Appendix I

Public Comments and Responses on Draft Integrated Document

I Public Comments and Responses on Draft Integrated Document

I.1 Purpose of the Response to Comments

This Response to Comments appendix provides responses to comments received on the draft Shoreline Phase I EIS/EIR/Feasibility Report (Integrated Document). The draft document identified the environmental consequences associated with the implementation of the Shoreline Phase I Study features, as well as avoidance, minimization, and mitigation measures to reduce significant and potentially significant impacts. As a result of these comments, the Integrated Document has been revised.

The draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) with updates, together with this Response to Comments appendix, constitute the Final EIS/R for the proposed Shoreline Phase I Study.

The Final EIS/R is an informational document prepared by the lead agencies that must be considered by decision-makers before approving or denying a proposed project.

Sec. 1502.9(b) of the CEQ Regulations for Implementing NEPA states:

> Final environmental impact statements shall respond to comments as required in Part 1503 of this chapter. The agency shall discuss at appropriate points in the final statement any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised.

CEQA Guidelines (Section 15132) specify that a Final EIR shall consist of:

(a) The Draft EIR or a revision of the draft

(b) Comments and recommendation received on the Draft Program EIR, either verbatim or in summary

(c) A list of persons, organizations, and public agencies commenting on the Draft Program EIR

(d) The response of the lead agency to significant environmental points raised in the review and consultation process

(e) Any other information added by the lead agency.

I.2 Environmental Review Process

On December 18, 2014, the lead agencies (U.S. Army Corps of Engineers and the Santa Clara Valley Water District) released the draft Integrated Document for public review (State Clearinghouse No. 2006012020). The public review and comment period began on December 19, 2014 and closed on February 23, 2015 after a 21 day extension was granted to the original 45-day review period.

The lead agencies provided a Notice of Availability notifying the public of the publication of the draft Integrated Document. This notice was mailed to the individuals and organizations that

have been involved in the Shoreline Phase I Study planning effort, as well as those who previously requested such notice in writing. The notice and the draft document were also posted on the USACE and SCVWD websites.

During the public review period, a public meeting was held to discuss the Proposed Project (Recommended Plan) and receive comments on the draft Integrated Document. The meeting was held on January 14, 2015 at the George Mayne Elementary School in Alviso. The date, time, and place of this meeting were identified in the publicly-circulated Notice of Availability.

I.3 Report Organization

Section 1.5 *Individual Comments and Responses* of this appendix contains copies of comments received during the comment period followed by the lead agencies' responses to those comments. Each comment is coded in the margin of the comment letter, based on the initials assigned for each letter and the order of the comments received (see Table I-1). For example, the first comment is a letter from the Baylands Conservation Committee and is coded 001_BCC. A number of comments that were received addressed similar concerns. Responses to these comments were consolidated into master responses and are provided in Section I.4 *Master Responses*. Four master responses were prepared in response to issues that elicited numerous comments. These master responses include:

- Coyote Creek Levee Alignment;
- Artesian Slough;
- The USACE's Planning Modernization Initiative; and
- Section 1025 of Water Resources Reform and Development Act (WRRDA) 2014.

Where a response includes a change to the text of the draft Integrated Document, the text has been revised in the Final Integrated Document. Minor text revisions are presented in the responses to comments; where substantial revisions were made, the responses include a reference to the revised text in the Final Integrated Document. Text changes in this Response to Comments appendix are indented and shown in underline and ~~strikeout~~ format. Text shown in underline format is new text added to the Final Integrated Document. Text shown in ~~strikeout~~ format is text deleted from the document. Indented text that is presented in normal format (no underline or strikeout) is original text excerpted from the Draft Integrated Document that will remain in the final document and is shown to provide context for the revisions.

Table I-1 lists all persons and organizations that submitted comments on the draft Integrated Document during the comment period, the code used to identify each letter, and the date of each letter.

Table I-1. Persons and Organizations that Submitted Comments on the Draft Integrated Document

Commenter	Code	Agency/Organization	Date
Emily M. Renzel	001_BCC	Baylands Conservation Committee	1/28/2015
Carin High	002_CCCR	Citizen's Committee to Complete the Refuge	1/26/2015
Alice Kaufman	003_CGF	Committee for Green Foothills	1/28/2015
James Munson	004_EPA	U.S. Environmental Protection Agency, Region 9	1/12/2015
Arthur Feinstein	005_Feinstein		1/28/2015
Matthew Liddy	006_Leddy		1/28/2015
Brian Wines	007_RWQCB	SF Bay Regional Water Quality Control Board	1/21/2015
Shani Kleinhaus	008_SCVAS	Santa Clara Valley Audubon Society	1/22/2015
Sejal Choksi-Chugh	009_SFB	San Francisco Baykeeper	1/28/2015
Yves Zsutty	010_SJPRNS	San Jose Parks, Recreation, and Neighborhood Services	1/15/2015
Cy R. Oggins	011_SLC	California State Lands Commission	1/22/2015
D.H. Sulouff	012_USCG	U.S. Coast Guard	1/22/2015
Libby Lucas	013_Lucas_1		1/17/2015
Libby Lucas	014_Lucas_2		1/28/2015
Libby Lucas	015_Lucas_3		1/29/2015
Patricia Maurice	016_Caltrans	Department of Transportation, District 4	2/9/2015
Will Fourt	017_SCPR	Santa Clara County Parks	2/23/2015
Libby Lucas	018_Lucas_4		2/22/2015
Diane Ross-Leech	019_PGE	Pacific Gas and Electric Company	2/23/2015
Roy Molseed	020_VTA	Santa Clara Valley Transportation Authority	2/23/2015
Eileen McLaughlin, Ian Wren, Alice Kaufman, Linda D. Ruthruff, Shani Kleinhaus, Michael Ferreira	021_CCCR_2	Citizen's Committee to Complete the Refuge, San Francisco Bay Keeper, Committee to Complete the Refuge, California Native Plant Society – Santa Clara County Chapter, Santa Clara Valley Audubon Society, Sierra Club Loma Prieta Chapter	2/23/2015
Shani Kleinhaus	022_SCVAS_2	Santa Clara Valley Audubon Society	2/23/2015
Paul R. Kumar	023_STB	Save the Bay	2/23/2015
Laura Thompson	024_SFBTr	San Francisco Bay Trail	2/23/2015
Mark Espinoza	025_Espinoza		2/23/2015
Sarah Richmond	026_BCDC	San Francisco Bay Conservation and Development Commission	2/23/2015
Brian Wines	027_RWQCB_2	SF Bay Regional Water Quality Control Board	2/23/2015
Carin High, Ian Wren	028_CCCR.SFB_3	Citizen's Committee to Complete the Refuge, San Francisco Bay Keeper	2/23/2015
John Stufflebean	029_SV	City of Sunnyvale	2/23/2015
Whitney Berry	030_SJ	San Jose Department of Planning, Building and Code Enforcement	2/23/2015
Kathleen Martyn Goforth	031_EPA_2	U.S. Environmental Protection Agency, Region 9	2/23/2015
Emily Renzel	032_BCC_2	Baylands Conservation Committee	2/23/2015
Scott Wilson	033_CDFW	California Department of Fish and Wildlife	2/23/2015
Dave Cortese	034_Cortese	Santa Clara County Board of Supervisors	2/19/2015
Cecilia D. Craig	035_SFBWS	San Francisco Bay Wildlife Society	2/20/2015

Table I-1. Persons and Organizations that Submitted Comments on the Draft Integrated Document

Commenter	Code	Agency/Organization	Date
Matthew Leddy	036_Leddy_2		2/20/2015
Libby Lucas	038_Lucas_5		2/23/2015
Patricia Sanderson Port	039_DOI	U.S. Department of the Interior	2/2/2015
Pat Mapelli	040_CG	Cargill	2/19/2015
Sam Liccardo, Margie Matthews	041_Liccardo Matthews	San Jose City Council	3/19/2015

I.4 Master Responses

I.4.1 Coyote Creek Levee Alignment

This master response addresses the following comments: 021_CCCR_2-1; 022_ SCVAS_2 -3; 023_STB-3; 023_STB-4; 027_RWQCB_2-5; 028_CCCR.SFB_3-13; 028_CCCR.SFB_3-32; 028_CCCR.SFB_3-34; 032_BCC_2-2; and 034_Cortese-1.

Multiple letters state that the Shoreline Study team prematurely dismissed a variation of the levee alignments that would move the last "leg" of the eastern-side of the Pond A18 levee from its northern terminus (shown in orange in Figure I-1 *Potential Wastewater Facility Segment Levee Alignments*) on the Coyote Creek Flood Protection levee, to a more eastern terminus (shown in green) on the Coyote Creek Flood Protection levee further upstream. In either terminus location, the Shoreline levee would tie into the Coyote Creek flood protection levee which is FEMA certified to provide 100-year fluvial flood protection.

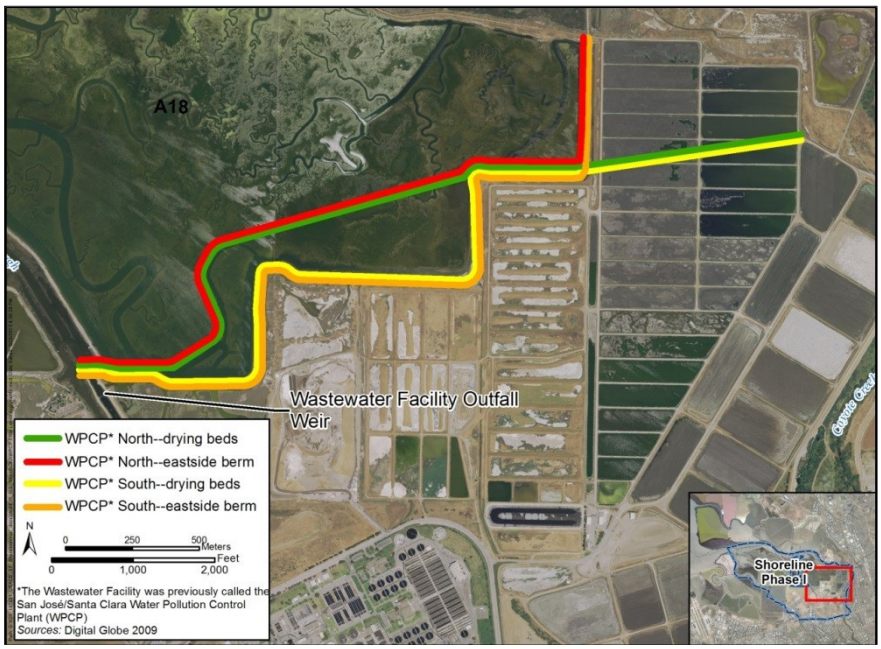


Figure I-1. WPCP South – Drying Beds

An EIS/EIR must describe a reasonable range of alternatives (CEQA Guidelines, section 15126.6(a); 40 C.F.R. 1502.14). The range of alternatives to be analyzed is those that could feasibly attain most of the basic objectives of the project while avoiding or substantially lessening any of the significant effects of the project (CEQA Guidelines, section 15126.6(a)). Among the factors that may be taken into account when evaluating feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can reasonably acquire, control or otherwise have access to the alternative site (CEQA Guidelines, section 15126.6(f)(1)). Similarly, NEPA requires an EIS to include reasonable alternatives that may be feasibly carried out based on technical, economic, environmental, and other factors (see, for example, *Sierra Club v. Froehlke*, 534 F.2d 1289, 8th Circuit 1976); alternatives that are speculative are not required to be included in an EIS (see, for example, *Seacoast Anti-Pollution League v. Nuclear Regulatory* Commission, 598 F.2d 1221, 1st Cir. 1979).

The eastern terminus alignment was not carried forward as a feasible alternative for consideration in the draft EIR/EIS (referred to in this document as an Integrated Document as combined with the USACE Interim Feasibility Study) because the City of San Jose's current plan for the San Jose-Santa Clara Regional Wastewater Facility (Wastewater Facility) is to retain the existing sludge lagoons which currently occupy the area needed to implement an eastern terminus alignment. The City of San José adopted the Plant Master Plan (PMP) for the Facility in November 2013. The PMP is a planning document to guide improvements at the plant for the next 30 years, including defining future treatment needs and designating future land use on plant lands. The PMP identified a tentative levee alignment which would allow the Facility's continuous use of the sludge lagoons for the dewatering treatment process. The eastern terminus alignment would require the removal of some of the lagoons. In preparing the response to this comment, the Shoreline team re-engaged the City of San José staff to solicit additional information about their operations and long-term preferences. The City of San Jose is currently conducting an evaluation of the odor impacts of the Facility's operations, including the sludge lagoons, on the surrounding community and the feasibility of using other waste processing technology. Once the study is concluded, the City will be able to analyze its future operations and possibly determine whether or not it will continue to use the sludge lagoons. While the City of San José will continue to work with the Shoreline Phase I team to determine the final levee alignment, given the uncertainty surrounding the Wastewater Facility's future need for the sludge lagoons, it is speculative at this time to consider the suggested eastern terminus alignment as a feasible alternative for further review in the Integrated Document.

However, should the eastern terminus alignment become possible in the future, the Shoreline Phase I team would evaluate the feasibility of incorporating this alternative in the final project design and, if necessary, would conduct additional environmental review.

I.4.2 Artesian Slough

This master response addresses the following comments: 022_ SCVAS_2-4; 023_STB-1; and 031_EPA_2-14.

Some commenters expressed concern about the proposed flood gate across Artesian Slough and that an alternative levee around Artesian Slough was eliminated from environmental review. Concerns include:

- Whether closing flood gates downstream of the Wastewater Facility's effluent discharge is feasible
- Impacts to the Wastewater Facility's treatment process
- Conversion of aquatic habitat in Artesian Slough due to freshwater discharges from the Wastewater Facility or adding an obstruction in the slough that may alter the salinity
- Direct fill of Artesian Slough for the tide gate.

As stated in the draft Integrated Document, the measure that includes constructing levees up either side of Artesian Slough to high ground was not carried forward for further analysis because "it is less economically efficient than the tide gate measure and did not provide any additional advantages relative to the other criteria." Additional analysis was conducted on the alternative to extend levees down both sides of Artesian Slough (as depicted in Figure I-2 *Potential Artesian Slough Crossing Options*) that was not included in the draft Integrated Document.

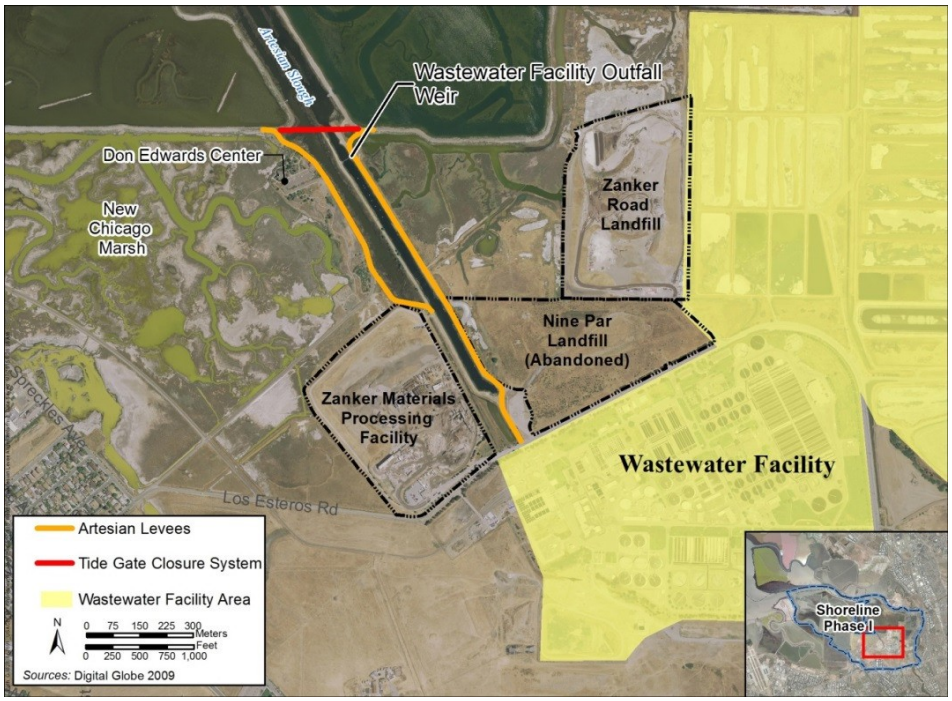


Figure I-2. Potential Artesian Slough Crossing Options

An EIR/EIS must describe a reasonable range of alternatives (CEQA Guidelines, section 15126.6(a); 40 C.F.R. 1502.14). The range of alternatives to be analyzed are those that could feasibly attain most of the basic objectives of the project while avoiding or substantially lessening any of the significant effects of the project (CEQA Guidelines, section 15126.6(a)). Similarly, under NEPA, alternatives with more significant effects than the proposed action need not be evaluated in an EIS (see for example, Roosevelt Campobello International Park Commission v. EPA, 684 F.2d 1041 (1st Cir. 1982)).

An alternative with levees down both sides of Artesian Slough would require the construction of a levee that would run along the south side of New Chicago Marsh to high ground associated with the Zanker Materials Processing Facility and a levee along the eastern side back to Pond A18. Such levees would require fill either into Artesian Slough, New Chicago Marsh, and/or the wetlands just to the east of this potential alignment. A preliminary analysis found that approximately 3.6 acres of fill would be required to accommodate the levees. The tide gate closure structure across Artesian Slough included as part of the USACE's National Economic Development (NED) and the non-Federal sponsors' Locally Preferred Plan (LPP; Recommended Plan) would result in approximately 1.1 acres of fill to Artesian Slough. Since the tide gate requires less fill of wetlands and waters it was considered the preferred alternative for protecting Artesian Slough from tidal flooding.

In addition to the amount of fill that would result from constructing the Artesian Slough levees, the levees would greatly interfere with Wastewater Facility utilities that exist in the proposed levee footprint (Figure I-3 *Existing Wastewater Facility Utilities*), increase the amount of levee material required by the Shoreline Phase I project which would result in increase in air quality and noise impacts, and potentially pose additional water quality concerns with bringing the levees to the base of existing and past landfills.

Artesian Slough is divided in half for 1,000 feet at its southern end by an earthen berm. The eastern channel is used by the Wastewater Facility as part of its discharge and both sides are lined with pipes, monitoring and water treatment equipment, and electrical systems. In addition, there is a weir across this channel to manage flows for the Wastewater Facility. The construction of flood protection levees on top of these utilities would likely require re-location of all these services and could fundamentally alter the current operations of the Wastewater Facility.

