Sent via electronic mail
Lieutenant Colonel John C. Morrow, Commander
US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103-1398
Email: Gregory.g.brown@usace.army.mil
Attn: Greg Brown

March 26, 2016

Re: Public Notice (PN) 2013-00374S, Newark Slough Mitigation Bank, Alameda County, California

Dear Commander Morrow,

This responds to Public Notice regarding a proposal to establish a wetland mitigation bank and a species conservation bank in a former salt pond adjacent to Newark Slough in Newark, California.

The proposed site is bounded by Thornton Avenue and the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) to the north, the Refuge to the west, vacant and industrial land to the east and a Union Sanitary District pump station, the Hetch Hetchy aqueduct, and Southern Pacific railroad tracks to the south. The site is 59.2-acres consisting predominately of abandoned salt production ponds. The PN states the elevations on the site range from 0 to 10 feet above sea level. The northernmost portion of the site includes 1,400 linear feet (0.9 acres) of Newark Slough and 8 acres of adjacent tidal marsh. The site contains 22.8 acres of seasonal waters, 8.1 acres of non-tidal saline wetlands, 5.8 acres of a remnant of Newark Slough, 13.7 acres of uplands along the levee tops, and 2-acres of higher ground along the southern boundary of the site. Based upon the description provided, it appears that only 15.7 acres out of the 59.2 acre site are not waters of the U.S.

The project proponent proposes to "restore" 45.9 acres and preserve 9.9 acres of tidal marsh complex, and enhance and preserve 3.1 acres of upland buffer and transitional habitat. The "restoration" of tidal marsh would be accomplished by lowering the levee that separates the abandoned salt pond from Newark Slough. Upland berms that surround the remnant channel of Newark Slough would also be lowered to "elevations that will allow tidal influence and support tidal marsh vegetation."

Regarding project impacts, the PN states:

> Construction activities, including grading and fill placement, will occur in wetlands and waters subject to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. *A Nationwide Permit* or Individual Permit will therefore be required prior to the start of any construction associated with mitigation bank establishment. *Estimates of fill volume or impact area subject to Section 404 or Section 10 have not been provided*. [*emphasis added*]

We are appalled by the lack of substantive information provided within this Public Notice. We do not concur that Nationwide Permit authorization is appropriate for authorization of a wetlands mitigation bank. We have observed a

large portion of the area to be "preserved" under water during extreme tide events, and therefore question the extent to which this site is appropriate to serve as a wetlands mitigation or species conservation bank. Based on the limited information made available to the public, this Public Notice stymies the public's ability to provide meaningful comment. We urge the Corps to suspend this public comment period and circulate a revised public notice when more details are available.

The Public Notice:

- Fails to provide an indication of the extent and location of Section 10 Rivers and Harbors Act jurisdiction,
- fails to state the extent of, or provide a jurisdictional map of Section 404 Clean Water Act jurisdiction,
- states the applicant has NOT provided estimates of fill volumes or impact area subject to Section 10 or Section 404 jurisdiction
- provides only in general terms any indication of existing, or even more important, projected site elevations
- states the federally listed endangered salt marsh harvest mouse and Ridgeway's Rail have been documented within the project site along Newark Slough, but provides no indication of the extent to which the project may impact these species or their habitat
- fails to indicate what species may currently utilize the site besides the federally listed species mentioned above
- fails to provide any indication of standards by which "success" of the proposed tidal marsh "restoration" will be measured

We question why a public notice has been issued as the application for the proposed mitigation bank does not appear to be complete. 33 C.F.R. 325.1 (d) requires the application "must include a complete description of the proposed activity including necessary drawings, sketches, or plans sufficient for public notice." How can an application be deemed complete without crucial information such as whether there will be any fill placed in waters of the U.S., where the fill will be placed, or the extent of fill proposed?

Furthermore, 33 C.F.R. 325.3 (a)(5) states a PN should include:

> A brief description of the proposed activity, its purpose and intended use, *so as to provide sufficient information concerning the nature of the activity to generate meaningful comments*, including a description of the type of structures, if any, to be erected on fills or pile or float-supported platforms, and a description of the type, composition, and quantity of materials to be discharged or disposed of in the ocean; [*emphasis added*]

And § 325.3 (a)(6) requires:

> A plan and elevation drawing showing the *general and specific site location and character of all proposed activities, including the size relationship of the proposed structures to the size of the impacted waterway and depth of water in the area*; [*emphasis added*]

Clearly, the information provided in this public notice does not meet the standards required by Corps regulations, not do they meet the requirements of a complete permit application.

