APPENDIX F

SIGNED MEMORANDUM OF UNDERSTANDING

UNITED STATES FISH & WILDLIFE SERVICE AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

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MEMORANDUM OF AGREEMENT
BETWEEN THE U.S. FISH & WILDLIFE SERVICE
AND THE
CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING
THE SOUTH BAY SALT POND RESTORATION PROJECT
INCLUDING RESTORATION OF FORMER INDUSTRIAL SALT PONDS TO TIDAL SALT MARSH AND OTHER WETLAND HABITATS, INCLUDING THE FORMER SALT WORKS SITES WITHIN THE ALVISO UNIT ON THE DON EDWARDS SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE AND CALIFORNIA DEPARTMENT OF FISH AND GAME'S, EDEN LANDING ECOLOGICAL RESERVE; ALAMEDA AND SANTA CLARA, COUNTIES, CALIFORNIA

WHEREAS, the South Bay Salt Pond Restoration Project (SBSPRP) is an extensive project that includes approximately 20,000 acres of former industrial salt pond complexes along the shoreline of the San Francisco Bay, south of the San Mateo Bridge. The salt ponds were part of a vast system of salt ponds previously operated by Cargill Salt. In 2003 the Alviso and West Bay salt pond complexes were transferred to the U.S. Fish and Wildlife Service and included in the Don Edwards San Francisco Bay National Wildlife Refuge (DESFBNWR). The Baumberg salt pond complex, now knows as the Eden Landing Ecological Reserve, is owned and managed by the California Department of Fish and Game (CDFG). The SBSPRP is partially on federal property, will require a federal permit, and will use federal funding. Restoration activities will change the salt ponds to salt marsh which alters their function and open water appearance, both of which are contributing characteristics of the historic landscape and has the potential to affect a historic property (Undertaking) (Figure 1 in Attachment 1); and

WHEREAS, the U.S. Fish and Wildlife Service (USFWS) has determined, in consultation with the California State Historic Preservation Officer (SHPO), that the former salt works and evaporative salt industry ponds associated with the Alviso Unit of the DESFBNWR and property owned and managed by the CDFG known as the Eden Landing Ecological Reserve (ELER) are eligible for inclusion in the National Register of Historic Places under Criteria A (historic property) as historic landscapes, including the six eligible archaeological sites identified within the ELER as defined in 36 CFR Part 800, the regulation implementing Section 106 of the National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. 470f). The SHPO concurred with the evaluation on October 12, 2010; and

WHEREAS, the USFWS has determined that altering the former industrial salt ponds in the Alviso and ELER complexes by replacing the controlled flow of water with a tidally influenced marsh environment will adversely affect the character defining elements of the ponds by affecting their function and appearance and may adversely affect the archaeological sites by changing the water system (Adverse Effect); and

WHEREAS, the USFWS has consulted with the SHPO pursuant to 36 CFR Part 800 regarding the Undertaking's adverse effects on historic properties and the USFWS has notified the Advisory Council on Historic Preservation (Council) of the adverse effect pursuant to 36 CFR 800, implementing Section 106 of the National Historic Preservation Act, as amended, 16 U.S.C. 470f (NHPA). The Council has declined to participate in a letter dated December 3, 2010; and

WHEREAS, a portion of the project is on land owned by the CDFG. The USFWS and CDFG have consulted regarding this project and have executed a Memorandum of Understanding (MOU) that determines that the USFWS is the lead agency and defines the relationship and responsibilities of each agency. The CDFG is a consulting party with obligations that are associated with the resolution of the adverse effect, thus they have been invited to concur in this MOA (800.6(c)(3); and

WHEREAS, the USFWS has consulted with interested parties and tribes. The SBSPRP includes a wide variety of partners and agencies. Communication with and input from stakeholders in the community and interested organizations continues to be achieved using public meetings and workshops, a website, a newsletter, press releases, and presentations, to ensure that the public remains informed about the project status and is involved in the planning and implementation process. The USFWS consulted with tribes and tribal members provided by the California Native American Heritage Commission. Consultation was also accomplished through contacts during the public outreach efforts. The Hayward County Historical Society and parties that expressed an interest will continue to be updated as the project is implemented; and

NOW, THEREFORE, the USFWS and the SHPO agree that if the Undertaking proceeds, the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on a historic property and to satisfy the requirements of Sections 106 and 110(b) of the NHPA, and further agree that these stipulations shall govern the Undertaking and all of its parts until this Memorandum of Agreement (MOA) expires or is terminated.

STIPULATIONS

The USFWS and by extension through the MOU, CDFG shall ensure that the following stipulations are implemented:

I. Area of Potential Effect

A. The Area of Potential Effect (APE) is depicted in Figures 2 and 3 (Attachment 1) and includes the Alviso Historic District and ELER Historic District that are located in the southern end of San Francisco Bay. The ELER encompasses 6612 acres divided into 23 ponds. The Alviso Unit encompasses 9677 acres divided into 28 ponds. Within the APE, activities will focus on restoring the salt ponds to naturally functioning, tidally influenced salt marsh which requires breeching levees and opening ponds to the tides, building levees between the newly restored

tidal marsh areas and local communities, and restoring habitat features. Additionally, archaeological resources within the ELER Historic Landscape that are contributing elements of the landscape may be affected by fluctuating water levels

B. If modifications to the Undertaking take place subsequent to the execution of this MOA that necessitate the revision of the APE, USFWS will consult with the SHPO to facilitate mutual agreement on the subject revisions. If USFWS and SHPO cannot reach an agreement, then the parties will resolve the dispute in accordance with Stipulation III.B of this document. Should the USFWS and SHPO reach mutual agreement on the proposed revisions the USFWS will submit a final map of the revision no later than 30 days following such an agreement.