Figure I-3. Existing Wastewater Facility Utilities

Many of the concerns raised about the proposed tide gates centered on potential impacts to discharge from the Wastewater Facility and obstruction of flows in the slough. The analysis provided in the draft Integrated Document is based on information existing at the time of review. More details will be developed based on continuing technical discussions with City of San Jose staff as to how the Wastewater Facility is expected to operate in the future. However, the basic premise of the tide gate is a technically sound method to allow regular flows in Artesian Slough and secondary channel while blocking extreme tides that could flood adjacent upland areas. The proposed tide gate closure structure across the Artesian Slough is based on top-hinged traditional tide gates similar to the structure in place at the Palo Alto flood basin. This type of tide gates open when the force on the gate's upstream side, exceeds the force on the downstream side of the gate. Under varying tide and storm conditions (i.e., normal, the 10- and 100-year tide conditions), the proposed tide gates are open fully during low tides and nearly closed during high tide conditions. During low tide, the tide gates would remain fully open and the water surface elevation in Artesian Slough would reach an equilibrium level, such that the flow through the gates balances the Wastewater Facility effluent. During high tide, the gates would remain only partially open because the water surface elevation on the downstream side of the gates would be greater than the water surface elevation on the upstream side of the gates, allowing less effluent flow through the gates (i.e., during high tide some of the Wastewater Facility effluent would be stored temporarily in Artesian slough until the tide begins to drop). The proposed tide gate across the secondary channel is based on traditional flap gates, whereby the gates remain open under normal, low tide and high tide conditions, to allow flows in and out of the channel. During an extreme tidal or storm event, the gates would be closed because the downstream tidal water surface elevation would be greater than the upstream side and would prevent tidal flows from flowing inland.

The Shoreline Phase I Study team determined that a tide gate at Artesian Slough was the environmentally preferred concept based on currently available information. Additional information has been added to Chapter 3 of the Integrated Document to provide additional details about the flood gate.

I.4.3 USACE Planning Modernization Initiative

This master response addresses the following comments: 028_CCCR.SFB_3-1; 028_CCCR.SFB_3-11; 028_CCCR.SFB_3-42; 032_BCC_2-1.

Some reviewers found the Integrated Document to be "unwieldy" and that the document impeded the public's ability to provide substantive comments. One commenter noted that "Information regarding the project description, project impacts, and proposed mitigation measures are interspersed with economic analyses and rationale pertinent to the USACE, but not pertinent to the NEPA and CEQA process." It was also recommended that the draft EIS/EIR should be revised and re-circulated as a stand-alone document separate from the USACE's Interim Feasibility Report.

The USACE's Planning Modernization initiative under its Civil Works Transformation program requires the USACE to develop integrated feasibility reports and NEPA documents. Integrated

documents have also been required by USACE South Pacific Division policy since 2010. In order to improve the readability and navigability of the integrated document, the Final report includes an annotated table of contents that provides an overview of the information included in each chapter, and indicates where to find information pertaining to the USACE planning process and NEPA/CEQA process.

I.4.4 Section 1025 of Water Resources Reform and Development Act (WRRDA) of 2014

This master response addresses the following comments: 027_RWQCB_2-27; 030_SJ-6; 031_EPA_2-1; 031_EPA_2-2; 031_EPA_2-13; 032_BCC_2-4.

The Regional Water Quality Control Board staff, in addition to the U.S. Environmental Protection Agency, Region IX and the Baylands Conservation Committee, encouraged the USACE to pursue federal funding of all ecosystem restoration elements of the Project, "since full implementation of 2,800 acres of tidal marsh restoration and ecotone restoration are likely to be necessary to provide appropriate mitigation for impacts to waters of the State." In addition, it was recommended that the document also clarify exactly what mitigation components the USACE would be assuming full responsibility for.

The USACE signed implementation guidance for WRRDA 2014, Section 1025 on 26 February 2015, which allows it to recommend a USACE project that includes the implementation of ecosystem restoration on USFWS lands. The guidance outlines processing requirements that would allow the Secretary of the Army to recommend USACE implementation on Federal lands acquired through non-Federal funds. For this project, these requirements include a memorandum of understanding between the USFWS and the non-Federal sponsors, documentation of land acquisition by the non-Federal sponsors, and other documentation supporting USACE implementation.

The Final EIS has been revised to reflect this guidance, and explain the implementation responsibilities of the Federal and non-Federal entities, including schedule, cost/funding, construction, monitoring and adaptive management, and operation and maintenance. This information is provided in Chapter 9 *Findings and Recommended Plan* and summarized in the Executive Summary.

I.5 Individual Comments and Responses

Public comments and the responses to those comments are presented in this section.

001_BCC

From: Emily Renzel <marshmama2@att.net>
Sent: Wednesday, January 28, 2015 2:49 PM
To: Shoreline Environment SPN; MichaelMartin@valleywater.org; Brenda.Buxton@scc.ca.gov
Subject: [EXTERNAL] Please extend the comment period

Dear Commander Morrow, Ms. Buxton, and Mr. Martin:

Please extend the comment period for the South Bay Bay Shoreline Study EIS/EIR for at least another 30 days.

The EIS/EIR is at least 1,000 pages and there are over 2,000 additional pages of appendices. For those of us who are volunteers and indeed for public agencies, a 45-day comment period is very challenging to properly review and develop substantive comments. Flood control is important, but it is also crucial that the environment be protected, especially the adjacent high value resources of the Don Edwards San Francisco Bay National Wildlife Refuge, Coyote Creek and the surrounding wetland areas. 1

Please extend the comment period.

Sincerely,
Emily M. Renzel, Coordinator
Baylands Conservation Committee
1056 Forest Avenue
Palo Alto, CA 94301

002_CCCR

From:	CCCR <cccrrefuge@gmail.com>
Sent:	Monday, January 26, 2015 12:51 AM
To:	Shoreline Environment SPN; bbuxton@scc.ca.gov; MichaelMartin@valleywater.org
Cc:	anne_morkill@fws.gov; joseph_terry@fws.gov; Brush.Jason@epamail.epa.gov; Arthur Feinstein; Deb Self; jmiller@biologicaldiversity.org
Subject:	[EXTERNAL] Citizens Committee to Complete the Refuge request for 30-day extension of comment period for Shoreline Study Phase I EIS/EIR
Attachments:	request for time extension.pdf

Dear Commander Morrow, Ms. Buxton, and Mr. Martin,

Please find attached a request from CCCR for a 30-day time extension of the public comment period for the Shoreline Study Phase I EIS/EIR.

We would appreciate a response at your earliest convenience.

Sincerely,

Carin HIgh

CITIZENS COMMITTEE TO COMPLETE THE REFUGE

453 Tennessee Lane, Palo Alto, CA 94306 Tel: 650-493-5540 www.bayrefuge.org cccrrefuge@gmail.com

Commander John C. Morrow
U.S. Army Corps of Engineers San Francisco District
1455 Market St.
San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

January 26, 2015

Brenda Buxton
California Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, California 94612
bbuxton@scc.ca.gov

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 94118-3686
MichaelMartin@valleywater.org

Request sent via email

RE: Request for time extension for the submittal of comments regarding the Draft Interim Feasibility Report and Environment Impact Statement (EIS)/ Report (EIR), South San Francisco Bay Shoreline Phase I Study Santa Clara County, CA

Dear Commander Morrow, Ms. Buxton, and Mr. Martin,

The Citizens Committee to Complete the Refuge requests at minimum, a 30-day time extension of the public comment period for the above named EIS/EIR. The CCCR is a stakeholder for the South Bay Salt Pond Restoration Project and has been following this project over the course of a decade. We have participated in public update meetings and provided comments over the course of this time including scoping comments. We have never however, had the opportunity to review the identification, analysis, and proposed mitigation or the rationale to support the selection of alternatives and proposed mitigation in any detail.

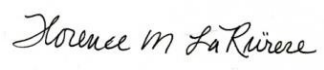
1

The EIS/EIR alone is over 1,000 pages in length and there are nearly 2,050 additional pages of appendices. A 45-day time frame is simply inadequate for any member of the public, or other agency in fact, to review and provide substantive comments. While everyone recognizes the need for flood control, it is also crucial that the environment is protected, especially the adjacent high value resources of the Don Edwards San Francisco Bay National Wildlife Refuge, Coyote Creek and the surrounding wetland areas. We need additional time to review

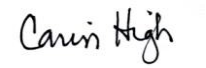
and analyze the impacts of the proposed project and to consider the adequacy of the mitigation measures as proposed.

We recognize that there might be time frames involved for funding authorizations, however, the public must be given adequate time to review and provide substantive comments on this massive environmental review document. Given the rapidly approaching deadline, we would appreciate a reply as soon as possible.

Sincerely,



Florence LaRiviere
CCCR Chairperson



Carin High
CCCR Vice Chair

cc: Anne Morkill, USFWS
Joesph Terry, USFWS
Jason Brush, EPA
Arthur Feinstein, CCCR/Sierra Club
Deb Self, SFB Baykeeper
Jeff Miller, Center for Biological Diversity

From: Alice Kaufman <alice@greenfoothills.org>
Sent: Wednesday, January 28, 2015 5:15 PM
To: Shoreline Environment SPN; Brenda.Buxton@scc.ca.gov; MichaelMartin@valleywater.org
Subject: [EXTERNAL] Request for extension of time - South Bay Shoreline Study EIS
Attachments: South Bay Shoreline Study EIS - request for extension of time.docx

Attached is Committee for Green Foothills' request for extension of time for public comment regarding the South Bay Shoreline Study EIS/EIR.

Thank you for your consideration of this request.

Alice Kaufman
Legislative Advocate, Committee for Green Foothills
650-968-7243 x. 313
3921 East Bayshore Road
Palo Alto, CA 94303
www.greenfoothills.org

Deep Roots, Green Future

COMMITTEE FOR
GREEN FOOTHILLS

February 8, 2015

Commander John C. Morrow
U.S. Army Corps of Engineers, San Francisco District
1455 Market St.
San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

Brenda Buxton
California Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, California 94612
Brenda.Buxton@scc.ca.gov

Michael Martin
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 94118-3686
MichaelMartin@valleywater.org

Re: Environmental Impact Statement/Report (EIS/EIR) South San Francisco Bay Shoreline Phase I Study

Dear Commander Morrow, Ms. Buxton, and Mr. Martin,

This is a request for a 30-day extension of time for submission of public comments for the above-referenced EIS/EIR. Currently, the public comment period closes on February 2, 2015. We are requesting that this period be extended to at least March 4, 2015.

The EIS/EIR is over 1,000 pages long, and the attached appendices total over 2,000 additional pages. Given the unusually lengthy documentation and the size and significance of the proposed project, we believe it is appropriate for your agencies to grant additional time for the public to review and comment on this important project. 1

Thank you for your consideration of this request.

Sincerely,

Alice Kaufman
Legislative Advocate, Committee for Green Foothills

COMMITTEE FOR GREEN FOOTHILLS
3921 E. Bayshore Road
Palo Alto, CA 94303
650.968.7243 PHONE
650.968.8431 FAX
info@GreenFoothills.org
www.GreenFoothills.org

From: Munson, James <MUNSON.JAMES@EPA.GOV>
Sent: Monday, January 12, 2015 9:53 AM
To: DeJager, William R SPN
Cc: Shoreline Environment SPN
Subject: [EXTERNAL] RE: SOUTH SAN FRANCISCO BAY SHORELINE STUDY PHASE 1 (ALVISO PONDS AND SANTA CLARA COUNTY INTERIM FEASIBILITY STUDY)

Mr. Dejager,

Looks like I have sent this initially to the wrong email for you…

"I will be the lead EPA reviewer for this project. Thank you for providing a copy of the DEIS. We did receive it yesterday, however, due to the fact that the document is over 2000 pages with the appendices and we have multiple associate reviewers, EPA is requesting a 20 day time extension of the review period so we can give the document a proper 45 day review.

Awaiting your response and thank you for your time,"

James M. Munson, CFM
Environmental Protection Specialist
Enforcement Division, NEPA Section
U.S. EPA, Region IX
75 Hawthorne Street ENF- 4-2
San Francisco, Ca 94105
(415) 972-3852, Fax: (415) 947-8026

From: Munson, James
Sent: Friday, January 09, 2015 4:19 PM
To: 'William.r.dejager@spd02.usace.army.mil'
Cc: 'ShorelineEnvironment@usace.army.mil'
Subject: SOUTH SAN FRANCISCO BAY SHORELINE STUDY PHASE 1 (ALVISO PONDS AND SANTA CLARA COUNTY INTERIM FEASIBILITY STUDY)

Mr. DeJager,

I will be the lead EPA reviewer for this project. Thank you for providing a copy of the DEIS. We did receive it yesterday, however, due to the fact that the document is over 2000 pages with the appendices and we have multiple associate reviewers, EPA is requesting a 20 day time extension of the review period so we can give the document a proper 45 day review. 1

Awaiting your response and thank you for your time,

James M. Munson, CFM
Environmental Protection Specialist
Enforcement Division, NEPA Section
U.S. EPA, Region IX
75 Hawthorne Street ENF- 4-2

San Francisco, Ca 94105
(415) 972-3852, Fax: (415) 947-8026

005_Feinstein

From: Feinstein Arthur <arthurfeinstein@earthlink.net>
Sent: Wednesday, January 28, 2015 10:34 PM
To: Shoreline Environment SPN; Brenda.Buxton@scc.ca.gov; MichaelMartin@valleywater.org
Subject: [EXTERNAL] Request for extension of comment period for South Bay Shoreline Study EIS
Attachments: South Bay Study EIS ltr.docx

Commander John C. Morrow, U.S. Army Corps of Engineers San Francisco District 1455 Market St. San Francisco, CA 94103 ShorelineEnvironment@usace.army.mil

Brenda Buxton, California Coastal Conservancy 1330 Broadway, 11th Floor Oakland, California 94612; Brenda.Buxton@scc.ca.gov

Michael Martin, Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 94118-3686; MichaelMartin@valleywater.org

RE: Request for time extension for the submittal of comments regarding the Draft Interim Feasibility Report and Environment Impact Statement (EIS)/ Report (EIR), South San Francisco Bay Shoreline Phase I Study Santa Clara County, CA

Dear Commander Morrow, Ms. Buxton, and Mr. Martin:

I send this email in request that you extend the comment period for the above referenced EIS for at least another 30 days.

I have been a participant in the South Bay Salt Pond Project (SBSP) since its inception (actually as an advocate, even before in helping to acquire those lands under consideration in the South San Francisco Bay Shoreline Study.

I have been a member of the SBSP Stakeholder Group also since its inception. As I am sure you are all aware, this issue is one of the most complex facing the Bay Area. This is reflected in the large size of the EIS for Phase 1 Study of the above referenced project.

I think it is incumbent upon you to give the public adequate time to study the EIS and submit comments. Failure to do so only makes its public acceptance more difficult.

Considering how long it has taken the agencies to develop this EIS, it seems unfair to give the public such a short timeline to analyze it.

I appreciate all the work that is being done to protect the South Bay while preserving its ecological health. Let's not undermine it with hasty actions.

Sincerely yours,

Arthur Feinstein

Commander John C. Morrow,U.S. Army Corps of Engineers San Francisco District 1455 Market St.San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

Brenda Buxton,California Coastal Conservancy 1330 Broadway, 11th Floor Oakland, California 94612
Brenda.Buxton@scc.ca.gov

Michael Martin, Santa Clara Valley Water District 5750 Almaden ExpresswaySan Jose, CA 94118-3686
MichaelMartin@valleywater.org

RE: Request for time extension for the submittal of comments regarding the Draft Interim Feasibility Report and Environment Impact Statement (EIS) / Report (EIR), South San Francisco Bay Shoreline Phase I Study Santa Clara County, CA

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Sincerely yours,

Arthur Feinstein

006_Leddy

From: Matt Leddy <mtleddy@sbcglobal.net>
Sent: Wednesday, January 28, 2015 6:23 PM
To: Shoreline Environment SPN; Brenda.Buxton@scc.ca.gov; MichaelMartin@valleywater.org
Subject: [EXTERNAL] Request for Comment Period Extension - Shoreline Phase 1 Project

January 26, 2015

Commander John C. Morrow
U.S. Army Corps of Engineers San Francisco District
1455 Market St. San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

Brenda Buxton California
Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, California 94612
Brenda.Buxton@scc.ca.gov

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 94118-3686
MichaelMartin@valleywater.org

Request sent via email

RE: Request for time extension for the submittal of comments regarding the South San Francisco Bay Shoreline Phase 1 Project Draft Integrated Feasibility Report and Environment Impact Statement (EIS)/ Report (EIR)

Dear Commander Morrow, Ms. Buxton, and Mr. Martin,

I am requesting a 30-day time extension for the public comment period for the Shoreline Phase 1 Project Feasibility Report and Draft EIS/EIR for the following reasons:

1. The Draft Integrated Feasibility Report and Environmental Impact Statement / Report is 1,022 pages long, with over 2,000 pages in the supporting documents. I have been working on comments, but because of the length of the report, much more time is needed. The contents of the report are too important to be rushed through the public comment period. Even with a 30-day extension, it will be challenging for people to read and evaluate the contents of this document. 1

2. Looking at the official webpage for the Project, (http://www.southbayshoreline.org/), members of the public would not even be aware that they can submit written comments on the Draft EIS/EIR, or any information on how and to whom

comments should be submitted.

2. There are eighteen pre-written questions on the website's Frequently Asked Questions page (http://www.southbayshoreline.org/faq.html), and not one of them includes the question, "How do members of the public comment on the Draft EIS/EIR?" Even if people do know that they can submit written comments, they don't know where or to whom those comments should be directed.

3. Under "News" on the Project website home page, the public is directed to links for both the SCVWD and USACE for information on the "draft Shoreline Study and environmental analysis document", but neither site provides information on how and where to submit written comments.

4. A flyer provided at the January 15, 2015 Public Hearing, which I attended, included information on how and where written comments could be submitted, but this was provided to the public when only 19 days remained for review and comment on this very large and complex document.

For all of the reasons outlined above, I respectfully request that the deadline for submission of written comments be extended for at least 30 days, and that the specific information needed for the public to submit written comments be prominently posted on the Shoreline Project, SCVWD and USACE websites.

Thank you in advance for ensuring that the public receives adequate notification and opportunity to submit written comments on these important documents.

Sincerely,

Matthew Leddy

mtleddy@sbcglobal.net
275 D Street, Redwood City CA 94063

007_RWQCB

From: Wines, Brian@Waterboards <Brian.Wines@waterboards.ca.gov>
Sent: Wednesday, January 21, 2015 11:38 AM
To: Shoreline Environment SPN
Cc: Lichten, Keith@Waterboards; Bowyer, Dale@Waterboards; valiela.luisa@epa.gov
Subject: [EXTERNAL] Request to Extend Comment Period for South San Francisco Bay Shoreline DEIS by 3 weeks

HI Mr. DeJager

This email is a follow-up to my voicemail today.

Water Board staff only learned today that the DEIS/DEIR for the SSF Bay Shoreline had been posted for public review.

Since Water Board staff had met with SSF Bay Shoreline Project staff in late 2014 to discuss Water Board permitting concerns, we were hoping to receive notification when the DEIS/EIR was released for comment. But we did not receive notification from the Corps or the State Clearinghouse.

Also, it was not easy for us to find the DEIS/EIR on the Corps website. It does not appear in the public notices for 2014 – 2015 menu. And the FOIA Hot Topics links for the project do not make it clear that the posting includes a DEIS. None of the links to documents actually contain "DEIS"; it was only by opening the links that it became clear that one of the documents was the DEIS/EIR. 1

Since the comment period closes on Feb. 2, 2015, it will not be possible to for Water Board staff to perform an adequate review and prepare comments in less than a week. Do to the size of the DEIS/EIR and the complexity of the project, we 2 would like the comment period to be extended by 3 weeks.