The current public notice is inconsistent with the level of detail provided in PN 08-00046S The Preserve at Redwood Shores, now known as the San Francisco Bay Wetlands Mitigation Bank [PN attached minus the maps and drawings]. The PN for that mitigation bank provided sufficient information for the public to discern the extent of impacts that would occur in waters of the U.S., the types of activities that were proposed to accomplish tidal marsh restoration, and the approximate location of activities that were anticipated.

We urge the Corps to suspend this public notice process and circulate a revised public notice that will address the deficiencies noted above.

Proposed Mitigation Bank:
We have substantive concerns regarding the use of the proposed site as a "wetland" mitigation bank and a species conservation bank. Currently, at extreme high tides, large portions of the wetland areas along Thornton Avenue are inundated [see attached photos]. The PN fails to provide sufficient information to assure the public that the wetlands and endangered species habitat within this mitigation bank will persist as sea level rises.

The PN indicates that the site currently ranges from 0 to 10 feet above sea level. There are 13.7 acres of uplands along the levee tops, and a 2-acre area in the southern portion of the site of "higher ground." There are several points along the historic remnant of Newark Slough that could serve as high-tide refugia for the endangered salt marsh harvest mouse and Ridgway's Rail. The PN states approximately 3 acres of upland area will be enhanced and/or preserved, but does not indicate where the high-tide refugia will be located within the site, nor how long this area will persist as sea level continues to rise. The proposal is to lower existing levees and berms to facilitate tidal marsh restoration of the abandoned salt pond and the establishment of tidal marsh vegetation on the lowered levees and berms. As stated earlier, this will result in a reduction of important high tide refugia for the salt marsh harvest mouse and Ridgway's Rail, during extreme high tide events in the short-term, and as sea level rises in the long-term.

It is important to understand the areal extent of high marsh and upland refugia that will be available to tidal marsh species, particularly since Thornton Avenue, exists to the north and an industrial park is located to the east of the site. How will endangered species be kept out of harm's way in the short term, during extreme high tides, and in the long-term as sea level rises? Additionally, if other project proponents are granted mitigation credits for filling wetlands, there should be some assurance the wetlands enhanced, restored, or preserved at the proposed mitigation bank will persist in the long-term. The applicant must provide information regarding the proposed target elevations for the site, the approximate locations of refugial habitat, and the estimated length of time the tidal marsh and refugia will persist as sea level rises, particularly since large portions of the wetlands adjacent to Thornton Avenue are already inundated at extreme high tides.

Insufficient information has been provided to demonstrate the proposed site is an appropriate location for a wetlands mitigation bank. We do not deny that the wetlands and waters that currently exist at the site might benefit from enhancement or restoration. However, we question how the Corps can entertain issuing mitigation credits for filling wetlands at other locations, at a site that may not continue to support wetlands as sea level rises. It is also of concern that mitigation credits could be given for impacts to federally listed species, when the ability of the site to provide adequate habitat and refugia in the short and long-term has not adequately been demonstrated. Based on the information provided, we urge the Corps to deny this mitigation bank proposal.

Nationwide Permit Authorization for a Mitigation Bank is Inappropriate:

Nationwide permits are a form of general permits and are for particular categories of activities. Projects authorized under nationwide permit benefit from expedited or no review, as long as the activities proposed in waters of the U.S. and navigable waters, meet the terms and conditions of the nationwide permit are met. There is no opportunity for the public to provide comments to individual nationwide permit authorizations, only to the overall program.

The 404 (b)(1) Guidelines (Guidelines) (40 CFR 230.7 (a)) require that to qualify for general permit authorization, the activities will have only *minimal* adverse effects (on water quality and the aquatic environment) individually and *cumulatively*. [*emphasis added*]

It might be possible, that any fills associated with the creation of a mitigation bank are individually minimal. However, while mitigation banks allow project proponents to purchase mitigation credits for wetland fill impacts that are supposed to be individually minimal, when viewed cumulatively they may have significant adverse impacts to the aquatic environment. Wetland mitigation banks do not ensure replacement of wetlands functions and values at the local level, e.g. flood desynchronization, endangered species habitat, etc., nor do mitigation banks ensure no net loss of wetlands. Therefore, the creation of a mitigation bank cannot meet the requirements of a general permit, as the cumulative impacts cannot be considered minimal.