II. Mitigation of Project Effects to Historic Properties

The USFWS has consulted with the SHPO and has developed a historic properties treatment plan (Attachment 2) that will be implemented, prior to and during the SBSPRP. The mitigation plan follows the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and includes the following elements:

A. Recordation of Historic Properties: The Alviso and ELER salt pond complexes are considered historic landscape districts. The USFWS consulted with the Regional Coordinator for the HALS program at the National Park Service regarding the requirements for photo documentation and recordation of the landscape that is commensurate with the level of adverse effect. NPS-HALS program staff responded with guidance on the requirements for recordation, therefore all recordation and photography documentation requirements will be in accordance with this guidance. The HALS documentation will be submitted to the NPS for transmittal to the Library of Congress. Copies of the HALS documentation will also be maintained at the DESFBNWR, USFWS Cultural Resources Team office, CDFG, and the Hayward County Historical Society.

B. Interpretation of Solar Salt Industry: Interpretive materials will be developed, including at least one interpretive panel and pamphlet that describes the solar salt industry process and landscape features that were associated with the evaporative salt industry. A draft of the interpretive materials will be shared with SHPO and interested parties for review and comment. The panel will be installed within the ELER. The timeline for completing the interpretive materials is based on the pace of the restoration project but is estimated to be within 5 years of the date of this agreement

C. Archaeological Resources: Archaeological resources within the ELER that are contributing elements of the historic landscape will be treated according to the Treatment Plan (Attachment 2). Generally, sites will be protected *in situ*.

However, sites that are affected by fluctuating water levels will be documented with photography, GPS mapping, and limited subsurface testing of features and selective surface collection. The sites will then be monitored once a year at a low tide event or summer dry season for five consecutive years from the signing of this MOA. Monitoring will continue until the restoration work is completed. No additional affects are anticipated from the restoration work once the salt marsh habitat has been reestablished, at that point monitoring will cease. If any site appears to be accessible to vandals or the structure of the site changes due to vandalism, then a more substantial data collection procedure will be instituted. There is also the potential for new discoveries to occur and these will be managed by recordation and data collection procedures outlined in the Historic Properties Treatment Plan (Attachment 2).

III. Administrative Provisions

A. Standards

1. Professional Qualifications: All activities prescribed in Stipulations I and II of this MOA shall be carried out under the authority of USFWS by or under the direct supervision of a person or persons meeting at a minimum the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738-3, September 29, 1983) in the appropriate disciplines.

B. Dispute Resolution

1. Should the SHPO object to the manner in which the terms of this MOA are implemented, to any action carried out or proposed with respect to implementation of the MOA, or to any documentation prepared in accordance with and subject to the terms of this MOA, the USFWS shall immediately consult with the SHPO for no more than 30 days to resolve the objection. If the objection is resolved through such consultation, the action subject to dispute may proceed in accordance with the terms of that resolution. If, after initiating such consultation, the USFWS determines that the objection cannot be resolved through consultation, the USFWS shall forward all documentation relevant to the objection to the Council, including the USFWS proposed response to the objection, with the expectation that the Council will within 45 days after receipt of such documentation:

    a. Advise the USFWS that the Council concurs in the proposed response to the objection, whereupon the USFWS will respond to the objection accordingly; or

b. Provide the USFWS with recommendations, which the USFWS will take into account in reaching a final decision regarding its response to the objection; or

c. Notify the USFWS that the objection will be referred for comment to the Council pursuant to 36 CFR 800.7, and proceed to refer the objection and comment. The USFWS shall take the resulting comment into account in accordance with 36 CFR 800.7(c)(4) and Section 110 (1) of the NHPA.

2. Should the Council not exercise one of the above options within 45 days after receipt of all pertinent documentation, the USFWS may assume the Council's concurrence in its proposed response to the objection.

3. The USFWS shall take into account any Council recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection. The USFWS responsibility to carry out all actions under this MOA that are not the subjects of the objection will remain unchanged.

4. At any time during implementation of the measures stipulated in this MOA should an objection pertaining to such implementation be raised by a member of the public, the USFWS shall notify the SHPO and take the objection into account, consulting with the objector and, should the objector so request, with the SHPO to address the objection. The time frame for such consultation shall be reasonably determined by the USFWS.

5. The USFWS shall provide to the SHPO, the Council when Council comments have been issued hereunder, and any parties that have objected pursuant to paragraph B.4., above, with a copy of its final written decision regarding any objection addressed pursuant to this stipulation.

6. The USFWS may authorize any action subject to objection under this stipulation to proceed after the objection has been resolved in accordance with the terms of this stipulation.

C. Amendments

Either signatory may propose that this MOA be amended, whereupon the signatories will consult for no more than 30 days to consider such amendment. The amendment process shall comply with 36 CFR 800.6(c)(1) and 800.6(c)(7). This MOA may be amended only upon the written agreement of the signatories. If it is not amended, this may be terminated by either signatory in accordance with Stipulation D., below.

D. Termination

1. If this MOA is not amended as provided for in paragraph C. of this stipulation, or if

either signatory proposes termination of this MOA for other reasons, the signatory proposing termination shall in writing notify the other signatory, explain the reasons for proposing termination, and consult with the other signatory for at least 30 days to seek alternatives to termination. Should such consultation result in an agreement on an alternative to termination, then, the signatories shall proceed in accordance with the terms of that agreement.

2. Should such consultation fail, the signatory proposing termination may terminate this MOA by promptly notifying the other signatory in writing. Termination hereunder shall render this MOA null and void. If this MOA is terminated hereunder and if the USFWS determines that the Undertaking will nonetheless proceed, then the USFWS shall either consult in accordance with 36 CFR 800.6 to develop a new MOA or request the comments of the Council pursuant to 36 CFR Part 800.