Thanks for your consideration.

Brian Wines
Water Resources Control Engineer
San Francisco Bay Regional Water Quality Control Board
510-622-5680

008_SCVAS

From: shani kleinhaus <shani@scvas.org>
Sent: Wednesday, January 28, 2015 9:46 PM
To: Shoreline Environment SPN; Brenda.Buxton@scc.ca.gov; MichaelMartin@valleywater.org
Subject: [EXTERNAL] SCVAS request for a 30-day time extension for submittal of comments for the South Bay Shoreline Study EIS/EIR
Attachments: Request for Extension - Shoreline levee.pdf

Dear Commander Morrow, Ms. Buxton and Mr. Martin,

Please find attached Santa Clara Valley Audubon Society's request for a 30-day time extension for submittal of comments for the South Bay Shoreline Study EIS/EIR

Thank you,

Shani Kleinhaus, Ph.D.
Environmental Advocate
Santa Clara Valley Audubon Society
22221 McClellan Rd. Cupertino 95014
Tel. (650) 868 2114
shani@scvas.org

Santa Clara Valley Audubon Society

January 22nd, 2015 *via email*

Commander John C. Morrow
U.S. Army Corps of Engineers San Francisco District
1455 Market St.
San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

Brenda Buxton
California Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, California 94612
Brenda.Buxton@scc.ca.gov

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 94118---3686
MichaelMartin@valleywater.org

RE: Request for time extension for the submittal of comments regarding the Draft Interim Feasibility Report and Environment Impact Statement (EIS)/ Report (EIR), South San Francisco Bay Shoreline Phase I Study Santa Clara County, CA

Dear Commander Morrow, Ms. Buxton, and Mr. Martin,

The Santa Clara Valley Audubon Society is requesting a 30---day time extension of the public comment period for the Shoreline Study EIS/EIR. Our organization actively reviews all development plans along the South San Francisco Bay Shoreline.

We recognize the concern of providing flood protection, however, numerous species of concern occur within the project footprint and vicinity, and the forty---five day time frame is far too short for substantive review of this document of nearly 3,000 pages.

1

22221 McClellan Road, Cupertino, CA 95014 Phone: (408) 252-3748 * Fax: (408) 252-2850
email: scvas@scvas.org * www.scvas.org

We believe the request for a 30---day time extension is very reasonable given the overwhelming size of this document and the resources that may be impacted by the proposed project.

Sincerely,

Shani Kleinhaus, Ph.D.
Environmental Advocate

22221 McClellan Road, Cupertino, CA 95014 Phone: (408) 252-3748 * Fax: (408) 252-2850
email: scvas@scvas.org * www.scvas.org

From: Sejal Choksi <sejal@baykeeper.org>
Sent: Wednesday, January 28, 2015 6:03 PM
To: Shoreline Environment SPN; MichaelMartin@valleywater.org; Brenda.Buxton@scc.ca.gov
Cc: Ian Wren
Subject: [EXTERNAL] Baykeeper requests extension for shoreline study Phase 1 public comment period
Attachments: 2015.1.28 BK Request for extension.pdf

Dear Mr. Martin, Ms. Buxton, and Commander Morrow,

Please see attached letter requesting an extension for the public comment period that is currently set to close on February 2, 2015.

We appreciate your thoughtful consideration of this matter.

Thanks,
Sejal

Sejal Choksi-Chugh
Program Director
San Francisco Baykeeper 1736
Franklin Street Suite 800
Oakland, CA 94612
510-735-9700 x107

Protecting San Francisco Bay since 1989 www.baykeeper.org
Follow us on Twitter: @sejalc and @SFBaykeeper

January 28, 2015

Commander John C. Morrow
U.S. Army Corps of Engineers San Francisco District
1455 Market St.
San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

Brenda Buxton
California Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, California 94612
Brenda.Buxton@scc.ca.gov

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 94118-3686
MichaelMartin@valleywater.org

RE: Request for time extension for public comment on the Draft Interim Feasibility Report and Environment Impact Statement (EIS)/ Report (EIR), South San Francisco Bay Shoreline Phase I Study Santa Clara County, CA

Dear Commander Morrow, Ms. Buxton, and Mr. Martin:

On behalf of San Francisco Baykeeper and our over 3,000 members who use and enjoy the environmental, recreational, and aesthetic qualities of San Francisco Bay and its surrounding tributaries and ecosystems, we respectfully submit this request for an extension of the public comment period. We are requesting at minimum, a 30-day time extension of the public comment period for the above named EIS/EIR.

The EIS/EIR is over 1,000 pages in length and there are nearly 2,050 additional pages of appendices. A 45-day time frame is insufficient for any member of the public, or other agency in fact, to review and provide substantive comments. We recognize the need for flood control, however we feel that given the proximity to the Don Edwards San Francisco Bay National Wildlife Refuge as well as Coyote Creek on top of the wetland areas mean that environmental protection is even more crucial than ever in this case. The environmental community needs additional time to review and analyze the impacts of the proposed project and to consider the adequacy of the mitigation measures as proposed. 1

We strongly believe that the public must be given this additional time to adequately review and provide comments on this document. Given the approaching deadline, we would appreciate a reply as soon as possible.

Sincerely,

Sejal Choksi-Chugh
Program Director

ID	Issue Text	Response Text
001_BCC-1	Please extend the comment period for the South Bay Shoreline Study EIS/EIR for at least another 30 days. The EIS/EIR is at least 1,000 pages and there are over 2,000 additional pages of appendices. For those of us who are volunteers and indeed for public agencies, a 45-day comment period is very challenging to properly review and develop substantive comments. Flood control is important, but it is also crucial that the environment be protected, especially the adjacent high value resources of the Don Edwards San Francisco Bay National Wildlife Refuge, Coyote Creek and the surrounding wetland areas. Please extend the comment period.	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.
002_CCCR-1	Please find attached a request from CCCR for a 30-day time extension of the public comment period for the Shoreline Study Phase I EIS/EIR. We would appreciate a response at your earliest convenience.	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.
003_CGF-1	This is a request for a 30-day extension of time for submission of public comments for the above referenced EIS/EIR. Currently, the public comment period closes on February 2, 2015. We are requesting that this period be extended to at least March 4, 2015.The EIS/EIR is over 1,000 pages long, and the attached appendices total over 2,000 additional pages. Given the unusually lengthy documentation and the size and significance of the proposed project, we believe it is appropriate for your agencies to grant additional time for the public to review and comment on this important project. Thank you for your consideration of this request.	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.
004_EPA-1	I will be the lead EPA reviewer for this project. Thank you for providing a copy of the DEIS. We did receive it yesterday, however, due to the fact that the document is over 2000 pages with the appendices and we have multiple associate reviewers, EPA is requesting a 20 day time extension of the review period so we can give the document a proper 45 day review. Awaiting your response and thank you for your time,	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.
005_Feinstein-1	I send this email in request that you extend the comment period for the above referenced EIS for at least another 30 days. I have been a participant in the South Bay Salt Pond Project (SBSP) since its inception (actually as an advocate, even before in helping to acquire those lands under consideration in the South San Francisco Bay Shoreline Study. I have been a member of the SBSP Stakeholder Group also since its inception. As I am sure you are all aware, this issue is one of the most complex facing the Bay Area. This is reflected in the large size of the EIS for Phase 1 Study of the above referenced project. I think it is incumbent upon you to give the public adequate time to study the EIS and submit comments. Failure to do so only makes its public acceptance more difficult. Considering how long it has taken the agencies to develop this EIS, it seems unfair to give the public such a short timeline to analyze it. I appreciate all the work that is being done to protect the South Bay while preserving its ecological health. Let's not undermine it with hasty actions.	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.
006_Leddy-1	I am requesting a 30-day time extension for the public comment period for the Shoreline Phase 1 Project Feasibility Report and Draft EIS/EIR for the following reasons: 1. The Draft Integrated Feasibility Report and Environmental Impact Statement / Report is 1,022 pages long, with over 2,000 pages in the supporting documents. I have been working on comments, but because of the length of the report, much more time is needed. The contents of the report are too important to be rushed through the public comment period. Even with a 30-day extension, it will be challenging for people to read and evaluate the contents of this document. 2. Looking at the official webpage for the Project, (http://www.southbayshoreline.org/), members of the public would not even be aware that they can submit written comments on the Draft EIS/EIR, or any information on how and to whom comments should be submitted. 2. There are eighteen pre-written questions on the website's Frequently Asked Questions page (http://www.southbayshoreline.org/faq.html), and not one of them includes the question, "How do members of the public comment on the Draft EIS/EIR?" Even if people do know that they can submit written comments, they don't know where or to whom those comments should be directed. 3. Under "News" on the Project website home page, the public is directed to links for both the SCVWD and USACE for information on the "draft Shoreline Study and environmental analysis document", but neither site provides information on how and where to submit written comments. 4. A flyer provided at the January 15, 2015 Public Hearing, which I attended, included information on how and where written comments could be submitted, but this was provided to the public when only 19 days remained for review and comment on this very large and complex document. For all of the reasons outlined above, I respectfully request that the deadline for submission of written comments be extended for at least 30 days, and that the specific information needed for the public to submit written comments be prominently posted on the Shoreline Project, SCVWD and USACE websites. Thank you in advance for ensuring that the public receives adequate notification and opportunity to submit written comments on these important documents.	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.

007_RWQCB-1	1 This email is a follow-up to my voicemail today. Water Board staff only learned today that the DEIS/DEIR for the SSF Bay Shoreline had been posted for public review. Since Water Board staff had met with SSF Bay Shoreline Project staff in late 2014 to discuss Water Board permitting concerns, we were hoping to receive notification when the DEIS/EIR was released for comment. But we did not receive notification from the Corps or the State Clearinghouse. Also, it was not easy for us to find the DEIS/EIR on the Corps website. It does not appear in the public notices for 2014 – 2015 menu. And the FOIA Hot Topics links for the project do not make it clear that the posting includes a DEIS. None of the links to documents actually contain “DEIS”; it was only by opening the links that it became clear that one of the documents was the DEIS/EIR.	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.
008_SCVAS-1	The Santa Clara Valley Audubon Society is requesting a 30-day time extension of the public comment period for the Shoreline Study EIS/EIR. Our organization actively reviews all development plans along the South San Francisco Bay Shoreline. We recognize the concern of providing flood protection, however, numerous species of concern occur within the project footprint and vicinity, and the forty-five day time frame is far too short for substantive review of this document of nearly 3,000 pages. We believe the request for a 30-day time extension is very reasonable given the overwhelming size of this document and the resources that may be impacted by the proposed project.	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.
009_SFB-1	On behalf of San Francisco Baykeeper and our over 3,000 members who use and enjoy the environmental, recreational, and aesthetic qualities of San Francisco Bay and its surrounding tributaries and ecosystems, we respectfully submit this request for an extension of the public comment period. We are requesting at minimum, a 30-day time extension of the public comment period for the above named EIS/EIR. The EIS/EIR is over 1,000 pages in length and there are nearly 2,050 additional pages of appendices. A 45-day time frame is insufficient for any member of the public, or other agency in fact, to review and provide substantive comments. We recognize the need for flood control, however we feel that given the proximity to the Don Edwards San Francisco Bay National Wildlife Refuge as well as Coyote Creek on top of the wetland areas mean that environmental protection is even more crucial than ever in this case. The environmental community needs additional time to review and analyze the impacts of the proposed project and to consider the adequacy of the mitigation measures as proposed. We strongly believe that the public must be given this additional time to adequately review and provide comments on this document. Given the approaching deadline, we would appreciate a reply as soon as possible.	Thank you for your interest in reviewing the Shoreline Phase I Study Integrated Document. The comment period was extended by three weeks for a total of 60 days for review and comment submittal.

From: Zsutty, Yves <Yves.Zsutty@sanjoseca.gov>
Sent: Thursday, January 15, 2015 12:42 PM
To: Shoreline Environment SPN; bbuxton@scc.ca.gov
Subject: [EXTERNAL] Comments: City of San Jose / Dept of Parks Recreation and Neighborhood Services
Attachments: City of San Jose PRNS comments 2015 01 15.doc

Yves Zsutty, Trail Manager

City of San Jose - Trail Program
Parks Recreation and Neighborhood Services
200 East Santa Clara Street, 9th Floor
San Jose, CA 95113
408 793 5561, fax 408 292 6416

Trail Program homepage
Twitter SanJoseTrails
Park/Trail Concerns email

Comments
South San Francisco Bay Shoreline Study Draft Feasibility/Environmental Document

Submitted by:
City of San Jose
Department of Parks Recreation and Neighborhood Services
200 East Santa Clara Street, 9th Floor
San Jose, CA 95113
Yves Zsutty, Trail Manager, 408 793 5561
Yves.zsutty@sanjoseca.gov

Thank you for the opportunity to review and provide comment. I'd like to offer the following input about the draft study.

Section 4.9.1. When referring to Highway 237, please also indicate that the adjacent bikeway follows the north and/or south sides of the highway and provides limited bike access to project area. 1

Figure 4.9.1. Update to show the Highway 237 Bikeway on both sides of freeway. The paved bikeway extends from east of Zanker Road to McCarthy Road. 2

Section 4.9.1.1.2.3. Also note the following General Plan goals and policies: 3

- Goal PR-1 – High Quality Facilities and Programs
- Provide park lands, trails, open space, recreation amenities, and programs, nationally recognized for their excellence, which enhance the livability of the urban and suburban environments; preserve significant natural, historic, scenic and other open space resources; and meet the parks and recreation services needs of San José's residents, workers, and visitors.
- PR-1.11 Develop an integrated parks system that connects new and existing large parks together through a network of interconnected trails and/or bike lanes/routes.
- Goal PR-3 – Provide an Equitable Park System
- Create a balanced park system that provides all residents access to parks, trails, open space,
- PR-6.7 In design and construction, consider the role of parks, trails, and open space in preserving, enhancing, or restoring existing ecosystems/wildlife habitat, where appropriate.
- PR-7.1 Encourage non-vehicular transportation to and from parks, trails, and open spaces by developing trail and other pleasant walking and bicycle connections to existing and planned urban and suburban parks facilities.

Section 4.9.1.2.3. In discussion about "Class I Multi-Use Paths", include sentence, "The City of San Jose commonly refers to these Class I facilities as Trails". 4

The "Class I Bicycle Path" along Highway 237 is noted in this section but doesn't describe the entire alignment. The link leads to a map of the entire Highway 237 Bikeway in its current form: http://www.sanjoseca.gov/index.aspx?nid=2835 Please update section to accurately show this facility. 5

Section 4.11.1.1.3. Perhaps not here, but somewhere in this section, there should be acknowledgement of the City of San Jose's Bay Trail Master Plan. That planning document governs our approach to trail development in the shoreline area. 6

Figure 4.11-1. The red dotted line identifies an "Existing Surface Street Trail". San Jose does not have surface street trails. It is accurate to report that this is a "Class III on-street bikeway". The map needs to be amended to show this on-street facility as being on the south side of Highway 237. There is no existing road or trail as noted on the north side of Highway 237. Refer to link to this trail system website for a map of existing facilities. San Jose is agreeable to having a future Class I trail shown on the north side of Highway 237 if space and land rights permit that to occur. 7

Supplemental Information:
San Jose's General Plan recognizes trails as part of the overall transportation system. It may be best to recognize that fact in the "Transportation" section of the study, but also direct readers to the "Recreation" section for detailed discussion. With this recognition, continue to focus trail discussion in the Recreation section.

If seeking language for the reference, be aware that the General Plan states, "Recognizing the function that trails play in the City's multi-modal transportation system, separate Trail Network Policies are included in the Land Use and Transportation section of the *Envision General Plan*. Because of their recreational component, some Policies related to trails are incorporated into this (Transportation) section as well." and "Recognizing that trails serve an important role in San José's transportation system, providing significant environmental and recreational benefit, the City has established an ambitious goal to be a national leader in the development of an urban trail system." 8

Opportunity to leverage planning and/or share resources:
Within the "Recreation" section, there should be recognition that San Jose's Guadalupe River Trail and Coyote Creek Trails terminate at the southern boundary of the study area. Per the City's General Plan, interconnection of trails is an important goal. 9

The Study should confirm that connections to these trails are to be made and locate them on the most appropriate figures.