Significant impacts to the aquatic environment also occur when mitigation banks fail. Wetland creation does not require siting in an existing water of the U.S. as is proposed for this mitigation bank. In fact, Corps Guidance itself ranks enhancement as less valuable than the restoration of historic, but no longer functioning, wetlands." §323.3 (a)(2) states, "Restoration should generally be the first option considered because the likelihood of success is greater ... and the potential gains in terms of aquatic resource functions are greater, compared to enhancement and preservation."

Furthermore the Guidance,§ 332.8(a)(2), states "To the maximum extent practicable, mitigation banks and in-lieu fee project sites must be planned and designed to be self-sustaining over time, but some active management and maintenance may be required to ensure their long-term viability and sustainability. Examples of acceptable management activities include maintaining fire dependent habitat communities in the absence of natural fire and controlling invasive exotic plant species."

Creation or restoration of wetlands in areas that are not jurisdictional removes the risk that existing waters of the U.S. could be degraded should the proposed mitigation bank fail. If a mitigation bank proposes conversion or enhancement of waters of the U.S., and fails, there a not only a loss in wetlands functions and values at the mitigation bank site, but any mitigation credits granted for wetland fill impacts would be of no value, resulting in losses of functions and values throughout the service area.

In the Newark Slough mitigation bank proposal, tidal marsh is proposed to be restored through the conversion of existing waters of the U.S. The proposed mitigation bank site is well within the anticipated inundation zone for even the most moderate estimates of sea-level rise. This means that this mitigation bank will be far from self-sustaining and the cost to sustain it (probably requiring the building of higher levees) would be extremely high and not sustainable since creating and maintaining levees is very expensive.

We have already acknowledged the existing wetlands and waters on the site may benefit from enhancement or restoration. However, the uncertainty of whether the "restored" tidal marsh will persist as sea level rises, or for how long, means that authorization of the purchase of wetland and endangered species credits, includes significant risk that any increase in functions and values will not be sustained. And in fact, with respect to the endangered species, lowering existing levees and berms, may in the long-term remove 10 acres of refugial habitat.

As stated earlier, it is not clear why a public notice was issued at this juncture, especially if the most basic of information, the amount of grading and fill in wetlands and waters subject to Section 404 and Section 10, is unknown. It is however, very clear additional substantive information is necessary to determine whether a mitigation bank is appropriate for this site. Nationwide Permit authorization occurs in the absence of any public comment period. It would be highly inappropriate for any mitigation bank to be authorized without providing an opportunity for the local community to provide comment regarding the suitability of the site as a mitigation bank and we have provided substantive comments for why it would be inappropriate for this proposed mitigation bank.

Based upon the deficiencies identified above, we strongly urge the Corps to deny the proposal to establish the Newark Slough Mitigation Bank. The current public comment period should be suspended until sufficient information can be provided in a revised public notice. We request to be kept informed of any decision made on this mitigation bank. We request that we be notified of any future opportunities to provide comments on this proposal.

Sincerely,

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CCCR Co-Chair
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USFWS, Kim Turner
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SFBRWQCB, Bruce Wolfe
CDFW, Marcia Grefsrud

US Army Corps of Engineers

SAN FRANCISCO DISTRICT

PUBLIC NOTICE

NUMBER: 08 00046S DATE: 19 February 2008

RESPONSE REQUIRED BY: 20 March 2008

Regulatory Branch
1455 Market Street
San Francisco, CA 94103-1398

PROJECT MANAGER: Bob Smith Phone: (415) 503-6792/E-mail: robert.f.smith@usace.army.mil

1. INTRODUCTION: Mr. Max Keech, Keech Properties, LLC, 1060 Twin Dolphin Drive, Suite 500, Redwood City, CA 94539 has requested, through his agent Terry Huffman, Huffman-Broadway Group, Inc., [415] 925-2000, Corps of Engineers authorization to construct a wetland mitigation bank, the Preserve at Redwood Shores Mitigation Bank, on a site adjacent to Belmont Slough and Shearwater Parkway in the Redwood Shores area of Redwood City, San Mateo County, California (Figures 1 – 3).