E. Duration of the MOA

Unless terminated pursuant to paragraph D. of this MOA, or unless it is superseded by an amended MOA, this MOA will be in effect until the USFWS, in consultation with the SHPO, determines that all of its stipulations have been satisfactorily fulfilled. The duration of this MOA will not exceed seven (7) years, because of the restoration phases that require up to five years to complete, unless the signatory parties agree to an extension. Upon a determination by USFWS that all of the terms of this MOA have been satisfactorily fulfilled, this MOA will terminate and have no further force or effect. The USFWS will promptly provide the SHPO and CDFG with written notice of its determination and of the termination of the MOA. Following provision of such notice, this MOA will be null and void.

F. Effective Date

This MOA will take effect when it has been executed by both the USFWS and the SHPO. Execution of this MOA by the USFWS and the SHPO, its transmittal by the USFWS to the Council in accordance with 36 CFR 800.6(b)(1)(iv) and subsequent implementation of its terms, shall evince pursuant to 36 CFR 800.6(c), that this MOA is an agreement with the Council for purposes of Section 110(1) of the NHPA, and shall further evince that the USFWS has afforded the Council an opportunity to comment on the Undertaking and its effects on historic properties, and that the USFWS has taken into account the effects of the Undertaking on historic properties. The CDFG is a concurring party to the MOA as represented by their signature.

U.S. FISH and WILDLIFE SERVICE

By: D. Mendel Stewart Date: 5/25/12

Mendel Stewart, Project Leader, San Francisco Bay NWR Complex, Region 8

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

By: milford wayne donaldson Date: 28 JUN 2012

Mr. Milford Wayne Donaldson, FAIA: California State Historic Preservation Officer

Concurring Party
CALIFORNIA DEPARTMENT OF FISH AND GAME

By: Scott Wilson Date: 6/12/12

Mr. Scott Wilson, Acting Regional Manager, Bay Delta Region

Attachments:
Attachment 1: Figure 1. Project Location Map.
Figure 2. Alviso Unit APE.
Figure 3. ELER APE.

Attachment 2: Historic Properties Treatment Plan

South Bay Salt Pond Restoration Project

Alviso Unit APE Map

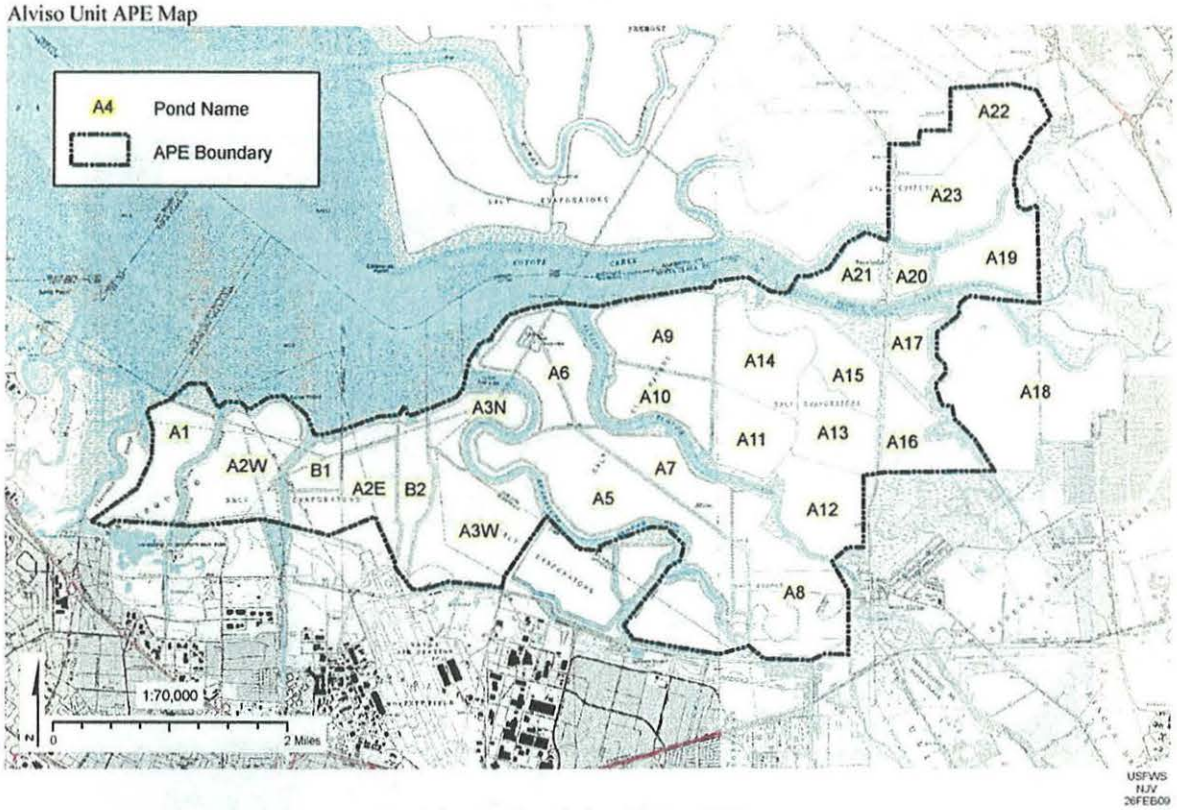

Figure 2. Alviso Unit APE.