The study proposes an elevated pedestrian bridge to span over the active railway. San Jose has spent several years (with ABAG and Federal investment) to plan, secure NEPA clearance and partially design a pedestrian bridge that will span across Alviso Slough/Lower Guadalupe River, and be parallel to the railway. There may be an opportunity for the study identify a leveraging opportunity. The study should determine 10

if it might consider use of the City's planned bridge as an alternative means along the railroad and reach the loop trails to the west. The linked page offers some information on the bridge project. http://www.sanjoseca.gov/index.aspx?nid=2772

For access to the loop trail to the east, consider the use of Gold Street as a relatively low-volume Class III facility to travel from the Lower Guadalupe River Trail to a future trail that follows the eastern edge of the railway alignment. 11

Staff is happy to respond to any questions if the study might be able to leverage this future resource and/or champion its funding. The City estimates that about $7,000,000 is required. This amount of funding is well beyond the City's Parks Budget and is not typical for regional or State grant awards. A federal source might support this project. It could be advantageous for the report to include the City's pedestrian bridge (if suitable option for the rail over-crossing) as part of the final study, and make it eligible for a Congressional funding action. 12

ID	Issue Text	Response Text
010_SJPRNS-1	Section 4.9.1. When referring to Highway 237, please also indicate that the adjacent bikeway follows the north and/or south sides of the highway and provides limited bike access to project area.	The suggested revision to Section 4.9.1 has been made. The first bullet in list has been revised as follows: “SR 237 parallels the south side of the Shoreline Phase I Study Area and is a primary route for people traveling to the Alviso and northern San José areas. Project-related transportation effects that affect mobility on SR 237, such as construction traffic entering and exiting work areas, could affect intersections on SR 237 that are used to access surrounding urban areas. An intermittent bikeway runs adjacent to SR 237 following the north and/or south sides of the highway and provides limited bike access to project area.”
010_SJPRNS-2	Figure 4.9.1. Update to show the Highway 237 Bikeway on both sides of freeway. The paved bikeway extends from east of Zanker Road to McCarthy Road.	Your comment is acknowledged. However, Table 4.9-1 and surrounding discussion is specific to vehicular traffic (i.e., doesn’t reflect any bicycle or pedestrian trails), so no change to the map itself has been made. To avoid any confusion and clarify the focus of the map, the figure title has been changed to: “Figure 4.9 1. Transportation Study Area and Vehicular Lane Configurations”.
010_SJPRNS-3	Section 4.9.1.1.2.3. Also note the following General Plan goals and policies:- Goal PR-1 – High Quality Facilities and Programs- Provide park lands, trails, open space, recreation amenities, and programs, nationally recognized for their excellence, which enhance the livability of the urban and suburban environments; preserve significant natural, historic, scenic and other open space resources; and meet the parks and recreation services needs of San José’s residents, workers, and visitors.- PR-1.11 Develop an integrated parks system that connects new and existing large parks together through a network of interconnected trails and/or bike lanes/routes.- Goal PR-3 – Provide an Equitable Park System- Create a balanced park system that provides all residents access to parks, trails, open space,- PR-6.7 In design and construction, consider the role of parks, trails, and open space in preserving, enhancing, or restoring existing ecosystems/wildlife habitat, where appropriate.- PR-7.1 Encourage non-vehicular transportation to and from parks, trails, and open spaces by developing trail and other pleasant walking and bicycle connections to existing and planned urban and suburban parks facilities.	The suggested revisions to Section 4.9.1.1.2.3 have been made. All of the General Plan goals and policies were added to the bulleted list as requested.
010_SJPRNS-4	Section 4.9.1.2.3. In discussion about “Class I Multi-Use Paths”, include sentence, “The City of San Jose commonly refers to these Class I facilities as Trails”.	Thank you for providing additional information regarding Class I facilities; the suggested revision to Section 4.9.1.2.3 has been made. The first bullet in list has been revised as follows: “Class I Multi-Use Path: a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized. The City of San Jose commonly refers to Class I facilities as “trails”.
010_SJPRNS-5	The “Class I Bicycle Path” along Highway 237 is noted in this section but doesn’t describe the entire alignment. The link leads to a map of the entire Highway 237 Bikeway in its current form: http://www.sanjoseca.gov/index.aspx?nid=2835 Please update section to accurately show this facility.	Thank you for your input regarding the status of the Hwy 237 trails. The suggested updates to Section 4.9.1.2.3 have been made. The discussion of bicycle paths has been revised as follows: “Within the transportation study area, a Class I bicycle paths exists north and south of and parallel to SR 237, starting at the Zanker Road/SR 237 westbound ramp and continuing east toward the northern stretch of Coyote Creek Trail. This approximately 5-mile stretch along Highway 237 was designated in 2009 as part of the National Recreation Trail system. In addition, the same reach along the north side of the highway has been designated as part of the San Francisco Bay Trail and the Juan Bautista De Anza National Historic Trail. Class II bike lanes connect to the Class I path at Zanker Road and progress west to 1st Street and south crossing Montague Expressway. Class II bike lanes also exist along Dixon Landing Road west of the I-880 southbound ramp. According to the City of Milpitas Bikeway Master Plan Update (Alta Planning + Design 2012), Class II bike lanes are planned along Dixon Landing Road east of the I-880 southbound ramp as well.”
010_SJPRNS-6	Section 4.11.1.1.3. Perhaps not here, but somewhere in this section, there should be acknowledgement of the City of San Jose’s Bay Trail Master Plan. That planning document governs our approach to trail development in the shoreline area.	The suggested revision to Section 4.11.1.1.3 has been made. The discussion of the San José Bay Trail master plan has been added following discussion of the Envision San José 2040 General Plan. Per information found on the City of San Jose website, the following paragraph has been added: “In 2002, San José’s City Council adopted the San José Bay Trail master plan. Once built, the San José portion of the trail will be approximately 13 miles in length and follow the shore and some roadways in Alviso (see Section 4.11.1.1.2.3 The Bay Trail for more information on the San Francisco Bay Trail Project)."
010_SJPRNS-7	Figure 4.11-1. The red dotted line identifies an “Existing Surface Street Trail”. San Jose does not have surface street trails. It is accurate to report that this is a “Class III on-street bikeway”. The map needs to be amended to show this on-street facility as being on the south side of Highway 237. There is no existing road or trail as noted on the north side of Highway 237. Refer to link to this trail system website for a map of existing facilities. San Jose is agreeable to having a future Class I trail shown on the north side of Highway 237 if space and land rights permit that to occur.	Thank you for the additional information about the City’s trail networks. Figure 4.11-1 will be changed as follows: Official Bay Trail designation (per current maps at http://baytrail.org/baytrailmap.html) will be noted with appropriate color for the Alviso Slough Trail (inside loop only), Mallard Slough Trail (around Ponds A16 and segment in Pond A17), and Alviso Marina County Park and segment down Alviso Slough/Guadalupe River to Gold Street Bridge. The gap between end of Bay Trail/Alviso Slough Trail at the railroad line and Guadalupe River Trail at the Gold Street Bridge will be shown with a dashed line. The “Existing Surface Street Trail” label in the map legend and the dashed red line in the map will be deleted. However, the “bike lanes on street” trails will not be added to map as the street bike lane system is largely south of Highway 237 and the Shoreline Study is focused on improving the trail networks closer to the project area, north of Highway 237. The Shoreline Study team will continue to work with the City of San Jose on implementing the proposed Class I bike lane on the north side of Highway 237.

010_SJPRNS-8	Supplemental Information: San Jose's General Plan recognizes trails as part of the overall transportation system. It may be best to recognize that fact in the "Transportation" section of the study, but also direct readers to the "Recreation" section for detailed discussion. With this recognition, continue to focus trail discussion in the Recreation section. If seeking language for the reference, be aware that the General Plan states, "Recognizing the function that trails play in the City's multi-modal transportation system, separate Trail Network Policies are included in the Land Use and Transportation section of the Envision General Plan. Because of their recreational component, some Policies related to trails are incorporated into this (Transportation) section as well." and "Recognizing that trails serve an important role in San José's transportation system, providing significant environmental and recreational benefit, the City has established an ambitious goal to be a national leader in the development of an urban trail system."	Chapter 4. 9 Transportation will be updated to recognize that San Jose recognizes trails as part of the overall transportation system per the General Plan language cited and will direct readers to Chapter 4.11 Recreation for further discussion.
010_SJPRNS-9	Opportunity to leverage planning and/or share resources: Within the "Recreation" section, there should be recognition that San Jose's Guadalupe River Trail and Coyote Creek Trails terminate at the southern boundary of the study area. Per the City's General Plan, interconnection of trails is an important goal. The Study should confirm that connections to these trails are to be made and locate them on the most appropriate figures.	The Guadalupe River Trail and the Coyote Creek Trail are shown on Figure 4.11-1 but the Coyote Creek Trail is just noted as "Bay Trail". This label will be changed to "Bay Trail/Coyote Creek Trail". The following sections will be added to Chapter 4.11 as "4.11.1.2.4 Adjacent Trails" in order to better describe the existing trail networks and gaps: "The Bay Trail/Coyote Creek Trail runs adjacent to Coyote Creek but does not currently directly connect with the Shoreline Study Project area. Other trails leading to the Shoreline Study area include the Guadalupe River Trail. The Guadalupe River Trail officially ends at the Gold Street Bridge. (This is also where the Guadalupe River changes its name and becomes Alviso Slough. This is why the trail downstream of here on the same river levee system is called the Alviso Slough Trail.) The City of San Jose has plans for a safe pedestrian crossing under the railroad tracks that would seamlessly connect the Guadalupe River Trail with the Alviso Slough Trail but this railroad crossing is currently not funded. Western segments of the Bay Trail currently end at Pond A8, outside of the project area. A connection through Pond A8 is planned but not currently funded. In addition to these trails, a network of street bike lanes provides bicycle connections between Coyote Creek and the Guadalupe River outside of the project area, south of Highway 237." The following sentence will be added to "4.11.1.2.3 Alviso Marina County Park" "Trails from the Marina also head south along the Alviso Slough Trail. This trail terminates at the railroad crossing. Once the Gold Street Bridge connection is completed, there will be a safe pedestrian crossing that would join the Alviso Slough Trail to the Guadalupe River Trail."
010_SJPRNS-10	The study proposes an elevated pedestrian bridge to span over the active railway. San Jose has spent several years (with ABAG and Federal investment) to plan, secure NEPA clearance and partially design a pedestrian bridge that will span across Alviso Slough/Lower Guadalupe River, and be parallel to the railway. There may be an opportunity for the study identify a leveraging opportunity. The study should determine if it might consider use of the City's planned bridge as an alternative means along the railroad and reach the loop trails to the west. The linked page offers some information on the bridge project. http://www.sanjoseca.gov/index.aspx?nid=2772	Thank you for providing the additional information about the existing and proposed trail network in the Alviso area. The Lower Guadalupe River crossing is a high priority for the regional trail network but, unfortunately, is outside of the Shoreline Study area and would not be eligible for cost-sharing under USACE guidelines. A Lower Guadalupe River crossing near the Gold Street Bridge would compliment but not replace the need for a safe pedestrian crossing over the railroad line as proposed by the Shoreline Project. The pedestrian crossing over the rail line connects two segments of what should be a continuous levee-top trail.
010_SJPRNS-11	For access to the loop trail to the east, consider the use of Gold Street as a relatively low volume Class III facility to travel from the Lower Guadalupe River Trail to a future trail that follows the eastern edge of the railway alignment.	The bikeway improvements proposed for adjacent to Highway 237 are intended to provide a paved alternative to the levee-top trail so bicyclists could more easily access western alignments of the Bay Trial and the town of Alviso via either the Class III facility on Gold Street or the Guadalupe River Trail. We will add Gold Street as a Class III to the trail maps.
010_SJPRNS-12	Staff is happy to respond to any questions if the study might be able to leverage this future resource and/or champion its funding. The City estimates that about $7,000,000 is required. This amount of funding is well beyond the City's Parks Budget and is not typical for regional or State grant awards. A federal source might support this project. It could be advantageous for the report to include the City's pedestrian bridge (if suitable option for the rail over-crossing) as part of the final study, and make it eligible for a Congressional funding action.	The City of San Jose's planned improvements will provide much needed connections to western alignments of the Bay Trail as well as other regional trails. In addition, the City's project will improve trail access to the town of Alviso and the adjacent Refuge. However, as these improvements are outside of the Shoreline Project area, they are not eligible under the USACE criteria for cost-sharing on recreational improvements. However, the State Coastal Conservancy anticipates continuing to work with the City, outside of the Shoreline Study process, to close the gaps in the regional trail network.

STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
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Sacramento, CA 95825-8202

Established in 1938

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January 22, 2015

File Ref: SCH # 2006012020

Michael Martin
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Subject: Draft Environmental Impact Statement/Report (EIS/EIR) for South San Francisco Bay Shoreline Phase I Study, Santa Clara County

Dear Mr. Martin:

The California State Lands Commission (CSLC) staff has reviewed the subject Draft EIS/EIR for the South San Francisco Bay Shoreline Phase I Study (Project), which is being prepared jointly by the Santa Clara Valley Water District (District) as the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), and the U.S. Army Corps of Engineers (USACE) and/or the U.S. Fish and Wildlife Service (USFWS) as the lead agency(ies) under the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.). The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses. Additionally, because the Project involves work within sovereign lands, the CSLC will act as a responsible agency. CSLC staff previously provided comments on the District's revised Notice of Preparation (NOP) in a letter dated October 1, 2014 (enclosed).

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of

all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

After reviewing the information contained in the Draft EIS/EIR, and as stated in its prior letter to the District, CSLC staff has determined the Project includes State-owned sovereign lands under the jurisdiction of the CSLC consisting of natural, navigable, and tidal portions of Coyote Creek, Guadalupe Slough, Alviso Slough, Mallard Slough, and Mud Slough; therefore, a lease from the CSLC will be required for the District to implement the Project on sovereign lands. Please contact Al Franzoia (see contact information below) at your earliest convenience for further information about the extent of the CSLC's sovereign ownership and leasing requirements. Lease applications can be found on the CSLC's website, www.slc.ca.gov/Online_Forms/Online_Forms_Home_Page.html.

This letter is not intended, nor should it be construed as a waiver or limitation of any right, title, or interest of the State of California in any lands under its jurisdiction.

Project Description

The Project would encompass an area between the Guadalupe River and Coyote Creek in San Jose including portions of the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) (which includes most of the former salt ponds in the Project area, with the exception of Pond A-18). The District and USACE propose to reduce tidal flood risk in the area, which will also facilitate the tidal marsh restoration activity.

The proposed Project would include engineered levees along the Alviso North and Water Pollution Control Plant South alignments following existing levees built to protect against the 1 percent tidal event with anticipated sea level rise; a tide gate across Artesian Slough; "basic" restoration of salt ponds A9, A10, A11, A12, A13, A14, A15, and A18; a transition habitat slope of 30:1; and recreation measures to compensate for the loss of public access as the ponds in the Refuge are breached and restored to tidal marsh. These recreation measures include multi-use trails on top of the new proposed flood risk management levee with connection to the Bay Trail network, viewing platforms and benches, and trail upgrades to be made to an existing segment of the Bay Trail system along State Route 237.

Environmental Review

While many of the comments and suggestions in CSLC's October 1, 2014 letter appear to have been addressed, the Draft EIS/EIR does not discuss several specific comments related to (1) CSLC leasing jurisdiction, (2) adequacy of the Project Description, and (3)

adequacy of the impact analysis. CSLC staff, therefore, submits the following comments in its capacity as a trustee and responsible agency pursuant to CEQA, and requests that the City consider the following comments on the Draft EIS/EIR.

General Comments

1. Agency Requirements: As stated in our previous letter and above, a lease from the CSLC will be required for the District to implement the Project on sovereign lands. Please revise Table 6.2-1 and Table 6.3-3 to state that the CSLC would require a lease (rather than an encroachment permit, as currently stated). 1

2. Project Description: On page CS-1, the Draft EIS/EIR states that Alternative 3, the Locally Preferred Project or Plan (LPP) is the "Proposed Project." Although the Proposed Project Description generally identifies what areas would be impacted, no construction details are provided, nor does it reference where such details can be reviewed. Appendix G does contain additional information about the LPP including plan sets; however, the level of detail requested in our previous letter (e.g., types of equipment or methods that may be used, seasonal work windows, etc.) is not provided or would be difficult for the general public to find in the document. CSLC staff suggest that the Proposed Project Description be revised so that a complete overview of the components of the Proposed Project are clearly outlined and project-level detail is provided, to aid CSLC staff in determining exactly what actions would be taking place within CSLC jurisdiction. 2

3. Impact Analysis: Under section 9.6.2, Preconstruction Engineering and Design (PED) (p. 9-21), the Draft EIS/EIR states that during the PED phase, several additional studies would be conducted as part of developing detailed designs for the Project. These studies include, for example, topographic and ground surveys for project design; a Phase I Environmental Site Assessment to identify potential hazardous materials wastes within the study area; water quality analysis of construction activities and methods; and intensive cultural resources surveys, evaluations, and mitigation in consultation with the State Historic Preservation Officer (SHPO), and Native American Tribes. Please note that CEQA requires a lead agency to disclose and analyze all that it feasibly can in order to ensure informed decision-making. The studies and analyses listed in the PED would provide critical information related to the potential for, and significance of, environmental effects resulting from the Project. Unless conducting these analyses is truly infeasible at this time, which the District does not state is the case, they should be conducted and the Draft EIS/EIR revised and recirculated to provide an opportunity for full public disclosure and review. Without such analyses in the EIS/EIR, meaningful review of the impacts and adequacy of the mitigation by CSLC staff is precluded, which may result in the need for additional information to be submitted with the lease application, and if previously undisclosed or more severe impacts could result, the District could be subject to additional review requirements under section 15162 of the State CEQA Guidelines. 3

4. Mitigation: Project approval by the CSLC would require the adoption of all Avoidance and Minimization Measures, and Mitigation Measures, outlined in the Final EIS/EIR that are applicable to lands under the jurisdiction of the CSLC. Please note that a Mitigation, Monitoring, and Reporting Plan (MMRP) should be prepared to facilitate this requirement. 4

Cultural Resources

5. Title to Resources: As requested in our previous letter, per California Public Resources Code section 6313, please mention that the title to all archaeological sites and historic or cultural resources on or in submerged lands of California is vested in the State and under the jurisdiction of the CSLC. CSLC staff suggests that this text be added under section 4.15.1.1.2 *State Regulations*. In addition, CSLC staff requests that the lead agencies consult with Assistant Chief Counsel Pam Griggs (see contact information below), should any cultural resources on State lands be discovered during construction of the proposed Project. 5

Thank you for the opportunity to comment on the Draft EIS/EIR for the Project. Please send copies of future Project-related documents, including electronic copies of the Final EIS/EIR, MMRP, Notice of Determination (NOD), CEQA Findings and, if applicable, Statement of Overriding Considerations when they become available, and refer questions concerning environmental review to Cynthia Herzog, Senior Environmental Scientist, at (916) 574-1310 or via e-mail at Cynthia.Herzog@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Assistant Chief Counsel Pam Griggs at (916) 574-1854 or via email at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Alfred Franzoia, Public Land Management Specialist, at (916) 574-0992, or via email at Alfred.Franzoia@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
A. Franzoia, CSLC
C. Herzog, CSLC
J. Rader, CSLC