2. PROPOSED PROJECT: The Preserve at Redwood Shores Mitigation Bank project (Project) is proposing to restore an approximately 88-acre area to estuarine intertidal emergent and unconsolidated bottom wetlands habitat. Of the 88-acre restoration site, approximately 61.9 acres would be included in the Preserve at Redwood Shores Mitigation Bank boundary. The project would involve restoring the site to fully tidal estuarine intertidal emergent and unconsolidated bottom wetlands habitat. This would require breaching the current flood control levee and lowering the existing levee to the approximate MHW elevation (105 feet NGVD). Breaching of the levee would occur after completion of a new interior flood control levee that is proposed for the Preserve at Redwood Shores and Salt Court project (Corps Public Notice 30159S).

Historically the 88-acre restoration site was hydrologically connected to Belmont Slough and influenced by the ebb and flow of the tide. During the early part of the 20th century, along with the surrounding Redwood Shores area, the land was separated from the bay by a levee system and drained of water. As a result, it is no longer influenced by the natural ebb and flow of the tide. Current land use on the Project site includes public access trails along a portion of the levee and wildlife viewing.

Approximately 13.9 acres of non-tidal palustrine emergent wetlands, 1.1 acres of tidal palustrine emergent wetlands, and 5.9 acres of open water ponds occur on the site, separated from the bay by the existing levee system. Figure 6, Sheets 1-4, is a map of the jurisdictional areas found within the study area. The proposed project would temporarily impact 0.12 acre of non-tidal wetlands, 0.08 acre of non-tidal open water subject to Corps jurisdiction.

Although the majority of the site is contained within the levee and is not connected to the San Francisco Bay (i.e., the area is not tidal), the soils have high salinity and thus the environment is ideal for such palustrine emergent species. Coastal scrub (non-native grasslands mixed with coyote brush) dominates the upland portions of the site adjacent to the non-tidal palustrine emergent wetlands. Dominant species of vegetation in upland areas include wild oat, soft brome, meadow barley, and coyote brush. Also, due to the historical marsh characteristics of the area, pickleweed may occasionally occur in upland areas.

Within the 88-acre restoration site, approximately 61.9 acres would be included in the mitigation bank boundary (Figure 3). The remaining 26.1 acres consist of:

(1) 1.1 acres of tidal wetlands, along the outside of the levee, which would be preserved;

(2) A 5.9-acre wetland mitigation site near the northeastern corner which was created for impacts related to a levee maintenance project conducted in 2000 by the City of Redwood City and permitted by the Corps (Corps # 19783S);

(3) A 7.7-acre parcel, which transects the northern section of the property and is owned by the State Lands Commission and leased to the Department of Fish and Game; and

(4) An 11.4-acre area which would be used to mitigate for impacts resulting from the Preserve at Redwood Shores and Salt Court project. The Preserve at Redwood Shores and Salt Court project is being processed under a separate permit application (Corps Public Notice 30159S)

To facilitate the restoration of the site, vegetation and debris would be removed and five wave breaks, three ditch blocks, and four levee breaches would be constructed. Additionally, a slough channel would be constructed from the largest levee breach and connected to a historical slough channel (Figures 4 and 5).

Prior to breaching the outer levee, woody vegetation and upland grassland areas would be mowed. The material, along with woody debris and garbage would be raked and hauled to a designated agency-approved upland disposal site. Additionally, as shown on Figures 4 and 5, several "wave breaks," "ditch blocks," and a slough channel would be constructed.

The wave breaks would promote accretion of sedimentation within the restoration site by minimizing the re-suspension of sediments as a result of wave action. The accretion of sediment would in turn promote vegetation growth and protect the new levee by damping wave action generated by wind and storm events. The wave breaks would be approximately 300 feet long, have a maximum elevation of approximately 104.5 feet NGVD, and a 5:1 outboard slope and 3:1 inboard slope. Refer to Figures 4 and 5 for a plan view and cross section of the proposed wave breaks.