South Bay Salt Pond Restoration Project

Eden Landing Unit APE Map

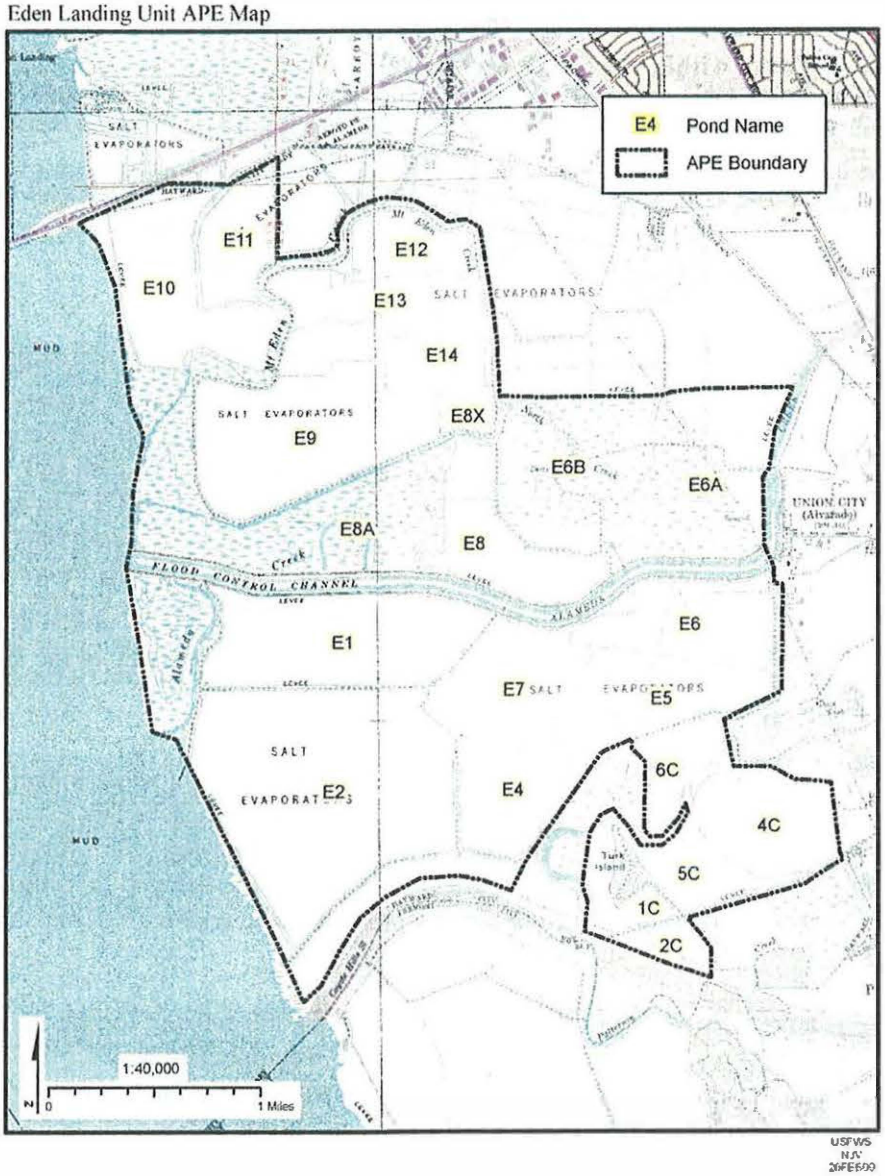

Figure 3. ELER APE.

ATTACHMENT 2.

U.S. Fish and Wildlife Service Project #FWS040721A
Historic Properties Treatment Plan
for the
Salt Works within the South Bay Salt Pond Restoration Project at the
Alviso Unit, Don Edwards San Francisco Bay National Wildlife Refuge,
and the
Eden Landing Ecological Reserve, California Department of Fish and Game
Alameda and Santa Clara counties, California
January 14, 2011/revised May 4, 2012

Introduction

The South Bay Salt Pond Restoration Project (SBSPRP) will restore the former industrial salt production ponds in South San Francisco Bay to a more natural mix of tidal wetland habitats and managed ponds. The restoration comprises former salt ponds located at the southern end of San Francisco Bay. The SBSPRP encompasses property managed by the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG). The agencies are working together along with the California State Coastal Conservancy (Conservancy) and U.S. Army Corps of Engineers (USACE) and other project partners. The SBSPRP is composed of three noncontiguous units, including the Eden Landing Ecological Reserve (ELER or Eden Landing) on the east side of the Bay near the San Mateo bridge; the Alviso unit at the southern end of the bay; and the West Bay-Ravenswood unit located on the west side of the Bay near the Dumbarton Bridge (Figure 1).

In 2010 the salt works at the Alviso Unit and ELER were evaluated and determined to be eligible to the National Register of Historic Places (NRHP) as historic landscapes that encompass a range of condensing ponds, archaeological resources, and features associated with solar salt production and processing. This historic properties treatment plan has been developed to mitigate for the adverse effects associated with converting the salt ponds back to a native salt marsh habitat.

Undertaking

The SBSPRP is an extensive project that includes nearly 20,000 acres of former industrial salt ponds that were part of a vast system of salt ponds previously operated by Cargill Salt. The USFWS is the lead agency for complying with the National Historic Preservation Act. The Alviso Unit is managed by the USFWS and the ELER salt ponds are owned and managed by the CDFG. The SBSPRP is partially on federal property, will require a federal permit, and will use federal funding. Restoration activities will change the salt ponds to salt marsh which alters their function and open water appearance, both of which are contributing characteristics of the historic landscape and has the potential to affect a historic property