Enclosure

ID	Issue Text	Response Text
011_SLC-1	Agency Requirements: As stated in our previous letter and above, a lease from CSLC will be required for the District to implement the Project on sovereign lands. Please revise Table 6.2-1 and Table 6.3-3 to state that the CSLC would require a lease (rather than an encroachment permit, as currently stated).	Thank you for your comment and clarification. Per your request, both Tables 1.7-1 and 6.3-3 were updated to state that the State Lands Commission would require a lease in order to implement the project on sovereign lands.
011_SLC-2	Project Description: On page CS-1, the Draft EIS/EIR states that Alternative 3, the Locally Preferred Project or Plan (LPP) is the "Proposed Project." Although the Proposed Project Description generally identifies what areas would be impacted, no construction details are provided, nor does it reference where such details can be reviewed. Appendix G does contain additional information about the LPP including plan sets; however, the level of detail requested in our previous letter (e.g., types of equipment or methods that may be used, seasonal work windows, etc.) is not provided or would be difficult for the general public to find in the document. CSLC staff suggest that the Proposed Project Description be revised so that a complete overview of the components of the Proposed Project are clearly outlined and project-level detail is provided, to aid CSLC staff in determining exactly what actions would be taking place within CSLC jurisdiction.	As possible, the suggested revisions were made to the main document; more details of construction were included in Chapter 3 to describe the alternatives and their related features. However, some of the details described in the comment will not be determined until final design, so are not currently available to be included in the document. Seasonal work windows, specifically related to the potential for impacts to aquatic and/or terrestrial species, are included in Sections 4.6 and 4.7 in species impact discussions.
011_SLC-3	Impact Analysis: Under section 9.6.2, Preconstruction Engineering and Design (PED) (p. 9-21), the Draft EIS/EIR states that during the PED phase, several additional studies would be conducted as part of developing detailed designs for the Project. These studies include, for example, topographic and ground surveys for project design; a Phase I Environmental Site Assessment to identify potential hazardous materials wastes within the study area; water quality analysis of construction activities and methods; and intensive cultural resources surveys, evaluations, and mitigation in consultation with the State Historic Preservation Officer (SHPO), and Native American Tribes. Please note that CEQA requires a lead agency to disclose and analyze all that it feasibly can in order to ensure informed decision-making. The studies and analyses listed in the PED would provide critical information related to the potential for, and significance of, environmental effects resulting from the Project. Unless conducting these analyses is truly infeasible at this time, which the District does not state is the case, they should be conducted and the Draft EIS/EIR revised and recirculated to provide an opportunity for full public disclosure and review. Without such analyses in the EIS/EIR, meaningful review of the impacts and adequacy of the mitigation by CSLC staff is precluded, which may result in the need for additional information to be submitted with the lease application, and if previously undisclosed or more severe impacts could result, the District could be subject to additional review requirements under section 15162 of the State CEQA Guidelines.	The studies and analysis discussed for Pre-construction Engineering and Design are those regularly done to inform the detailed design of a project. Environmental review is typically done at an earlier phase of project development, prior to a time when full detail designs are complete. Generally, EIRs are prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for assessment. CEQA Guidelines, section 15004(b). An EIR should provide a sufficient degree of analysis to provide decision makers with information needed to make an intelligent decision concerning the project, but the environmental evaluation need not be exhaustive; the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. CEQA Guidelines, section 15151. The EIS/EIR contains adequate information for the public and decision makers to make informed decisions about the potential environmental impacts of the project as required by CEQA and NEPA. • Section 4.8 contains a full listing of known hazardous materials sites within or adjacent to the potential area of disturbance including a summary of the known hazards (see Table 4.8-1). The analysis of Section 4.8 includes a discussion of potential hazards from these sites and mitigation measures to avoid significant impacts to human health or the environment. • Current water quality is discussed in Section 4.5 based on recent studies conducted for the Project and the South Bay Salt Ponds Restoration Project. • Cultural Resources are evaluated in Section 4.15 based on the SBSP Restoration Project Final Cultural Resources Assessment Strategy Memorandum and Historic Context Report and Cultural Resources Assessment: South San Francisco Bay Shoreline Interim Feasibility Study. The SCVWD acknowledges that a subsequent EIR may be required per CEQA Guidelines, section 15162, if, after the EIR is certified, the later studies or analyses demonstrate that the project would result in new significant environmental effects or substantially more severe significant effects.
011_SLC-4	Mitigation: Project approval by the CSLC would require the adoption of all Avoidance and Minimization Measures, and Mitigation Measures, outlined in the Final EIS/EIR that are applicable to lands under the jurisdiction of the CSLC. Please note that a Mitigation, Monitoring, and Reporting Plan (MMRP) should be prepared to facilitate this requirement.	Your comment is acknowledged. Under CEQA, a lead agency may not approve a project for which an EIR has been certified without first making the necessary CEQA findings. One of the possible findings is that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the final EIR. CEQA Guidelines, section 15091(a). When the lead agency makes such a finding, it is also required to adopt a program for monitoring or reporting on the project revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant impacts. CEQA Guidelines, section 15097(a). As such, a MMRP which will include all Avoidance and Minimization Measures and Mitigation Measures identified in the document will be prepared as part of the Final EIS/EIR and if the SCVWD decides to approve the project, it will adopt the MMRP in conjunction with project approval.
011_SLC-5	Cultural Resources: Title to Resources: As requested in our previous letter, per California Public Resources Code section 6313, please mention that the title to all archaeological sites and historic or cultural resources on or in submerged lands of California is vested in the State and under the jurisdiction of the CSLC. CSLC staff suggests that this text be added under section 4.15.1.1.2 State Regulations. In addition, CSLC staff requests that the lead agencies consult with Assistant Chief Counsel Pam Griggs (see contact information below), should any cultural resources on State lands be discovered during construction of the proposed Project.	Section 4.15.1.1.2 will be revised as suggested in the comment. The project proponents will consult with the State Lands Commission if historic resources are discovered on State lands.

U.S. Department of Homeland Security
United States Coast Guard

Commander
Eleventh District

U.S. Coast Guard Island, Bldg 50-2
Alameda, CA 94501-5100
Staff Symbol: (dpw)
Phone: (510) 437-3514
Fax: (510) 437-5836

16591
South Bay Shoreline Project
22 Jan 2015

MEMORANDUM

From: D. H. SULOUFF
Chief, Bridge Section

To: U. S. Army Corps of Engineers, San Francisco District
Attn: William Dejager

Subj: PROPOSED BRIDGES, SOUTH SAN FRANCISCO BAY SHORELINE PHASE "1" PROJECT, ARTESIAN SLOUGH AND AN UNNAMED DITCH NEAR ALVISO, CA

1. The General Bridge Act of 1946 requires the approval of the location and plans of bridges prior to the start of construction (33 U.S.C. 525). As the Federal regulatory agency responsible for permitting proposed bridges under the provisions of the General Bridge Act of 1946, the USCG has completed our review Corps Federal Register notice dated 19 Dec 2014, and the draft Environmental Impact Statement (DEIS) for the subject project at the Don Edwards Wildlife Refuge, near San Jose, Santa Clara County, California. 1

2. The Commandant of the Coast Guard has given advance approval to the location and plans of bridges to be constructed across reaches of waterways considered navigable, but not actually navigated by other than logs, log rafts, rowboats, canoes and small motorboats. In such cases the clearances provided for high water stages will be considered adequate to meet the reasonable needs of navigation. (33 CFR 115.70).

3. We understand two proposed pedestrian bridges are included in the project crossing Artesian Slough at mile 2.0, and un-named ditch 4,565 feet north of Alviso, CA in position N37° 26' 25" W121° 58' 33".

a. Artesian Slough is considered navigable by Coast Guard standards, for bridge permitting, from its confluence with Coyote Creek at mile 0.0 to its upper limit at mile 2.5. However, at the project site, mile 2.0, Artesian Slough conforms to Advance Approval bridge permitting criteria in paragraph 2 above, and the Corps of Engineers has not indicated plans to make navigational improvements that would result in larger watercraft passing through the proposed bridge. Therefore, no individual Coast Guard bridge permit will be required for this bridge. This does not relieve the applicant from complying with all applicable federal, state and local laws and associated permit requirements. The bridge owner is required to notify this office at least 30 days prior to beginning construction so we may provide appropriate notices to mariners. "As built" drawings showing horizontal (pier face to pier face), and vertical (above mean high water), navigational clearance measurements and a photograph of the bridge are required when the bridge is complete. This advance approval determination for Artesian Slough 2

is valid for a period of 2 years from the date of this memorandum. If the character of navigation changes, such that the waterway no longer meets advance approval criteria, the Coast Guard will promptly withdraw the advance approval designation for this project and notify all interested parties.

b. Under the provisions of the Coast Guard Authorization Act of 1982, the Coast Guard has determined the proposed bridge crossing an unnamed ditch 4,565 feet north of Alviso, CA in position N37° 26' 25" W121° 58' 33", will not require Coast Guard involvement for bridge permitting purposes. 3

4. We recommend the following edits to the NEPA document:

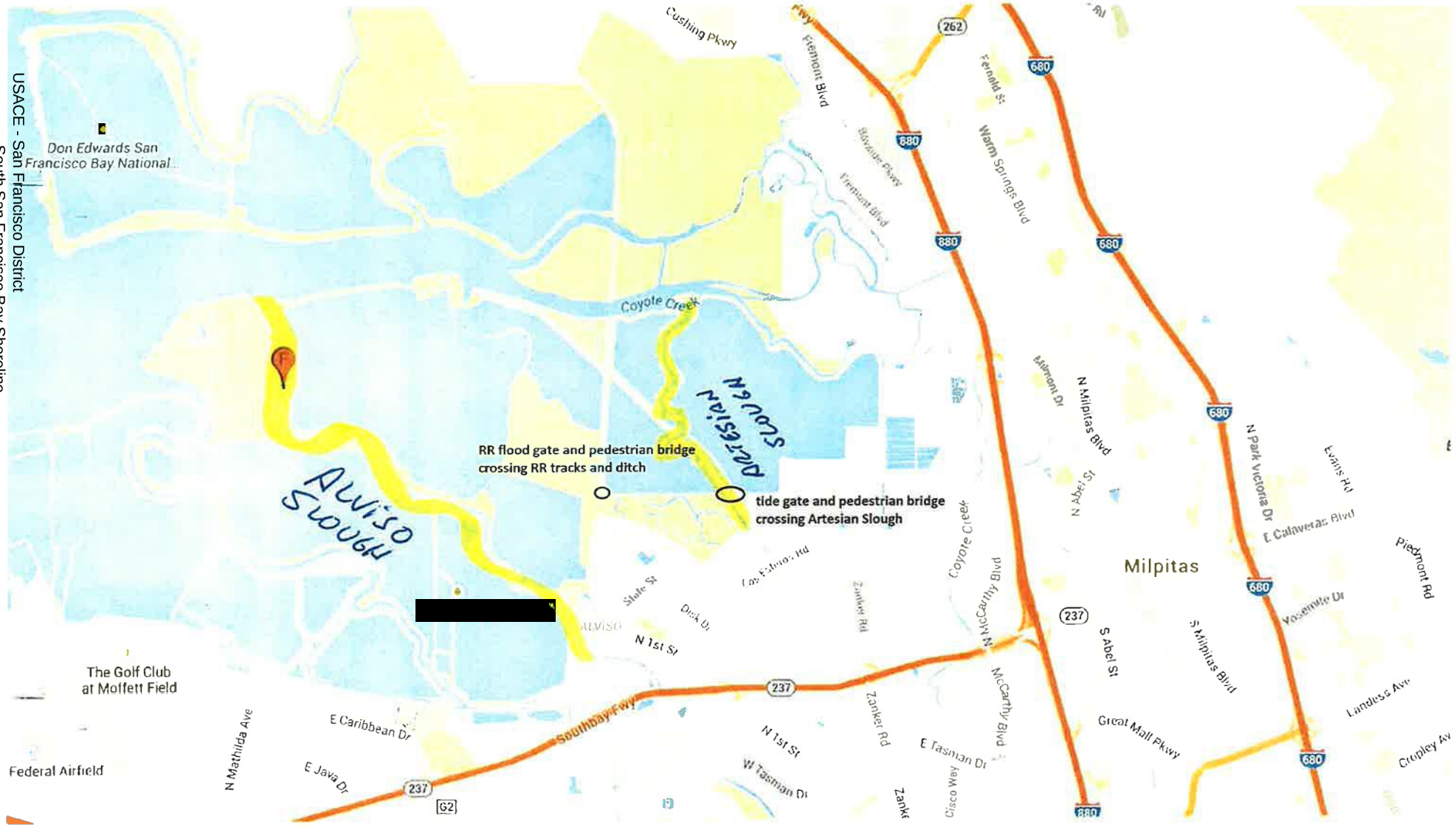
a. It does not appear there are any proposed bridges over Alviso Slough, associated with this project. Change "Alviso Slough" to the appropriate waterway name wherever appropriate. 4

b. Ensure this Coast Guard determination is reflected in the NEPA documentation for the project. 5

5. You may contact Mr. Carl Hausner, Project Manager, by telephone at (510) 437-3515 to discuss this project.

#

Copy: CG-BRG-2



ENCLOSURE ( )

1 km

Report a map error

01/13/2015

ID	Issue Text	Response Text
012_USCG-1	1. The General Bridge Act of 1946 requires the approval of the location and plans of bridges prior to the start of construction (33 U.S.C. 525). As the Federal regulatory agency responsible for permitting proposed bridges under the provisions of the General Bridge Act of 1946, the USCG has completed our review Corps Federal Register notice dated 19 Dec 2014, and the draft Environmental Impact Statement (DEIS) for the subject project at the Don Edwards Wildlife Refuge, near San Jose, Santa Clara County, California. 2. The Commandant of the Coast Guard has given advance approval to the location and plans of bridges to be constructed across reaches of waterways considered navigable, but not actually navigated by other than logs, log rafts, rowboats, canoes and small motorboats. In such cases the clearances provided for high water stages will be considered adequate to meet the reasonable needs of navigation. (33 CFR 115.70).	Your comment is acknowledged.
012_USCG-2	3. We understand two proposed pedestrian bridges are included in the project crossing Artesian Slough at mile 2.0, and un-named ditch 4,565 feet north of Alviso, CA in position N37 26'25" W121 58'33".a. Artesian Slough is considered navigable by Coast Guard standards, for bridge permitting, from its confluence with Coyote Creek at mile 0.0 to its upper limit at mile 2.5. However, at the project site, mile 2.0, Artesian Slough conforms to Advance Approval bridge permitting criteria in paragraph 2 above, and the Corps of Engineers has not indicated plans to make navigational improvements that would result in larger watercraft passing through the proposed bridge. Therefore, no individual Coast Guard bridge permit will be required for this bridge. This does not relieve the applicant from complying with all applicable federal, state and local laws and associated permit requirements. The bridge owner is required to notify this office at least 30 days prior to beginning construction so we may provide appropriate notices to mariners. "As built" drawings showing horizontal (pier face to pier face), and vertical (above mean high water), navigational clearance measurements and a photograph of the bridge are required when the bridge is complete. This advance approval determination for Artesian Slough is valid for a period of 2 years from the date of this memorandum. If the character of navigation changes, such that the waterway no longer meets advance approval criteria, the Coast Guard will promptly withdraw the advance approval designation for this project and notify all interested parties.	Your comment is acknowledged. The bridge owner will notify the Coast Guard as required.
012_USCG-3	b. Under the provisions of the Coast Guard Authorization Act of 1982, the Coast Guard has determined the proposed bridge crossing an unnamed ditch 4,565 feet north of Alviso, CA in position N37 26'25" W121 58'33", will not require Coast Guard involvement for bridge permitting purposes.	Your comment is acknowledged.
012_USCG-4	4. We recommend the following edits to the NEPA document: a. It does not appear there are any proposed bridges over Alviso Slough, associated with this project. Change "Alviso Slough" to the appropriate waterway name whenever appropriate.	Per your comment, it is agreed that there are no proposed bridges over Alviso Slough. Chapters 3 and 9 references to the proposed pedestrian bridge were clarified as being proposed for Artesian Slough, not Alviso Slough.
012_USCG-5	4. We recommend the following edits to the NEPA document: b. Ensure this Coast Guard determination is reflected in the NEPA documentation for the project.	Thank you for your advance approval to the location and plans of bridges to be constructed across Artesian Slough at mile 2.0 and un-named ditch 4,565 feet north of Alviso, CA. Per your request, this determination has been recorded as part of the environmental document; reference to the determination has been added to Table 8.3-1 Applicable Federal Regulations that Apply to the Shoreline Phase I Study Environmental Review, and the complete letter is included in Appendix I, as part of the package of public comments and responses.

From: JLucas1099@aol.com
Sent: Saturday, January 17, 2015 9:56 AM
To: Shoreline Environment SPN
Subject: [EXTERNAL] South San Francisco Bay Shoreline Phase 1 Project

Mr. Bill DeJager
1455 Market Street
San Francisco, California 94103

January 17, 2015

RE: South San Francisco Bay Shoreline Phase 1 Project

Dear Bill DeJager,

On making a first superficial review of your extensive document on proposed flood control measures in the Alviso area of South San Francisco Bay, would like to comment on basic aspects of study with which I take exception. However as need time to ferret out flood studies that I cite, will forward full text of concerns later.

Initially, cannot agree with premise that riverine flooding in Alviso area is no longer a concern, but rather that flooding from South Bay needs to be sole focus of a major COE designed flood control shoreline levee. Think you will find that Guadalupe River no longer has its original COE design channel capacity for 17,000 cfs flow, while Coyote Creek flow has been so muted in recent decades that debris dams now compromise channel. **1**

Though subsidence in San Jose and Alviso area, study notes, is cause of high siltation rate in local streams, do not believe it accurately describes present evolution of what can be called delta of Guadalupe and Coyote River systems found north of #237 and perhaps extending south to #101. Latter area does not drain well and in storm events pumps storm waters to river. High groundwater and saltwater intrusion complicate condition. **2**

In recent heavy rain, am told, roads in Alviso were flooded from clogged drainage and over eager construction site pumping. If somewhat routine urban runoff can result in high water, then careful consideration needs to be given to effect major storm event will have in Alviso neighborhood when bounded by high berm flood levee. **3**

When bay levels run high in storm conditions, rivers will reflux and overbank, regardless of height of bay or river levee protection, so safety for communities must be considered from both river and bay directions. This, I do not believe, is adequately accommodated in this study's proposed COE super levee design. **4**

The ongoing Napa River flood project has established a wetlands preserve flood water holding basin between Town of Napa and San Francisco Bay that tries to adequately absorb spike river flow until bay levels recede. It is an equivalent bay buffer flood water holding basin that COE's levee proposal neglects to consider and so it results in a critical deficiency in this project document. **5**

In assessing neighboring rivers in Palo Alto, study does not analyse City of Palo Alto's baylands flood basin which is another example of flood retention buffer regulating flows between river and bay in peak storm event. Will attempt to find SCVWD description of their consideration of timing of storm flows with rising bay levels. **6**

Alternatives analysis I find deficient in that it only considers alinement of levee along shore of water treatment plant levee which will eliminate prime habitat for endangered South Bay species of Califonria Clapper Rail and Salt Marsh Harvest Mouse. Continuity of corridor is vital for SMHM here, where it rounds end of Bay. **7**

Propose consideration be given to upgrade railroad track levee to be COE flood levee across South Bay, from Alviso to Fremont with tide gates at Drawbridge for Coyote Creek and at Guadalupe River Gold Street bridge in Alviso. Believe distance of five miles is equivalent for both alinements (aprox.) and cost benefit ratio better.

Then would envision inner tidal basin with diverse wetlands habitat designed to attract waterfowl historically known to either visit South Bay marshes on migratory flight or to be resident, or species of special concern. **8**

Subsequent submittal will touch on elements of concern as the four dozen western pond turtles identified by Navy in process of excavating contaminants from Northern Channel, as well as try to document flood data.

Thank you for consideration of these comments and hope they are being sent to correct e-mail address.