Ditch blocks would be constructed within the non-tidal open water ditch (also referred to as the borrow ditch) adjacent to the two small breach locations. The ditch blocks would serve two functions: (1) promote accretion of sediment and vegetation growth and (2) prevent a channel from forming along the base of the existing levee. Refer to Figures 4 and 5 for plan view and cross sections of the proposed ditch blocks.

The main channel (main slough channel) would be constructed from the large levee breach to a historical slough channel (Figure 4). The bottom elevation would be excavated to approximately 98.5 feet NGVD with a bottom width of 3 feet and 5:1 slope. Refer to Figure 5 for a cross section and elevation of the constructed slough channel. The constructed slough channel would act as the primary tidal channel to the restoration site. Due to the presence of overhead power lines the breach would be protected by a floating boom or similar device to keep sailboats from entering the slough.

Once the wave breaks, ditch blocks, and main slough channel are complete, four levee breaches would be constructed. The smallest levee breach, referred to as a "sill" on Figures 4 and 5, is near the northeastern corner of the site across from Bird Island. It would have a bottom width of 15 feet and bottom elevation of 102 feet NGVD. This breach would be armored with rock to prevent downward scouring.

Two small breaches are proposed along the western boundary. They would have a bottom width of 20 feet and bottom elevation of 99 feet NGVD. The two small breaches would also be armored to prevent downward cutting. The sill and two small breaches would provide an additional inlet and outlet during high tides to promote water circulation and the movement of wildlife from wetlands along Belmont Slough and Bird Island to the restoration site.

The largest breach, located just north of the PG&E electrical towers, would serve as the main tidal channel. The bottom of the main channel would be 100 feet wide at an elevation of 97 feet NGVD. Near the center of the bottom of the main channel, a small 20-foot-wide pilot channel would be constructed at elevation 95 feet NGVD. To promote scouring and channel formation during the ebb and flow of the

tides, the pilot channel and main bottom would not be armored. The banks of the main breach would be constructed at a 5:1 slope and stabilized with rock armor. A plan view of the breach locations and cross sections can be found on Figures 4 and 5.

In addition to the four levee breach locations, the outer levee would be lowered to approximately 105 feet NGVG (refer to Figure 5, cross section F). Elevations along the existing levee are approximately 108 – 107 feet NGVD. Lowering the outer levee to 105 feet NGVD would serve several functions, to include: (1) establishment of high marsh vegetation; (2) wildlife access from Belmont Slough and Bird Island to the restoration site by providing visual and physical access; (3) refuge for wildlife (salt marsh harvest mouse and California clapper rail) by providing an upper zone of peripheral halophytes (salt-tolerant plants).

The applicant states that one of the most severely reduced habitats of the San Francisco Bay ecosystem is the tidal marsh/salt marsh community. Of the 193,800 acres of tidal marsh that bordered San Francisco Bay in 1850, about 30,100 remain. These marshes provide essential habitat for many species including the federally listed salt marsh harvest mouse and California clapper rail. The proposed restoration and mitigation bank Project would provide for the restoration of approximately 88 acres of historical baylands of which approximately 61.9 acres would be available as mitigation bank credits. Restoration of the 88 acres would expand or enhance essential habitat for the federally listed salt marsh harvest mouse and California clapper rail, which is key for their recovery.

The Project would provide the public's need for wildlife viewing opportunities and access to the Bay and the public's need to promote the recovery of the salt marsh harvest mouse and California clapper rail in accordance with the U.S. Fish and Wildlife Service. The Project would also provide a private need for mitigation opportunities for project-specific impacts within the mitigation bank service boundary (Figure 7).

3.**CONSIDERATION OF COMMENTS:** The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate authorization of the proposed bank. The Corps will consider any comments received in preparation of the bank enabling instrument.

4. **SUBMISSION OF COMMENTS:** Interested parties may submit, in writing, any comments concerning this activity. Comments should include the applicant's name and the number and the date of this Public Notice, and should be forwarded so as to reach this office within the comment period specified on Page 1. Comments should be sent to the **U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 1455 Market Street, San Francisco, California 94103-1398.** Additional details may be obtained by contacting the applicant whose name and address are indicated in the first paragraph of this Public Notice or by contacting Bob Smith of our office at telephone [415] 503-6792 or E-mail: robert.f.smith@usace.army.mil.