South Bay Salt Pond Restoration Project

Project Overview and APE Map

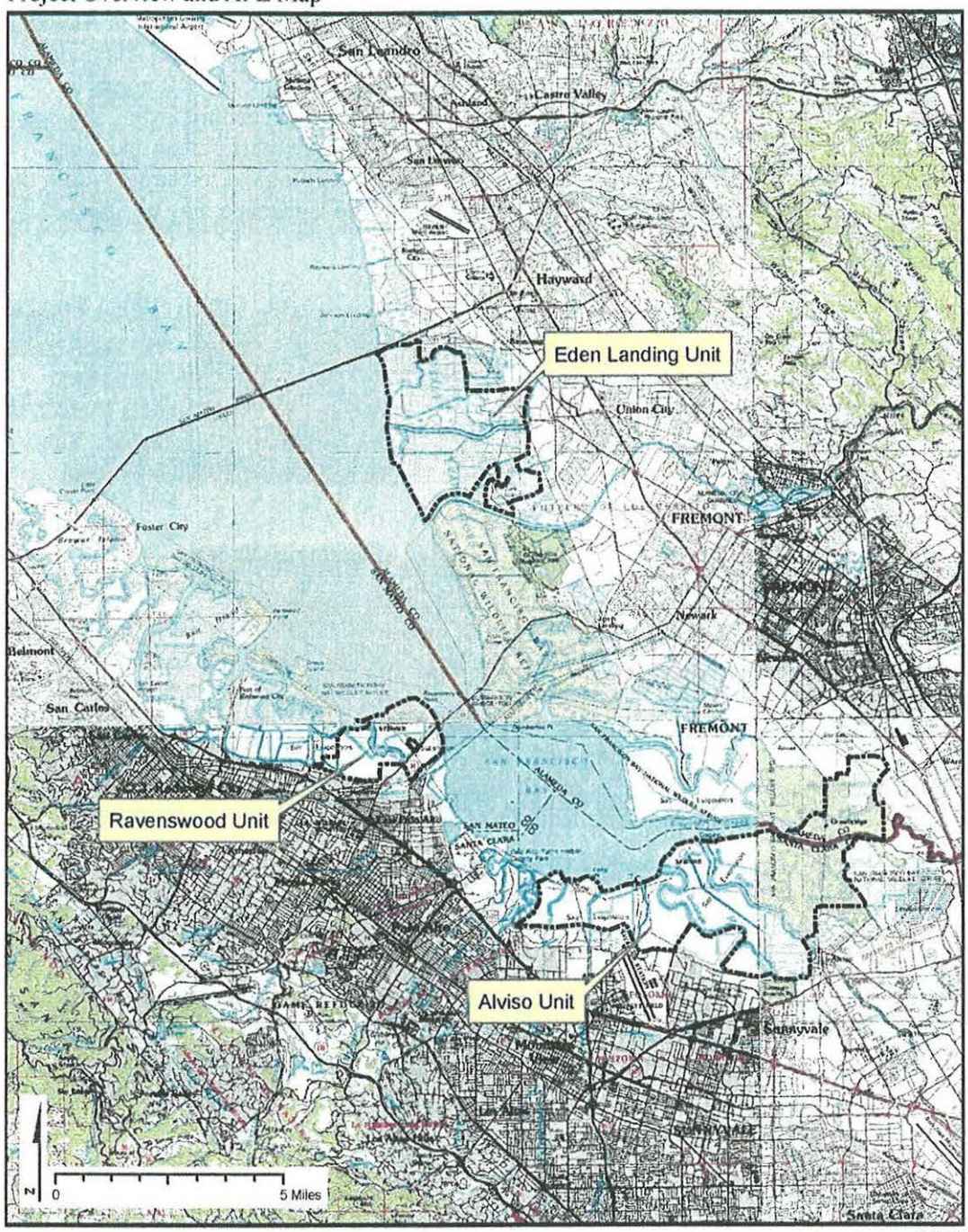

Figure 1. Project location map.

Area of Potential Effects
The Area of Potential Effect (APE) is depicted on Figure 1 and includes the Alviso Historic District and ELER Historic District that are located in the southern end of San Francisco Bay (See Figures 2 and 3). The ELER encompasses 6612 acres divided into 23 ponds, in Alameda County. The Alviso Unit encompasses 9677 acres divided into 28 ponds, within Alameda and Santa Clara counties. Within the APE, activities will focus on restoring the salt ponds to naturally functioning, tidally influenced salt marsh which requires breeching levees and opening ponds to the tides, building levees between the newly restored tidal marsh areas and local communities, and restoring habitat features. Additionally, archaeological resources within the ELER Historic Landscape that are contributing elements of the landscape may be affected by fluctuating water levels

The Alviso Unit is drained, from east to west, by Mud Slough, Coyote Creek, Alviso Slough, Guadalupe Slough, Stevens Creek, Mtn View Creek, and Charleston Slough. The boundaries of the Alviso Salt Works Historic Landscape are established by legal ownership and natural features. The Eden Landing Unit is drained by Mt. Eden, North, and Old Alameda Creeks, the Alameda Federal Flood Control Channel marks the southern boundary of the district. The boundaries of the Eden Landing Salt Works Historic Landscape are established by legal ownership and natural features.

Alviso Salt Works Eligibility to the National Register of Historic Places:
The Alviso Salt Works Historic Landscape meets eligibility standards under criterion A because it is associated with the twentieth century period of industrialization when one operator created a vast network of evaporation ponds to produce the large amount of brine necessary to meet production demands. The SHPO has concurred with the eligibility determination (Donaldson to Mruz, October 12, 2010). Interpreting the Alviso Salt Works landscape offers a different view of the salt industry than the Eden Landing area. The Alviso Salt Works clearly reflects the industrial zenith and development of huge tracks of salt marsh for salt brine production. The large exterior levees and vast ponds are the signature features of the Alviso Unit solar salt landscape.

Alviso Salt Works Historic Properties Description
The history of solar salt production in Alviso dates from the 1920s. In Alviso, the salt industry did not develop from small, family-owned salt farms, but rather, began as an industrial-level enterprise. Only two salt companies, the Alviso Salt Company (that included Continental Salt and Chemical Company) and Schilling's Arden Salt Company are associated with the Alviso unit. Both companies appear to have built levees, developed salt ponds, and harvested salt from these lands during the 1920s. Arden acquired Alviso Salt in 1929, including its plant near the town of Alviso. Leslie Salt became the sole operator after 1936, until Cargill's acquisition in 1978 (EDAW 2005:14).

The Alviso Salt Works is characterized by vast evaporation ponds, large levees, and robust water control devices. The pattern of spatial organization has changed only slightly from the 1950s when the operation was controlled by the Leslie Salt Company. The Alviso Unit was developed for brine production there were no crystallizing ponds or processing plants within the unit.