Libby Lucas
174 Yerba Santa Ave.,
Los Altos, CA 94022

ID	Issue Text	Response Text
013_Lucas_1-1	Initially, cannot agree with premise that riverine flooding in Alviso area is no longer a concern, but rather that flooding from South Bay needs to be sole focus of a major COE designed flood control shoreline levee. Think you will find that Guadalupe River no longer has its original COE design channel capacity for 17,000 cfs flow, while Coyote Creek flow has been so muted in recent decades that debris dams now compromise channel.	It is impossible to design and build a flood risk management structure that will provide a 100% guarantee against flooding; there will always be some remaining risk of flooding. The proposed project levee elevation, 15.2 ft is less that the adjacent riverine levee elevation, 16 ft. Residual flooding from the proposed project is negligible. Any residual flows would flow into the marsh. Federally constructed riverine levees on both Coyote Creek and Guadalupe River were designed to safely contain the 1% ACE flood event. Flows of magnitude equal to or less than the 1% ACE flood event will be contained in the channels within the hydrologic study area. Once the proposed levee is built, the largest residual flood risk in the hydrologic study area will come from fluvial flooding from the Guadalupe River. Nuisance flooding from the storm drain network is expected to remain the same. Also the Guadalupe River (downtown and lower Guadalupe) and the Coyote Creek projects are inspected annually by the Corps and by the Santa Clara Water District. Any significant shoaling in the channels would be noted in regular inspection reports.
013_Lucas_1-2	Though subsidence in San Jose and Alviso area, study notes, is cause of high siltation rate in local streams, do not believe it accurately describes present evolution of what can be called delta of Guadalupe and Coyote River systems found north of #237 and perhaps extending south to #101. Latter area does not drain well and in storm events pumps storm waters to river. High groundwater and saltwater intrusion complicate condition.	Comment noted. Page E-22 of Appendix E Water Resources Engineering briefly discusses an analysis done by Scott(2009) which describe the systems north of Highway 237. The study is also reference on page E-43. The analysis was a field assessment which evaluated five South San Francisco Bay streams (Coyote Creek, Guadalupe River, Calabazas Creek, Stevens Creek and Permanente Creek) in support of the riverine sediment transport component. The evaluation consisted of observing the lower reaches of the streams with general reach boundaries extending from Highway 101 to the bay sloughs. Sediment samples were taken along each stream reach was feasible particularly in areas where the bed slope or bed sediment composition was changing. Observations of channel cross sections were made along with in-stream controls, vegetation or stream corridor controls such as levees. Base flows were noted within the channels and sediment deposits in floodplains were examined. The channels above Highway 101 are gravel-cobble bed steep gradient channels for which sand, silt and clay behave as wash load during intermediate to large flow events. Downstream of Highway 101 a number of factors make the lower channels a depositional area for sand sized sediments. A decrease in channel slope combined with the influence of bay tides and backwater elevations due to the bridges spanning the streams result in deposition of sand sized sediments between Highway 101 and the lower Highway 237 Bridge. Below Highway 237, sediment transport consists primarily of silts and clays along with some very fine and fine sand.
013_Lucas_1-3	In recent heavy rain, am told, roads in Alviso were flooded from clogged drainage and over eager construction site pumping. If somewhat routine urban runoff can result in high water, then careful consideration needs to be given to effect major storm event will have in Alviso neighborhood when bounded by high berm flood levee.	There will be no back water effects caused by the proposed levee. Local drainage issues, due to clogged drains or overtaxed system, may still occur. This occurs in many communities. Corps policy does not allow for project participation in local drainage issues (Engineer Regulation 1105-2-100, page 3-12). This is not an objective of the project, and local drainage patterns as described will not be impacted by the project; however, our partners, Santa Clara Valley Water District and the City of San Jose, have been looking at this issue.
013_Lucas_1-4	When bay levels run high in storm conditions, rivers will reflux and overbank, regardless of height of bay or river levee protection, so safety for communities must be considered from both river and bay directions. This, I do not believe, is adequately accommodated in this study's proposed COE super levee design.	We agree that you must consider both high bay and river elevations when designing the levee system, which we did for this project. A coincident frequency analysis (CFA) was performed to determine the effects of coincidence of the peak tide and peak stream discharge and to determine the downstream boundary water surface levels. Without-project coincident frequency analyses assumed that coastal water surface elevations and riverine flows are independent. Subsequent to the original study, it was shown that flow in the Guadalupe River is well correlated with storm surge, and that tidal residuals of up to two feet may be expected due to the correlation. The coincident frequency analysis predicted the downstream boundary condition, influenced by tidal stage, for the unsteady HEC-RAS models. The maximum tidewater elevation modeled under without-project conditions was 13 feet. Maximum tidewater elevations were increased in the with-project models to 15 feet to account for storm surge effects. Minimum tidewater elevation in both without and with-project conditions was 2.83 ft NAVD 88. The coincident frequency analysis only applied to the area of the channel where the tide driven water levels and the creek flow meet or commingle. Downstream of the commingling area the water levels are tidally driven and upstream of this area the water levels are dominated by the creek flow.
013_Lucas_1-5	The ongoing Napa River flood project has established a wetlands preserve flood water holding basin between Town of Napa and San Francisco Bay that tries to adequately absorb spike river flow until bay levels recede. It is an equivalent bay buffer flood water holding basin that COE's levee proposal neglects to consider and so it results in a critical deficiency in this project document.	A number of alternatives to address the flooding from the bay were considered and discussed. The bay buffer water basin is not necessary with the proposed levee design since there are no backwater effects.
013_Lucas_1-6	In assessing neighboring rivers in Palo Alto, study does not analyse City of Palo Alto's baylands flood basin which is another example of flood retention buffer regulating flows between river and bay in peak storm event. Will attempt to find SCVWD description of their consideration of timing of storm flows with rising bay levels.	The Integrated Document does not analyze the Palo Alto Flood Basin as it is outside the current Shoreline Study Phase I project area. The Palo Alto Flood Basin will be part of the Shoreline Study's evaluation in the future phase of the Shoreline Study which will look at flood protection, habitat restoration, and recreational opportunities along the remaining shoreline of Santa Clara County. The Santa Clara Valley Water District is responsible for operation of 15 out of 16 of the Palo Alto tide gates and is aware of the flood basin's operational capacity. A bay buffer water basin is not necessary with the proposed levee design since there are no backwater effects.

013_Lucas_1-7	Alternatives analysis I find deficient in that it only considers alinement of levee along shore of water treatment plant levee which will eliminate prime habitat for endangered South Bay species of Califonria Clapper Rail and Salt Marsh Harvest Mouse. Continuity of corridor is vital for SMHM here, where it rounds end of Bay.	The Shoreline project shares the commenter's concern over impacts to the SMHM. One of the key species to benefit from the construction of ecotone (the project includes broad upland transition zones adjacent to the engineered levee) is the SMHM. The ecotone will provide sufficient cover and habitat to protect the SMHM during high tides and storms and allow for migration along the shoreline. When completed, the Shoreline project will create nearly 3,000 acres of SMHM habitat and when combined with the already-restored Pond A17, the south bay will have a continuous band of salt marsh habitat from Alviso Slough Ponds A9-15 through A17 to Coyote Creek's fringing marshes and Pond A18. The only disruption would be the existing Union Pacific Railroad line. This ultimate vision will provide much greater habitat connectivity, and the construction of the ecotone and the phased approach to restoration will help to minimize the direct effects of the initial restoration actions.
013_Lucas_1-8	Propose consideration be given to upgrade railroad track levee to be COE flood levee across South Bay, from Alviso to Fremont with tide gates at Drawbridge for Coyote Creek and at Guadalupe River Gold Street bridge in Alviso. Believe distance of five miles is equivalent for both alinements (aprox.) and cost benefit ratio better. Then would envision inner tidal basin with diverse wetlands habitat designed to attract waterfowl historically known to either visit South Bay marshes on migratory flight or to be resident, or species of special concern.	Early in the Shoreline Study planning process, options similar to the commenter's suggestion were considered such as hardening outboard levees and installing tide gates strategic locations to hold back tidal flooding. This would convert the former south bay salt ponds to essentially flood detention basins. Such basins can successfully be managed as either tidal and/or riparian flood flows (depending on how they are designed) and create habitat, but they result in highly-altered environments with the need for intensive, long-term management. Consistent with the vision created by the South Bay Salt Pond Restoration Project and consistent with Corps of Engineers ecosystem restoration policy, the Shoreline Study has tried to incorporate more natural, less managed solutions into the project, as much as possible, in order to reduce environmental impacts, costs, and long-term complications from highly-managed systems. Using the railroad line to create tidal basins would also conflict with the Shoreline Study's identified habitat goals of tidal restoration through an adaptive management process. Tidal basins and tide gates usually preclude full tidal restoration. While these muted tidal systems can provide valuable habitat, they do not have all of the geomorphic and ecological functions that existed historically when the South Bay was dominated by unconstrained tidal marshes. Furthermore, the creation of tidal detention basins would conflict with the habitat goals of the South Bay Salt Pond Restoration Project and other regional plans, such as the Baylands Ecosystem Habitat Goals and the USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California in that it would not provide extensive habitat for special status species such as the salt marsh harvest mouse and Ridgway's rail. A central goal of these plans is to create largely unbroken swaths of salt marsh habitat in the far South Bay and reconnect isolated wildlife populations. For these reasons, these types of flood protection solutions were not carried forward for further analysis.

From: JLucas1099@aol.com
Sent: Wednesday, January 28, 2015 1:54 PM
To: Shoreline Environment SPN
Subject: [EXTERNAL] South San Francisco Bay Shoreline Phase 1 Project Draft FR/EIS/EIR(cont comment)

014_Lucas2

Mr. Bill DeJager
1455 Market Street
San Francisco, California 94103

January 28, 2015

RE: South San Francisco Bay Shoreline Phase 1 Project Draft FR/EIS/EIR (comment continued)

Dear Bill DeJager,

Enclosed please find 'historic' documentation of endangered species habitat, mitigation marsh wetlands, and Pacific Flyway as well as resident waterfowl and wildlife presence in the Alviso Shoreline project region.
~ 1978 San Jose-Santa Clara Water Treatment Plant EIR Figure 4-8 Endangered Species in the Baylands
~ Coyote Creek Flood Project Reach 1A Salt Marsh Harvest Mouse Mitigation site and Waterbird Pond (1-5)
~ South Bay Salt Pond Restoration Project Figure 6-7 Salt Marsh Harvest Mouse Habitat, Capture Locations
~ San Jose-Santa Clara Water Treatment Plant Lands Distribution of Biotic Habitats H.T.Harvey 2006 Fig.8

Believe that these former environmental assessments of prime habitat locations for California Clapper Rail, Salt Marsh Harvest Mouse and other endangered and special concern indicator species show how critically they will be impacted by the shoreline levee alignment as proposed in this Phase ! Project Draft FR/EIS/EIR. 1

The staggered levee of old biosolids' lagoons has provided high ground refugia for decades, and associated with slough levees and New Chicago Marsh habitat, has been essential to calibre and continuity of wildlife corridor around south end of Bay. Viability of this habitat has made South Bay prime region of wildlife refuge.

Alviso marsh area would be aesthetically altered by proposed South Bay Shoreline levee alignment as the mass and height of shoreline levee would obscure bay vistas for recreation users as well as for residents. To experience bleak, unvegetated wall of soil super levees provide, suggest visit to Redwood Shores outer levee. 2

Finally, find loss and degradation due to levee design is deficient in alternative analysis and substantiation. If precedent of choices of London and Venice for flood gates on Thames and Adriatic to repel intermittent flood surges from intense storm systems is evaluated, believe conditions are comparable to high water in Alviso. 3

In regards to this Shoreline study's premise that riverine flooding is no longer a threat to Alviso, please review Guadalupe River flood project data from 1985 COE report which cites flow at confluence of Los Gatos Creek and Guadalupe River at 17,000 cfs. Add to this groundwater pumping at San Jose's International Airport and City of San Jose's urban stormwater runoff pumps at Montague Expressway of 5000 cfs plus global warming increase in storm intensity rate of watershed runoff of 3000 cfs and then 25,000 cfs is likely total at Alviso.

Do not believe that you will find channel capacity in Lower Guadalupe River will accommodate 25,000 cfs. SCVWD used to remove sediment annually from alternate sides of channel but gave practice up years ago. 4

To quote from your COE earlier 1989 Shoreline Study;
"land subsidence has increased both tidal and fluvial flood problems in South Bay.....Fluvial problems have been increased by land subsidence because stream channels were reduced in elevation relative to the Bay and the gradients of the channels were flattened near the Bay. This increases backwater effects of high tides, increases the deposition of sediment, and reduces flow velocities and channel capacities. Subsidence also increased interior drainage problems because protected areas were reduced in elevation relative to drainage channels and the Bay so that gravity drainage has become less effective...."
.....and the report goes on to evaluate Sea Level Rise.

With these constraints in fluvial capacity, believe incidence of stormwater overbanking upstream from Alviso is of sufficient concern to compromise integrity of super levee as proposed protection for inboard commercial development and neighborhoods. In ignoring fluvial flooding feasibility this FR/EIS/EIR is therefore deficient.

The 1989 SF COE Shoreline Study gives consideration to frequency of 'coincidental tidal and fluvial events', with a correlation of both extreme high tides and high fluvial runoff caused by low pressure storm systems. Such conditions need to be fully analyzed in proposed Shoreline Phase 1 levee project Draft FR/EIS/EIR, including tide and wind combinations with resulting 3 foot wave ride-up in South Bay under El Nino events. Did not find such analysis in three volume draft or did I miss it? Is study deficient in regards perfect storms? **5**

Global warming reinforces the guarantee of correlation of king high tides with intense storm systems. Former study evaluated global meteorological conditions with local meteorological conditions, local winds, freeboard and interior drainage. The proposed project Draft FR/EIS/EIR needs to update relevant data and do the same. **6**

Such evaluation needs to also include analysis of present Napa River flood project and its wetlands retention basin between Downtown Napa and San Francisco Bay. The preservation of this marsh basin to retain peak Napa River flood flows for sufficient time to mute river reflux from high water in San Francisco Bay is similar to scenario of storm systems affecting either Coyote Creek or Guadalupe River systems or both in protection of Alviso from river reflux over-banking. **7**

As the Golden Triangle, between #237 and #101, no longer offers land available for sizeable retention basin, (though it had been suggested in past) it would appear wetlands inboard of railroad tracks and drawbridge would be most flexible retention marsh complex capable of absorbing most climactic storm systems that might hold over both Mt. Umunhum and Mount Hamilton. **8**

A mosaic of marsh habitat can be managed in sustainable, environmental manner to accommodate resident endangered species, rare or locally unique birds and species of special concern, historically known to reside or forage in South Bay wetlands. Vista from Alviso to Mount Diablo Range is especially valuable to preserve. **9**

The South Bay Shoreline alternative of flood gates at the railroad crossing at Drawbridge (Coyote Creek) and Gold Street (Guadalupe River) is preferred alternative that was not investigated and which I find is only one that can satisfy all constraints of flood protection for subsided Alviso neighborhoods, and for Highways #237 and #880 under extended high water conditions. **10**

In regards upgrade of railroad line levee from Alviso to Fremont, actual COE flood control levee could be sited inboard or outboard, whichever ties in best with infrastructure at either end. Flood gates to be implemented only in occasional, high storm events - frequency similar to implementation of flood gates on River Thames - would leave full, normal tidal action to replenish refuge marshes. This preserves continuity of wildlife corridor and mitigation marshes in Reach 1 of Coyote Creek and around south end of San Francisco Bay.

Cost benefit analysis would be improved with protection of #880 at Dixon Landing and City of Milpitas? **11**

Think I must get these over sized attachments into surface mail or miss your deadline so will close for now.

Libby Lucas
174 Yerba Santa Ave.,
Los Altos, CA 94022

ID	Issue Text	Response Text
014_Lucas_2-1	Enclosed please find 'historic' documentation of endangered species habitat, mitigation marsh wetlands, and Pacific Flyway as well as resident waterfowl and wildlife presence in the Alviso Shoreline project region.~ 1978 San Jose-Santa Clara Water Treatment Plant EIR Figure 4-8 Endangered Species in the Baylands~ Coyote Creek Flood Project Reach 1A Salt Marsh Harvest Mouse Mitigation site and Waterbird Pond (1-5)~ South Bay Salt Pond Restoration Project Figure 6-7 Salt Marsh Harvest Mouse Habitat, Capture Locations~ San Jose-Santa Clara Water Treatment Plant Lands Distribution of Biotic Habitats H.T.Harvey 2006 Fig.8Believe that these former environmental assessments of prime habitat locations for California Clapper Rail, Salt Marsh Harvest Mouse and other endangered and special concern indicator species show how critically they will be impacted by the shoreline levee alignment as proposed in this Phase I Project Draft FR/EIS/EIR.The staggered levee of old biosolids' lagoons has provided high ground refugia for decades, and associated with slough levees and New Chicago Marsh habitat, has been essential to calibre and continuity of wildlife corridor around south end of Bay. Viability of this habitat has made South Bay prime region of wildlife refuge.	Your comment is acknowledged. One of the project goals is to restore large swaths of salt marsh habitat in the far South Bay and reconnect isolated wildlife populations to benefit the Ridgway rail (formally California Clapper Rail) and salt marsh harvest mouse as called for in the USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California. As discussed in Section 4.7, the proposed project is consistent with applicable recovery plans (Impact TBR-5).
014_Lucas_2-2	Alviso marsh area would be aesthetically altered by proposed South Bay Shoreline levee alignment as the mass and height of shoreline levee would obscure bay vistas for recreation users as well as for residents. To experience bleak, unvegetated wall of soil super levees provide, suggest visit to Redwood Shores outer levee.	Unlike the existing berms around the ponds, the proposed flood protection levees will not feature steeply sloping sides. The levee will be much wider and have a gentler slope which will include erosion control vegetation near the top and planted natural vegetation closer to the ponds and marsh. The flood protection levee is not expected to noticeably affect the views of the surrounding landscape and the horizon from the town of Alviso. It will be more noticeable at the Alviso Marina County Park and at the US FWS's Environmental Education Center because these visitor destinations will be much closer to the levee; but even there it is not expected to be significant. Please see Chapter 4.12 Aesthetics for additional discussion of the levee appearance and visual simulations of the proposed levees from various points in Alviso. Please also note that the levee will feature a trail on top which will provide enhanced (from slightly higher up) views of the surrounding landscape. In addition, the ponds will be restored to tidal marshes, bringing back more of what was originally the natural landscape in the Alviso area.
014_Lucas_2-3	Finally, find loss and degradation due to levee design is deficient in alternative analysis and substantiation. If precedent of choices of London and Venice for flood gates on Thames and Adriatic to repel intermittent flood surges from intense storm systems is evaluated, believe conditions are comparable to high water in Alviso.	Flooding from the south bay is not restricted to water course outfalls, thus flood gates or barriers alone would not provide a comprehensive solution to flood risk posed by the current system of salt pond dikes adjacent to Alviso.
014_Lucas_2-4	In regards to this Shoreline study's premise that riverine flooding is no longer a threat to Alviso, please review Guadalupe River flood project data from 1985 COE report which cites flow at confluence of Los Gatos Creek and Guadalupe River at 17,000 cfs. Add to this groundwater pumping at San Jose's International Airport and City of San Jose's urban stormwater runoff pumps at Montague Expressway of 5000 cfs plus global warming increase in storm intensity rate of watershed runoff of 3000 cfs and then 25,000 cfs is likely total at Alviso. Do not believe that you will find channel capacity in Lower Guadalupe River will accommodate 25,000 cfs. SCVWD used to remove sediment annually from alternate sides of channel but gave practice up years ago. To quote from your COE earlier 1989 Shoreline Study; "land subsidence has increased both tidal and fluvial flood problems in South Bay.....Fluvial problems have been increased by land subsidence because stream channels were reduced in elevation relative to the Bay and the gradients of the channels were flattened near the Bay. This increases backwater effects of high tides, increases the deposition of sediment, and reduces flow velocities and channel capacities. Subsidence also increased interior drainage problems because protected areas were reduced in elevation relative to drainage channels and the Bay so that gravity drainage has become less effective...." .....and the report goes on to evaluate Sea Level Rise. With these constraints in fluvial capacity, believe incidence of stormwater overbanking upstream from Alviso is of sufficient concern to compromise integrity of super levee as proposed protection for inboard commercial development and neighborhoods. In ignoring fluvial flooding feasibility this FR/EIS/EIR is therefore deficient.	Flood risk due to fluvial or riverine sources has been addressed by the current levee system, which was designed with consideration to downstream tidal conditions and potential for coincident events. With regard to the potential 25,000 cfs downstream, we do not agree. Pumping is controllable, and would not likely be added to a peak watershed's flow due to timing within the system. There are no currently credible estimates of specific hydrologic changes in runoff due to "global warming" as cited which may be downscaled to the watershed scale, though we agree that changes in future hydrology are certainly possible under many future climate change scenarios. The Guadalupe River (downtown and lower Guadalupe) project is inspected annually by the Corps and by the Santa Clara Valley Water District. Any significant shoaling in the channels would be noted in the report, and a channel capacity evaluation would be made. The study has comprehensively analyzed fluvial hydrology, hydraulics and sedimentation, and we do not agree that consideration of fluvial flood risk has been neglected. (Reference App D1, Scott 2009 analysis) The conclusions from the 1989 report are still relevant in the study area; however riverine levee systems are now in places which address fluvial flood risk. Currently, there is an increasing risk of tidal flooding as the reliability of the salt pond dike systems to control low frequency tidal flooding continues to decrease over time with sea level rise. Stormwater drainage is impacted by subsidence and will continue to rely on pumping to maintain drainage within Alviso.
014_Lucas_2-5	The 1989 SF COE Shoreline Study gives consideration to frequency of 'coincidental tidal and fluvial events', with a correlation of both extreme high tides and high fluvial runoff caused by low pressure storm systems. Such conditions need to be fully analyzed in proposed Shoreline Phase 1 levee project Draft FR/EIS/EIR, including tide and wind combinations with resulting 3 foot wave ride-up in South Bay under El Nino events. Did not find such analysis in three volume draft or did I miss it? Is study deficient in regards perfect storms?	The current study did consider coincident tidal events when analyzing fluvial and tidal flood risk, various analyses may be found throughout Appendix D2. With regard to tidal flood risk, several methods were utilized to develop extreme or total tidal water levels. Extreme water levels for shoreline are based on a statistical analysis of historical storm tide levels in San Francisco Bay. The proposed levee design with the ecotone vegetation would not experience large wave run up and any wave energy would be quickly dissipated by the vegetation in the 30:1 ecotone slope.