Approximate locations of where photos were taken.

Arrows indicate the direction the camera was pointed.

Photo 1

January 1, 2014

Photo 2

January 1, 2014

Photo 3

January 1, 2014

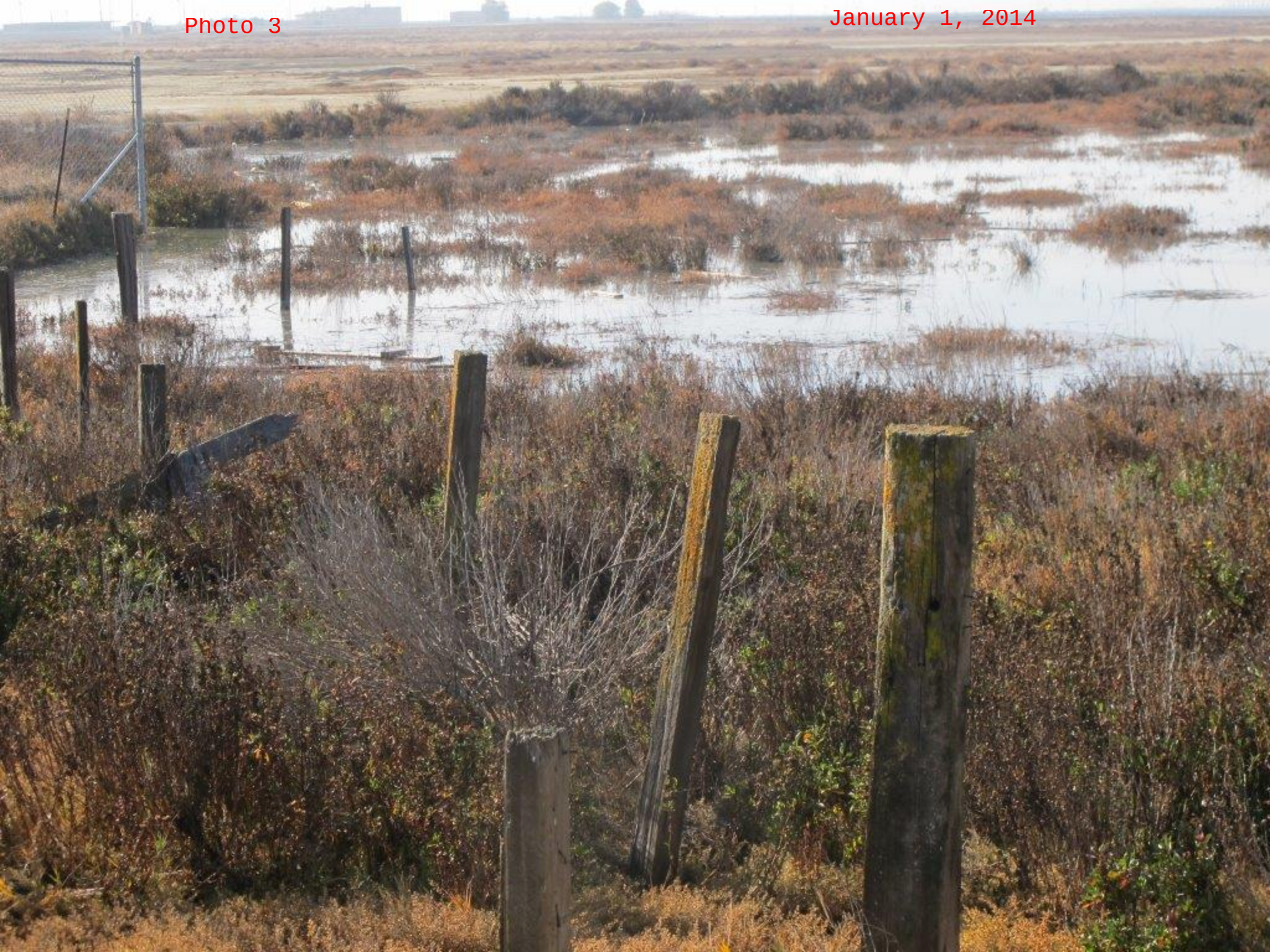

Photo 4

January 2, 2014