One archaeological site, one townsite, and a bridge have been recorded within the Alviso Salt Works, none of which are related to salt production (Table 1). Only two of the three resources within the Alviso Salt Works are potentially eligible properties but they do not contribute to the Alviso Salt Works Historic Landscape. The town of Drawbridge (P-01-003291) and site CA-ALA-338 (P-01-002057) have been reviewed but no formal determination of eligibility has been completed. Site CA-ALA-338 was originally noted in 1909 by Nels C. Nelson as a shell-midden mound site. The site location has been re-visited, but no evidence of the site was identified (Busby 2008; Valentine 2009). Site CA-ALA-338 appears to have been completely destroyed by salt pond development.

The town of Drawbridge (P-01-003291) was a small community of cabins that were used for duck hunting and weekend retreats. The isolated location also attracted bootleggers, gamblers, and prostitution in the 1920s and 1930s. Leslie's salt plant diked off parts of the east and west marshes at the southern end of San Francisco Bay, leaving Drawbridge in isolation and causing the ground to subside (Morrow 1984; EIS/EIR 2007 Report). Environmental conditions for the island have not improved since the 1940s and most of the cabins are in serious decline, are threatened by vandalism, or are sinking into the marsh. The community was essentially abandoned by the 1950s with the last resident staying until 1978 when the Don Edwards San Francisco Bay NWR was established. Drawbridge is within the refuge boundaries but a corridor through the center of the island and town is on land owned by the Southern Pacific Railroad and private entities. Access to the island requires permission from the Southern Pacific Railroad to cross on their tracks. Because the Service does not own or manage the primary corridor of the town which is within 50 ft of the tracks along with safety concerns with the access on an active railroad track, the deteriorated condition of the buildings, and the problem of continued subsidence of the island have sidelined a proactive preservation approach and implementation of a 1980s plan to open the site to visitors (Morrow 1984:136-137).

The Coyote Slough bridge was constructed in 2001 as a replacement of an earlier bridge and is ineligible to the NRHP.

Table 1. Recorded cultural resources within the Alviso Works Historic Landscape.

Trinomial Site No.	Primary Site No.	Treatment	Eligibility To the NRHP	Description
CA-ALA-338	P-01-002057	N/A	Unevaluated	Disturbed remnants of shell midden; no surface evidence.
	P-01-003291	Monitor	Unevaluated	Drawbridge townsite
	P-01-010205/P-43-001578	N/A	No	Coyote Slough Bridge-installed in 2001.

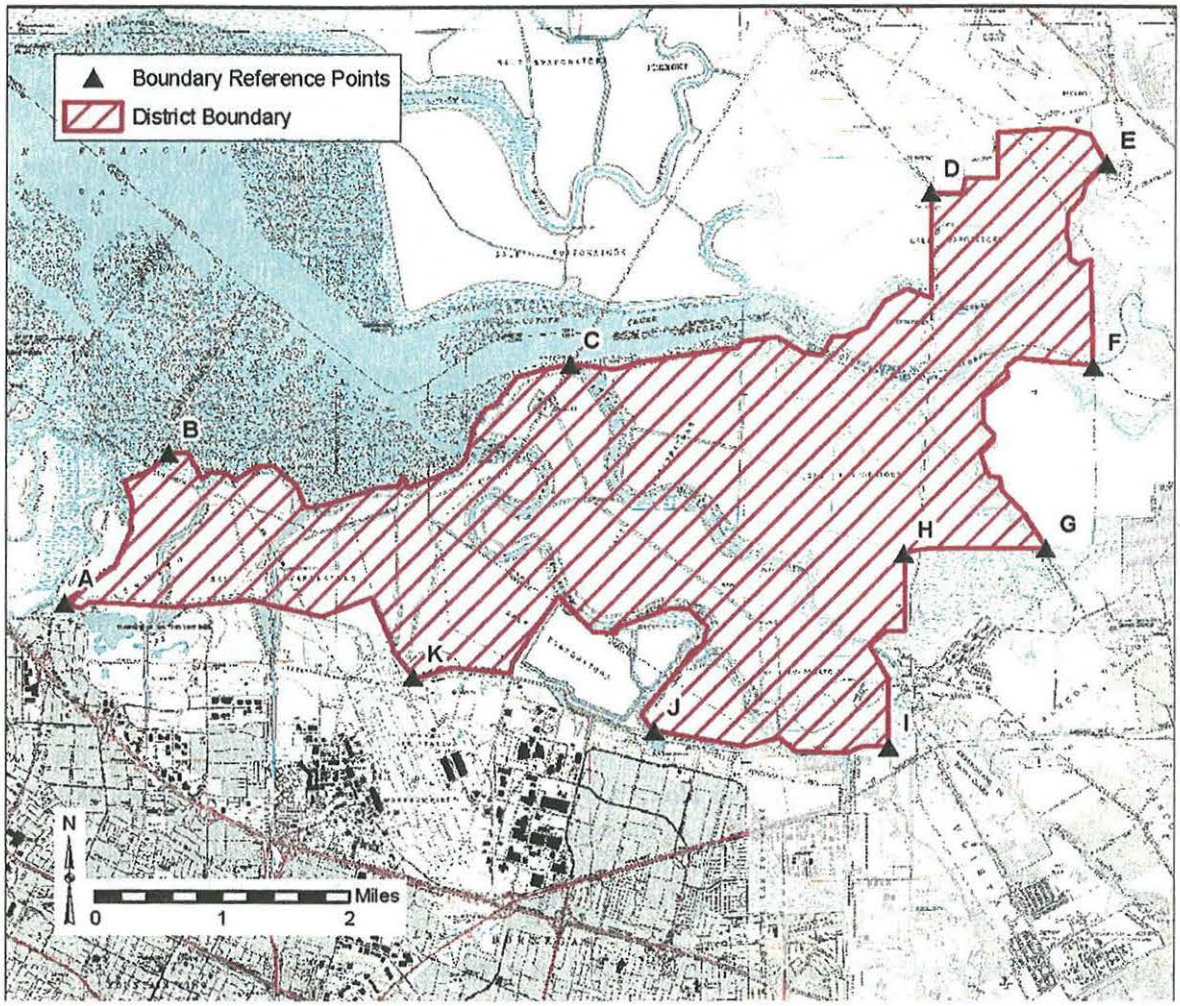

Figure 2. Alviso Salt Works Historic Landscape – Project APE.