014_Lucas_2-6	Global warming reinforces the guarantee of correlation of king high tides with intense storm systems. Former study evaluated global meteorological conditions with local meteorological conditions, local winds, freeboard and interior drainage. The proposed project Draft FR/EIS/EIR needs to update relevant data and do the same.	Assuming that global warming refers to impacts from climate change or variability, including sea level change, the current study has accounted for impacts as prescribed by USACE policy and guidance, ER 1100-2-1862, “Incorporating Sea Level Change in Civil Works Programs”, and ETL 1100-2-1, “Procedures to Evaluate Sea Level Change, Impacts, Responses, and Adaptation” As part of the analysis, 110 years of tidal records were analyzed to develop extreme water level statistics. These statistics were adjusted to account for sea level rise over a 100 year future period for three different future climate scenarios to determine a design levee height which would provide tidal flood risk reduction while accounting for an unknown future level of sea level rise. The combination of storms and King Tide suggested by the comment is one of many possible storm event combinations, which are represented in the overall extreme water level statistics and translate to the proposed design levee height of 15.2 feet.
014_Lucas_2-7	Such evaluation needs to also include analysis of present Napa River flood project and its wetlands retention basin between Downtown Napa and San Francisco Bay. The preservation of this marsh basin to retain peak Napa River flood flows for sufficient time to mute river reflux from high water in San Francisco Bay is similar to scenario of storm systems affecting either Coyote Creek or Guadalupe River systems or both in protection of Alviso from river reflux over-banking.	A number of alternatives to address the flooding from the bay were considered and discussed. The bay buffer water basin is not necessary with the proposed levee design since there are no backwater effects and would not fulfill the habitat restoration objective as the proposed project does.
014_Lucas_2-8	As the Golden Triangle, between #237 and #101, no longer offers land available for sizeable retention basin, (though it had been suggested in past) it would appear wetlands inboard of railroad tracks and drawbridge would be most flexible retention marsh complex capable of absorbing most climactic storm systems that might hold over both Mt. Umunhum and Mount Hamilton.	Using the railroad line to create tidal basins would conflict with the Shoreline Study’s identified habitat goals of tidal restoration as tidal basins and tide gates usually preclude full tidal restoration. While muted tidal systems can provide valuable habitat, they do not have all of the geomorphic and ecological functions that existed historically when the South Bay was dominated by unconstrained tidal marshes. Furthermore, the creation of tidal detention basins would conflict with the habitat goals of the South Bay Salt Pond Restoration Project and other regional plans, such as the Baylands Ecosystem Habitat Goals and the United States Fish and Wildlife Services (USFWS) Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California as it would not provide large areas of contiguous salt marsh. A central goal of these plans is to create largely unbroken swaths of salt marsh habitat in the far South Bay and reconnect isolated wildlife populations. For these reasons, these types of flood protection solutions were not carried forward for further analysis.
014_Lucas_2-9	A mosaic of marsh habitat can be managed in sustainable, environmental manner to accommodate resident endangered species, rare or locally unique birds and species of special concern, historically known to reside or forage in South Bay wetlands. Vista from Alviso to Mount Diablo Range is especially valuable to preserve.	Consistent with the Baylands Ecosystem Habitat Goals and the United States Fish and Wildlife Services (USFWS) Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California the project will allow for the restoration of large areas of tidal marsh which will benefit resident endangered species.
014_Lucas_2-10	The South Bay Shoreline alternative of flood gates at the railroad crossing at Drawbridge (Coyote Creek) and Gold Street (Guadalupe River) is preferred alternative that was not investigated and which I find is only one that can satisfy all constraints of flood protection for subsided Alviso neighborhoods, and for Highways #237 and #880 under extended high water conditions. In regards upgrade of railroad line levee from Alviso to Fremont, actual COE flood control levee could be sited inboard or outboard, whichever ties in best with infrastructure at either end. Flood gates to be implemented only in occasional, high storm events - frequency similar to implementation of flood gates on River Thames - would leave full, normal tidal action to replenish refuge marshes. This preserves continuity of wildlife corridor and mitigation marshes in Reach 1 of Coyote Creek and around south end of San Francisco Bay.	Early in the Shoreline Study planning process, options similar to the commenter’s suggestion were considered such as hardening outboard levees and installing tide gates strategic locations to hold back tidal flooding. This would convert the former south bay salt ponds to essentially flood detention basins. Such basins can successfully be managed as either tidal and/or riparian flood flows (depending on how they are designed) and create habitat, but they result in highly-altered environments with the need for intensive, long-term management. Consistent with the vision created by the South Bay Salt Pond Restoration Project and consistent with Corps of Engineers ecosystem restoration policy, the Shoreline Study has tried to incorporate more natural, less managed solutions into the project, as much as possible, in order to reduce environmental impacts, costs, and long-term complications from highly-managed systems. Using the railroad line to create tidal basins would also conflict with the Shoreline Study’s identified habitat goals of tidal restoration through an adaptive management process. Tidal basins and tide gates usually preclude full tidal restoration. While these muted tidal systems can provide valuable habitat, they do not have all of the geomorphic and ecological functions that existed historically when the South Bay was dominated by unconstrained tidal marshes. Furthermore, the creation of tidal detention basins would conflict with the habitat goals of the South Bay Salt Pond Restoration Project and other regional plans, such as the Baylands Ecosystem Habitat Goals and the USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California. A central goal of these plans is to create largely unbroken swaths of salt marsh habitat in the far South Bay and reconnect isolated wildlife populations. For these reasons, these types of flood protection solutions were not carried forward for further analysis.
014_Lucas_2-11	Cost benefit analysis would be improved with protection of #880 at Dixon Landing and City of Milpitas?	The Recommended Plan has been formulated to address the risk of tidal flooding to the community of Alviso from a potential failure of existing dikes in the Study Area located west of Interstate 880. The highway is not currently threatened by tidal flooding from a failure of these dikes. Further, this plan will not increase the risk of tidal flooding to the highway. Although the plan was formulated to address tidal flooding from the bay, the report does include the results of hydrologic and hydraulic analyses for Coyote Creek, including floodplain mapping (see Appendix D1 Coastal Engineering and Riverine Hydraulics Summary). This analysis shows that flow breakout locations are concentrated downstream from Interstate 880 and the highway is not at risk from overtopping for the one percent annual chance exceedance event.

From: JLucas1099@aol.com
Sent: Thursday, January 29, 2015 1:27 PM
To: Shoreline Environment SPN
Subject: [EXTERNAL] South San Franicisco Bay Shoreline Phase 1 Project Draft DEIS/DEIR (cont. com.3)

Mr. Bill DeJager
1455 Market Street
San Francisco, California 94103

January 29, 2015

RE: South San Francisco Bay Shoreline Phase 1 Project (continued comment 3)

Dear Bill DeJager,

There were errata in the COE South San Francisco Bay Shoreline Project DEIS/DEIR that failed to mention in previous comments, but which believe are of sufficient importance to negatively effect project design.

In regards high tides, and three foot wave ride-up in South Bay please reference San Francisco District COE October 1984 San Francisco Bay Tidal Stage vs.Frequency Study for what believe is accurate definitive data. (Explain notation on Project DEIS/DEIR chart that claimed Coyote Creek tide data as N/A not applicable?) 1

For sediment transfer data to South Bay, please reference Professor Krone studies as included in COE 1989 Sediment Budget Study for San Francisco Bay. Believe Professor Krone's scientific observations have been born out by rapid marsh restoration soil recruitment experienced in Island Ponds along lower Coyote Creek. One has only to stand on drawbridge to appreciate sediment laden tides that extend to extreme South Bay. 2

Project DEIS/DEIR says 'sediment supplies to San Francisco Bay via Sacramento San Joaquin Delta tend to settle in upper bays'. Believe this sufficiently misleading to necessitate DEIS/DEIR replace 2.5 sediment section with accurate COE earlier sediment study data. (E 20) 3

"South Bay has undergone net erosion from 1956 to 1983 rather than deposition '...and following sediment yield to South Bay data I find flawed and lacking in substantiation.

E 23 - Claims wind driven waves are minimal and in 2.6.2 that 'swell' is not significant factor. Please explain statement in view of research by COE 1984 tidal frequency report that finds South Bay ride-up of three feet. 4

"The largest remaining flood risk for Alviso comes from tidal floods", is completely unsubstantiated claim and is critical deficiency in Project DEIS/DEIR. Note previously cited data on Guadalupe River channel capacity. 5

Then did find references to flood concerns on neighboring streams of Adobe Creek and Matadero Creek to be unrelated to interface with San Francisco Bay tides in general and City of Palo Alto Flood Basin in particular. The timing of peak stream flows coming out of Santa Cruz Mountain Range and reaching San Francisco Bay in three to four hours does coincide with peak storm event tides driven from Golden Gate by wind and wave down Bay to Palo Alto and Mayfield Slough in three hours, and this DEIS/DEIR should have analyzed. 6

Conditions are quite different in Alviso when storm system hits Mount Umunhum, historically, pre-reservoir, it took peak flows 14 hours to reach Montague Expressway, which will not coincide with high intensity storm king tides and waves driven down Bay from Golden Gate in four hours? DEIS/DEIR needs to analyze this. 7

However, if this same storm system holds over either Mount Umunhum or Mount Hamilton, or both, for 24 or 48 hours then a more complex peak riverine flood flow and riverine reflux scenario needs to be evaluated. Has this been done or is it planned to be done?

In context of global warming and ocean rise associated with the increases in storm intensity and storm duration that is now experienced throughout the world, find for DEIS/SEIR not to include relevant data on Coyote Creek and 8

Guadalupe River flows in assessing South Bay tidal flooding to be a critical deficiency. Or is discussion of El Nino and Pineapple Express storm system scenario in three volume report that I missed?

There is another aspect to evaluation of peak riverine storm flows as they reach high king tide water levels, and that is anticipating where historic break-away points or over-banking of channels will occur. This needs to be investigated if a super levee is constructed around Alviso and Water Treatment Plant industrial parks it will tend to trap inboard flows from exiting to bay marshes and create a deadly deep retention basin in Alviso. Will DEIS/DEIR evaluate such conditions that are likely to occur in intertwined South Bay delta channels? **9**

There is the unique method of interface with South Bay in adjacent stream systems of San Tomas Aquino Creek and Sunnyvale East and Sunnyvale West Channels as they outflow to Guadalupe Slough which needs to be referenced in Shoreline Project report. Here historic series of canals to collect storm water runoff from valley floor agriculture and neighborhoods serves as buffer to protect water quality in salt pond production. As land uses have changed, these canals can now serve as buffer to absorb stream flows and release to bay as high tides recede, with an added aid of inboard wetlands preserves to mute peaks from both stream and bay. **10**

This canal complex is bound to be threatened by further extension of proposed super levee but feel efficacy and flexibility of its design that can accommodate, so far, range of uses for industrial park, park lands and water treatment facilities which abut the bay here, as well as sustain prime habitat for wildlife and waterfowl of South Bay needs to be accurately documented. Present use of parallel canals especially suits waterfowl.

Note that Northern Channel adjacent to Moffett Field was found by US Navy to host four dozen western pond turtles rather than just five as recorded in DEIS/SEIR. **11**

Anadromous fish species of steelhead and Chinook salmon need special considerations in any alterations to channels within South Bay marshes. Proposals in regards pilot channels between sloughs and salt ponds must consider that pulse flows only attract migratory species to mainstream channels that can reach upper watershed and spawning areas. Pulse flows need be at times for migration that provide cool upstream habitat of sustainable duration as well. Cool stream temperatures are especially important for health of salmon runs. **12**

Did not find full range description of avian species, both resident and migratory, that historically have found South Bay marsh habitat viable and healthy refugia. Was this in volume I missed? ie Which marshes are attracting and able to sustain special or unique species? What marsh habitat needs to be created? **13**

SCVWD Coyote Creek mitigation water-bird pond is not as successful as it was initially. How will super levee interface with wildlife corridor and critical wetlands and marsh acreage which supports endangered species of California Clapper Rail and Salt Marsh Harvest Mouse here, in lower Reach 1 of Coyote Creek?
(Locations of nesting and foraging sites for these endangered species was in earlier comment enclosures). **14**

Thank you for bearing with my extended range of comments and can provide referenced COE documents.

Libby Lucas,
174 Yerba Santa Ave.,
Los Altos, CA 94022

ID	Issue Text	Response Text
015_Lucas_3-1	There were errata in the COE South San Francisco Bay Shoreline Project DEIS/DEIR that failed to mention in previous comments, but which believe are of sufficient importance to negatively effect project design. In regards high tides, and three foot wave ride-up in South Bay please reference San Francisco District COE October 1984 San Francisco Bay Tidal Stage vs.Frequency Study for what believe is accurate definitive data. (Explain notation on Project DEIS/DEIR chart that claimed Coyote Creek tide data as N/A not applicable?)	The DEIS/DEIR for this project utilized a similar technical procedure to update flood frequency data. Dynamic components of the water level were considered in the flood frequency analysis, but because of the physical characteristics of the area, (ie shallow depths), and the very low probability of a sustained wind of sufficient magnitude and direction coincident with high tide and surge. The design of the proposed ecotone levee with a 30:1 slope would dampen any significant wave run up should one occur. The Coyote Creek tide gage data was marked as “N/A” since it has only been intermittently operated since the 1980's and does not have sufficient records to develop tidal stage frequency statistics.
015_Lucas_3-2	For sediment transfer data to South Bay, please reference Professor Krone studies as included in COE 1989 Sediment Budget Study for San Francisco Bay. Believe Professor Krone's scientific observations have been born out by rapid marsh restoration soil recruitment experienced in Island Ponds along lower Coyote Creek. One has only to stand on drawbridge to appreciate sediment laden tides that extend to extreme South Bay.	The updated sediment budget and hydrodynamic modeling confirms your observation that marsh has been restored in Island Ponds along lower Coyote Creek. The sediment budget discussion in the technical appendix will be updated for clarity. Krone (1979) analyzed baywide bathymetric change from 1870 to 1950, and noted the slow migration of excess sediment resulting from historic hydraulic mining practices. This migration took place over decadal time scales. This study provided strong evidence of the temporal lag between sediment supply from the delta and sediment availability to the Central and South Bay systems. The analysis by Ogden Beeman & Associates (1992) includes a baywide evaluation of morphologic change from 1955-1990. Of note in this study is the pattern of persistent erosion in South Bay north of Dumbarton Bridge, and persistent deposition in Far South Bay (south of Dumbarton Bridge). This deposition persisted in spite of dramatic subsidence in Far South bay associated with drought and groundwater withdrawal. Some general conclusions are drawn from these studies, and from the results of observation and numerical modeling : Wind wave resuspension tends to mobilize the sediment in the mudflats of South Bay and Far South Bay. Residual circulation induced by these summer winds tends to be toward Far South Bay in the shallows, and towards Central Bay in the deeper tidal channel. Hence, as wind waves resuspends sediment in the shallows, the sediment is driven by residual circulation into Far South Bay. Wave heights in Far South Bay are mitigated by their passage though the gap at Dumbarton Bridge (Smith, 2009). This can create a suspended sediment concentration gradient across the Dumbarton Bridge opening, and drive a net tidal dispersive transport towards Far South Bay. Sediment deposits in Far South Bay until an equilibrium is achieved between sediment supply and wind wave erosion. The excess sediment is then transported towards Central Bay via the main tidal channel, and recirculates through the system. Locally derived sediment from tributaries is a significant fraction of the total available sediment in the system. These sediments are transported together with the sediments derived from the Delta.
015_Lucas_3-3	Project DEIS/DEIR says 'sediment supplies to San Francisco Bay via Sacramento San Joaquin Delta tend to settle in upper bays'. Believe this sufficiently misleading to necessitate DEIS/DEIR replace 2.5 sediment section with accurate COE earlier sediment study data. (E 20) "South Bay has undergone net erosion from 1956 to 1983 rather than deposition '...and following sediment yield to South Bay data I find flawed and lacking in substantiation.	Comment noted. Section 2.5 of the Coastal Engineering and Riverine Hydraulics Summary (now Appendix D1) will be updated in FEIS. The general circulation pattern of sediment within San Francisco Bay has been well described by several researchers (e.g., Ogden Beeman & Associates, 1992). Quantification of these various transport mechanisms is very problematic, but a qualitative description of the dominant processes can be given for general guidance. Sediment supplied to the Bay via the Sacramento/ San Joaquin Delta tends to settle in the upper bays. Some large flow events can carry suspended sediment all the way to Central and South Bay, but most of the annual sediment load is deposited further upstream. Most of this sediment inflow occurs during the winter and spring. In the summer, daily winds tend to resuspend the sediment in the shallows via wind-wave action. The sediment is then slowly transported though the bay system to Central Bay. When the sediment reaches Central Bay, it either resettles in Central Bay, travels through the Golden Gate and out of the system, or is transported into South Bay. Once in South Bay, the sediment is either deposited within the bay, or passes through Dumbarton Bridge into Far South Bay. Wind wave resuspension tends to mobilize the sediment in the mudflats of South Bay and Far South Bay. Residual circulation induced by these summer winds tends to be toward Far South Bay in the shallows, and towards Central Bay in the deeper tidal channel. Hence, as wind waves resuspend sediment in the shallows, the sediment is driven by residual circulation into Far South Bay. In addition, wave heights in Far South Bay are mitigated by their passage though the gap at Dumbarton Bridge (Smith, 2009). This can create a suspended sediment concentration gradient across the Dumbarton Bridge opening, and drive a net tidal dispersive transport towards Far South Bay. Sediment deposits in Far South Bay until an equilibrium is achieved between sediment supply and wind wave erosion. The excess sediment is then transported towards Central Bay via the main tidal channel, and recirculates through the system. Locally derived sediment from tributaries is a significant fraction of the total available sediment in the system. These sediments are transported together with the sediments derived from the Delta.
015_Lucas_3-4	E 23 - Claims wind driven waves are minimal and in 2.6.2 that 'swell' is not significant factor. Please explain statement in view of research by COE 1984 tidal frequency report that finds South Bay ride-up of three feet.	Extensive hydrodynamic computer modeling not available in the early 1980’s confirmed the statements in the technical report. Due to the sheltering effect provided by the neighboring salt ponds and levees, seas (wind-generated short-period waves) within the hydrologic study area are minimal. Additional factors such as water depth, obstructions and other physical factors impact waves. The hydrodynamic model used in this technical study is the three-dimensional hydrodynamic model UnTRIM (Casulli and Zanolli, 2002). The UnTRIM Bay-Delta Model (MacWilliams et al., 2007; MacWilliams and Gross, 2007; MacWilliams et al., 2008; MacWilliams et al., 2009) was applied to evaluate water levels in the project area under with project conditions. The UnTRIM Bay-Delta model extends from the Pacific Ocean through all of San Francisco Bay and the entire Sacramento-San Joaquin Delta. A high-resolution model grid of the project site was developed using the most recent available bathymetry. The model also provided information on waves and sediment transport potential which was used in the study. More information on the model and its application may be found towards the end of Appendix D1 (Appendix E in the draft report) in the “South San Francisco Bay Long Wave Modeling Report” section.

