamation. The actual construction date for this structure is unclear; however, it can be assumed the San Andreas Salinity Monitoring Station was built post 1967 and less than 50 years old. The Staten Island Salinity Monitoring Station, originally built in 1985 and is also less than 50 years old.

This email memo is intended to convey the conclusion of the Section 106 process for this undertaking. Please retain a copy of this memo with the administrative file. Thank you for providing the opportunity to comment on this action.

Sincerely,

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