Eden Landing Salt Works Eligibility to the National Register of Historic Places:
The Eden Landing Salt Works meets eligibility criteria A and D as defined by the National Register of Historic Places (NRHP) as a historic landscape. The SHPO has concurred with the eligibility determination (Donaldson to Mruz, October 12, 2010). Character defining elements of the historic landscape are the perimeter levees, interior pond divisions, archaeological sites associated with the family-owned processing plants and landings, and the Archimedes screw pumps. The overall Eden Landing Salt Works Historic Landscape provides an opportunity to interpret the evolution of the solar salt industry.

Eden Landing Historic Properties Description

The San Francisco Bay solar salt industry had its beginnings in the Eden Landing area. The initial salt production operations were small, family-owned parcels of less than 50 acres. There were nearly 30 different salt works located within the Eden Landing area between 1850 and 1910. One of the largest salt operations was the Union Pacific Salt Company which was in continuous production from 1872 to 1927. The Oliver Salt Company was among the few nineteenth century salt producers that continued operation into the 1920s. Between 1910 and 1930 the industry began consolidating as the market demand for salt increased beyond the capacity of the small producers. In 1930 the number of operators dropped from 28 to only five; and by the 1940s Leslie became the only major operator (EDAW 2005:14). "The Leslie-California Salt Company purchased the Oliver Salt works in 1931" (Ver Planck 1958:110). The small ponds have been altered to meet modern large-scale production needs.

Eleven cultural resources have been recorded within the Eden Landing Salt Works Historic Landscape, all of which are related to the historic period of salt manufacturing (Table 2). Four sites have been determined eligible, five sites have been determined ineligible, and one site is unevaluated. And, one architectural resource, the Archimedes Screw Windmills has been determined to be a contributing element of the Eden Landing Salt Works historic landscape.

Table 2. Recorded cultural resources within the Eden Landing Salt Pond Historic Landscape.

Trinomial Site No.	Primary Site No.	Treatment	Eligibility To the NRHP	Description
CA-ALA-489H, -501H	P-01-000217	Monitor and data collection	Yes	Eden Landing historic shipping station (warehouses, wharves, associated developments)
CA-ALA-494H	P-01-000210	Interpret, monitor	Yes	Oliver Salt Co. piling and foundations
-	P-01-010740	Interpret, monitor	Yes	Archimedes Screw Windmills
CA-ALA-495H	P-01-000211	N/AA	No	Location of former Rocky Point Saltworks – no surface remains.
CA-ALA-496H	P-01-000212	Monitor	Yes	Pilings and foundation of former Union Pacific Salt (ca. 1872-1927)
CA-ALA-497H	-	N/A	No	Peterman's Salt Works -- no surface remains
CA-ALA-498H	P-01-214	N/A	No	Salt works, not relocated
CA-ALA-499H	P-01-215	N/A	No	Modern refuse scatter
-	PF-1	Monitor	Yes	Whisby Salt Works refuse scatter
-	P-01-010834	N/A	No	Union City Alvarado Salt Ponds
-	FWS-07-12-1	Monitor, data collection	Yes	J. Quigely Alvarado Salt Works, domestic refuse scatter

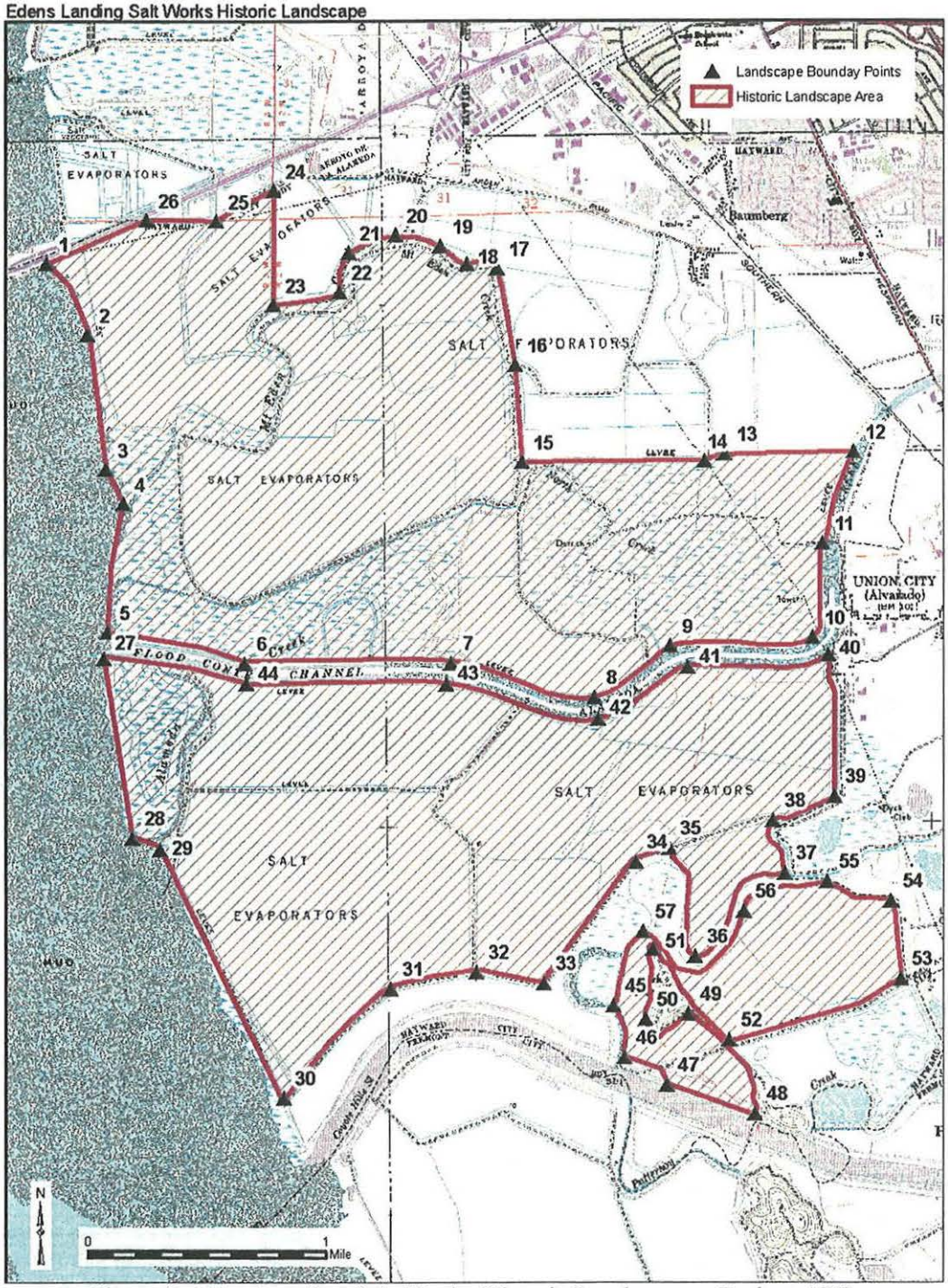

Figure 3. Eden Landing Salt Works Historic Landscape – Project APE.

Character Defining Features of the Alviso and Eden Landing Salt Works Historic Landscape

Character defining features of the Salt Works includes the landscape of levees, open-water ponds, water control structures, roads, and remnant wooden features, and archaeological sites. The initial evaporation ponds were built adjacent to the bay while secondary ponds were larger and protected from inundation from open bay water. Pickling and crystallizing ponds are relatively small and close to the salt processing plant and transportation corridor. The landscape features are engineered but lack distinctive qualities of individual workmanship or materials. The features are important because of their interrelationship and function as an evaporative salt factory. The ponds appearance of open water surrounded by earthen levees is a character defining feature.

The ELER encompasses some of the earliest salt ponds developed for salt production from the naturally suitable tidal salt marsh lands. Remnant features of the salt works of the Oliver family, the Barton family's Union Pacific Salt Works, and J. Quigley's Alvarado Salt Works are represented by archaeological sites that are historic properties. Overprinting by the modern solar salt industry has altered the nineteenth century landscape, raising levees, combining small ponds into much larger evaporation ponds, and changing the flow of water. The levees, water control structures, intakes, and pump stations have all been altered over the years to accommodate the increased production capacity, yet the distinctive pond landscape and remnant features reflect the evolving solar salt production industry.

Assessment of Effects to the Alviso and Eden Landing Salt Works Historic Landscape

The assessment of effects is determined by applying the criteria of adverse effects as provided in 36 CFR 800.5(ii).

> *Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization,. . . that is not consistent with the Secretary's standards for the treatment of historic properties and applicable guidelines.* The *Secretary's Standards* suggest that changes to historic properties should be minimal, follow the original plan, and should be compatible with existing materials or function.

The proposed modifications to remove salt works ponds from salt production will change their function and open water appearance, which are contributing characteristics of the historic landscape. The proposed restoration activities will alter these character defining features of the property which contributes to its eligibility and is an adverse effect as per 36 CFR 800.5(2)(iv). Additionally, altering the water flow from a controlled level to a tidally influenced dynamic flow may affect the six eligible sites within the Eden Landing Salt Works. Only the salt pond landscape will be affected by the restoration activities in the Alviso Salt Works.

Mitigation to resolve the adverse effects of the project activities is directed toward the salt pond landscape and six sites in the ELER.

Treatment Plan Actions
This Historic Properties Treatment Plan will affectively mitigate the effects of the SBSPRP. The USFWS and CDFG will ensure implementation of the treatment plan to include:

1) Documenting the salt works landscape based on consultation with the NPS Regional Coordinator for the Historic American Landscapes Survey (HALS);

2) Submitting the HALS documentation to NPS who will transmit it to the Library of Congress. Additionally, copies of the HALS documentation will be maintained at the DESFBNWR, USFWS Cultural Resources Team office, CDFG, and the Hayward Historical Society;

3) Protecting archaeological resources *in situ* within the ELER that are contributing elements of the historic landscape. Sites that are affected by fluctuating water levels will be documented with photography, GPS mapping, and limited subsurface testing of features and selective surface collection. The sites will then be monitored once a year at a low tide event or summer dry season for five consecutive years from the signing of this MOA. Monitoring will continue until the restoration work is completed. No additional affects are anticipated from the restoration work once the salt marsh habitat has been reestablished, at that point monitoring will cease. If any site appears to be accessible to vandals or the structure of the site changes due to vandalism, then a more substantial data collection procedure will be instituted.

4) Monitoring sites will include a site visit by a qualified archaeologist who will prepare a brief condition assessment report with photo-documentation of each site. Photographs will be taken from set photo points, each year, in order to trace any changes to the sites. Photographs will be maintained by the USFWS Cultural Resources Team (CRT). The CRT will evaluate the photographic record annually to provide site protection recommendations to the land managing agency. Reports will be archived with project materials at the CRT office.

5) Developing interpretive materials to be installed within the ELER that introduces the story of evaporative salt production in the San Francisco Bay region, including a boardwalk and interpretive panel at the Oliver Salt Works and Archimedes Screw Windmills.

Summary and Resolution of Adverse Effect
The mitigation measures presented in this Historic Properties Treatment Plan and stipulated in the Memorandum of Agreement will resolve the adverse effect of the South Bay Salt Pond Restoration Project.

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