015_Lucas_3-5	"The largest remaining flood risk for Alviso comes from tidal floods", is completely unsubstantiated claim and is critical deficiency in Project DEIS/DEIR. Note previously cited data on Guadalupe River channel capacity.	In terms of potential flood volume and extent of flooding that could potentially occur in the community of Alviso, the largest flood risk is from a coastal storm event combined with a failure of one or more outer dikes in the salt pond-dike complex adjacent to Alviso. Appendix D2 of this report, "Tidal Flood Risk Analysis Summary Report" presents in detail this flood risk. We agree that a more holistic discussion of flood risk would be beneficial to the project documentation and will update Appendix D with a summary.
015_Lucas_3-6	Then did find references to flood concerns on neighboring streams of Adobe Creek and Matadero Creek to be unrelated to interface with San Francisco Bay tides in general and City of Palo Alto Flood Basin in particular. The timing of peak stream flows coming out of Santa Cruz Mountain Range and reaching San Francisco Bay in three to four hours does coincide with peak storm event tides driven from Golden Gate by wind and wave down Bay to Palo Alto and Mayfield Slough in three hours, and this DEIS/DEIR should have analyzed.	The draft Integrated Document involved such an analysis. Adobe and Matadero Creeks were investigated in the "without project" condition by developing hydraulic models to define the riverine response to the downstream tidal conditions. The coincidence of tide was investigated and areas of inundation for frequency-based storm events were determined by modeling breakout flows on the floodplain. A coincident frequency analysis was performed to determine the effects of coincidence of the peak tide and peak stream discharge and to determine the downstream boundary water surface levels. The coincident frequency analysis predicted the downstream boundary condition, influenced by tidal stage. The coincident frequency analysis developed a probability for the riverine downstream boundary condition using the method of total probability. Hourly tide probability distribution functions at the river mouths were obtained in the vicinity of Adobe Creek, Permanente Creek, Stevens Creek, Guadalupe Slough, Alviso Slough and Coyote Creek. Additional details of this analysis may be found in Appendix D1, "Riverine Hydraulics" , May 2013.
015_Lucas_3-7	Conditions are quite different in Alviso when storm system hits Mount Umunhum, historically, pre-reservoir, it took peak flows 14 hours to reach Montague Expressway, which will not coincide with high intensity storm king tides and waves driven down Bay from Golden Gate in four hours? DEIS/DEIR needs to analyze this. However, if this same storm system holds over either Mount Umunhum or Mount Hamilton, or both, for 24 or 48 hours then a more complex peak riverine flood flow and riverine reflux scenario needs to be evaluated. Has this been done or is it planned to be done?	While the specific investigation was not done for the study, extensive modeling was done on the rivers in the project area which may be found in Appendix D1, "Riverine Hydraulics" , May 2013.
015_Lucas_3-8	In context of global warming and ocean rise associated with the increases in storm intensity and storm duration that is now experienced throughout the world, find for DEIS/SEIR not to include relevant data on Coyote Creek and Guadalupe River flows in assessing South Bay tidal flooding to be a critical deficiency. Or is discussion of El Nino and Pineapple Express storm system scenario in three volume report that I missed?	El Nino Southern Oscillation events do impact both hydrology and bay water levels. The impact on water levels is described in Appendix D2, 3.2.6 and considered in the water level statistics. Specific impacts on fluvial hydrology due to global warming were not studied as there is no definitive downscaled hydrology for global warming scenarios currently available at the small watershed scale at the time the Riverine Hydraulic study was in progress.
015_Lucas_3-9	There is another aspect to evaluation of peak riverine storm flows as they reach high king tide water levels, and that is anticipating where historic break-away points or over-banking of channels will occur. This needs to be investigated if a super levee is constructed around Alviso and Water Treatment Plant industrial parks it will tend to trap inboard flows from exiting to bay marshes and create a deadly deep retention basin in Alviso. Will DEIS/DEIR evaluate such conditions that are likely to occur in intertwined South Bay delta channels?	The effects of riverine flows on the tidally-dominated South San Francisco Bay shoreline were evaluated and are included in Appendix D1 *Coastal Engineering and Riverine Hydraulics Summary*. Additionally, the effects of the proposed coastal flood protection levee on riverine hydraulics were quantified. The extents of the tidal influence along the streams are limited to the lower reaches. The extent of the tidal influence is dependent on the relative magnitudes of the flows in the streams and the tide itself. Frequent, low magnitude flows are much more greatly influenced by tides than less frequent, large magnitude events like the 1% annual chance exceedance (100-year) event. For example, water surface elevations in the Guadalupe River during a 1% event will be the same upstream of Highway 237, 1000 feet from the bay, if the tide elevation is 2 ft as they would be if the tide were to be 11 ft. On the other hand, water surface elevations during a 50% annual chance exceedance (2-year) event will measurably higher (greater than 0.1 ft) as far upstream as Trimble Road (about 4 miles) over the same range of tidal conditions.
015_Lucas_3-10	There is the unique method of interface with South Bay in adjacent stream systems of San Tomas Aquino Creek and Sunnyvale East and Sunnyvale West Channels as they outflow to Guadalupe Slough which needs to be referenced in Shoreline Project report. Here historic series of canals to collect storm water runoff from valley floor agriculture and neighborhoods serves as buffer to protect water quality in salt pond production. As land uses have changed, these canals can now serve as buffer to absorb stream flows and release to bay as high tides recede, with an added aid of inboard wetlands preserves to mute peaks from both stream and bay. This canal complex is bound to be threatened by further extension of proposed super levee but feel efficacy and flexibility of its design that can accommodate, so far, range of uses for industrial park, park lands and water treatment facilities which abut the bay here, as well as sustain prime habitat for wildlife and waterfowl of South Bay needs to be accurately documented. Present use of parallel canals especially suits waterfowl.	San Tomas Aquino Creek and Sunnyvale East and West Channels are outside of the project area in EIA 8, 9 and 10. These streams are hydrologically independent from the proposed Shoreline Study Phase 1 area (EIA11) and will not be affected by the construction of a flood protection levee in the Phase 1 area. The SCVWD is currently undertaking an engineering study to consider coastal flooding induced by tides and storm surge as well as fluvial breakout flows for the remaining areas of Santa Clara County (EIAs 1 to 10). This study will assess potential tidal vulnerability with three future sea level rise scenarios on a risk and uncertainty basis and evaluate cost/benefit for the preferred alternative under 1% tidal flood protection with three sea level rise conditions. The analysis is expected to be complete by the end of December 2016. This analysis will include San Tomas Aquino Creek and Sunnyvale East and West Channels. Habitat restoration goals for these areas will be consistent with the vision created by the South Bay Salt Pond Restoration Project and consistent with USACE ecosystem restoration policy.
015_Lucas_3-11	Note that Northern Channel adjacent to Moffett Field was found by US Navy to host four dozen western pond turtles rather than just five as recorded in DEIS/SEIR.	The Northern Channel is adjacent to Moffett Field which will be addressed in subsequent phases of the Shoreline Study. It is not part of the current project area. While Western pond turtles could occasionally occur in the Shoreline Study Phase 1 area, such appearances are expected to be very infrequent due to the lack of viable populations along the lower reaches of streams such as Coyote Creek or the Guadalupe River as discussed in Section 4.7.
015_Lucas_3-12	Anadromous fish species of steelhead and Chinook salmon need special considerations in any alterations to channels within South Bay marshes. Proposals in regards pilot channels between sloughs and salt ponds must consider that pulse flows only attract migratory species to mainstream channels that can reach upper watershed and spawning areas. Pulse flows need be at times for migration that provide cool upstream habitat of sustainable duration as well. Cool stream temperatures are especially important for health of salmon runs.	The Shoreline Study project is not proposing to manage the flows in and out of ponds but to let natural processes determine flows, shape channels, and restore the marshes. There would be no barriers to salmonid use of the pilot channels or pond habitats. Pulse flows are sometimes used in freshwater streams to facilitate salmonid migration, but this project would not alter stream flows. Water temperatures can be a concern for salmonids in local streams but are not an issue for these fish when they are in San Francisco Bay. As has been done on other restoration project around San Francisco Bay, small pilot channels would be excavated through fringing marsh in order to enhance the tidal connection between the former salt pond and the adjacent sloughs and bay. Monitoring data from the Island Ponds restoration project indicates that these channels as

		well as the ponds are used by numerous fish species and could be used by migratory salmonids. Creating pilot channels should have a beneficial effect on all fish species by making restored marsh habitat available to them.
015_Lucas_3-13	Did not find full range description of avian species, both resident and migratory, that historically have found South Bay marsh habitat viable and healthy refugia. Was this in volume I missed? ie Which marshes are attracting and able to sustain special or unique species? What marsh habitat needs to be created?	The avian species lists have been reviewed by the Refuge staff and USFWS. Please see App B5 with Species Scientific Names for a full list of species. See Chapter 4.7.1.2.7 that describes existing conditions of bird species. Several references to other documents were made because birds are widely studied, as well as references to the SBSP Restoration Project for additional information.
015_Lucas_3-14	SCVWD Coyote Creek mitigation water-bird pond is not as successful as it was initially. How will super levee interface with wildlife corridor and critical wetlands and marsh acreage which supports endangered species of California Clapper Rail and Salt Marsh Harvest Mouse here, in lower Reach 1 of Coyote Creek? (Locations of nesting and foraging sites for these endangered species was in earlier comment enclosures).	The proposed levee alongside Pond A18 would tie into the Coyote Creek Flood Protection Levee west of Reach 1A in approximately the same location where the existing A18 berm connects. The lower reaches of Coyote Creek would be unchanged by the proposed levee alignments. The proposed levee alongside Pond A18 would be larger than the existing one to protect from tidal flooding, but it would not be any higher than the existing levee alongside Reach 1A, nor would it change the hydrology in this reach. Therefore the project will not adversely affect wildlife corridors and critical wetlands. Overall the project will provide a beneficial effect by creating continuous marsh habitat between Coyote Creek and Alviso Slough which will support Ridgway's rail and salt marsh harvest mouse.

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

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SCL/237/PM VAR
SCH# 2006012020

Mr. Michael Martin
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Dear Mr. Martin:

South San Francisco Bay Shoreline Phase I Study – Draft Environmental Impact Report (DEIR)

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. Please refer to Caltrans comment letter, dated October 2, 2014, on the Notice of Preparation (NOP). We have reviewed the DEIR and have the following comments to offer.

Traffic Impact Study (TIS)

As requested in our NOP letter, please provide a TIS for this proposed project. The TIS should include construction traffic impacts and potential traffic impacts to Interstate (I-) 880 and State Route (SR) 237 due to flooding. Also, the time between 9:00 am and 3:00 pm is not completely outside of the weekday a.m. and p.m. peak commute traffic hours for I-880 and SR 237. I-880 and SR 237 starts ramp metering as early as 2:30 pm in the afternoon. Delivery truck and worker trips leaving the construction site during ramp metering hours are likely to impact ramp metering operations causing longer queues on freeway on-ramp. The extended queues may spill back on the local street affecting the local street operation. Caltrans recommends mitigation be included for this impact or trips be strictly limited to outside peak commute hours. 1

Lead Agency

As the lead agency, Santa Clara Valley Water District (SCVWD) is responsible for all project mitigation, including any needed improvements to State highways. The project's financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document. 2

Hydrology & Design

Further hydrological and geological studies, continued monitoring of the development in this area, the maintenance of current levees, and construction of new levees to ensure I-880 and SR 237, particularly within vicinity of the I-880/Dixon Landing Road interchange, remain free of flooding should be conducted in coordination with Caltrans District 4. The studies and the DEIR are incomplete, in that they do not address any effects of the proposed development on the Caltrans or local transportation infrastructures. 3

1. The floodwall and gates across the Artesian Slough would eventually cause a backwater, when the outbound tides are high and flow out of the slough is restricted. As sea level rises, will pumps eventually be used to pump the accumulated flows over the levee? Caltrans recommends the DEIR discuss the potential for backwater and its potential impacts on I-880 and SR 237 and proposed mitigation for those impacts. 4

2. It appears from the DEIR that the preferred levee alignment eventually terminates at the existing levee along the Alviso Slough. Caltrans recommends the DEIR clarify precisely where the preferred levee alignment terminates. 5

3. The DEIR is not clear where the proposed levee actually terminates along the southern border of Pond 18. Caltrans is concerned about possible flooding due to sea level rise within the vicinity of the I-880/Dixon Landing Road interchange, where there is the greatest risk for flooding. Please clarify as to which existing levee that this new levee will conform. 6

4. It appears the SR 237 and I-880 existing bridges are at elevations high enough to accommodate future sea level rise and that none of the bridges are in danger of overtopping due to sea level rise. However, Caltrans recommends the DEIR discuss in detail the inequality of water table pressure caused by the proposed project and the possibility for water seepage around the abutments of the nearby bridge structures. Caltrans District 4 Hydraulics Office will also check the roadway profiles along both these facilities to assess the risk of flooding due to future sea level rise.

   The existing bridges within the project area are: 7

   - Alviso Slough/Guadalupe River Bridge, SCL-237, post mile (PM) 6.406, Bridge Number 37-244 R & L with an overtopping flood elevation of 7.42 meters on North American Datum (NAD)83 vertical datum;

   - Coyote Creek Bridge, SCL-237, PM 8.72, Bridge Number 37-84 R & L with an overtopping flood elevation of 11.6 meters on NAD83 vertical datum; and

   - Penitencia Creek Bridge, SCL-880, PM 10.38, Bridge Number 37-0582 R & L with an overtopping flood elevation of 5.2 meters on NAD83 datum.

Landscape Architecture

1. Seeding and/or planting is proposed for the bayward side of the Flood Risk Management (FRM) Levee, but not for the landward side. Caltrans recommends that planting on the landward side of the levee, as well as the bayward side, be included as a minimization measure in Section 4.12.2.1. Planting the landward side would also help to ensure that invasive weeds do not establish and proliferate on the levee. **8**

2. Caltrans recommends the legend for Figure 4.12.2 Photograph of Location Points be modified to include a list of the Alternatives associated with the different levee alignments. **9**

3. Figure 4.12-7 Simulated View from Location 2 appears to be titled incorrectly; instead, it appears as though the view should be noted the same as Figures 4.12-5 and 4.12-6. **10**

4. Caltrans recommends that a Visual Impact Assessment be prepared as a Technical Document and included as an appendix to the DEIR. **11**

Transportation Management Plan

Caltrans recommends a Transportation Management Plan (TMP) or construction TIS may be required of the developer for approval by Caltrans prior to construction. TMPs must be prepared in accordance with California *Manual on Uniform Traffic Control Devices.* Further information is available for download at the following web address: http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/Part6.pdf. **12**

Please ensure that such plans are also prepared in accordance with the transportation management plan requirements of the corresponding jurisdictions. For further TMP assistance, please contact the Office of Traffic Management Plans at (510) 286-4647.

Encroachment Permit

Please be advised that any work or traffic control that encroaches onto the State ROW requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to: David Salladay, District Office Chief, Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See this website for more information: http://www.dot.ca.gov/hq/traffops/developserv/permits. **13**

Should you have any questions regarding this letter, please contact Brian Brandert of my staff at (510) 286-5505 or brian.brandert@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
Acting District Branch Chief
Local Development - Intergovernmental Review

c: Scott Morgan, State Clearinghouse
Bill DeJager, U.S. Army Corps of Engineers – electronic copy

ID	Issue Text	Response Text
016_Caltrans-1	Traffic Impact Study (TIS): As requested in our NOP letter, please provide a TIS for this proposed project. The TIS should include construction traffic impacts and potential traffic impacts to Interstate (I-) 880 and State Route (SR) 237 due to flooding. Also, the time between 9:00 am and 3:00 pm is not completely outside f the weekday a.m. and p.m. peak commute traffic hours for I-880 and SR 237. I-880 and SR 237 starts ramp metering as early as 2:30 pm in the afternoon. Delivery truck and worker trips leaving the construction site during ramp metering hours are likely to impact ramp metering operations causing longer queues on freeway on-ramp. The extended queues may spill back on the local street affecting the local street operation. Caltrans recommends mitigation be included for this impact or trips be strictly limited to outside peak commute hours.	Thank you for your comment. Appendix A3 (Appendix L in the draft release) includes a preliminary Construction Traffic Access Route Plan that has been developed during this feasibility study stage of the project. A more detailed Transportation Management Plan, if requested by Caltrans, will be prepared prior to construction and if so, will follow the guidance provided by the CA Manual on Uniform Traffic Control Devices.
016_Caltrans-2	As the lead agency, Santa Clara Valley Water District (SCVWD) is responsible for all project mitigation, including any needed improvements to State highways. The project's financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document.	No significant impacts are identified to the state highway system of other transportation related resource, therefore no mitigation is proposed.
016_Caltrans-3	Hydrology & Design: Further hydrological and geological studies, continued monitoring of the development in this area, the maintenance of current levees, and construction of new levees to ensure I-880/Dixon Landing Road interchange, remain free of flooding should be conducted in coordination with Caltrans District 4. The studies and the DEIR are incomplete, in that they do not address any effects of the proposed development on the Caltrans or local transportation infrastructures.	The Shoreline Study is intended to protect against tidal flood event and takes into account sea level rise. The Shoreline Study has comprehensively analyzed riverine or fluvial hydrology, hydraulics and sedimentation. A coincident frequency analysis was performed to determine the effects of coincidence of the peak tide and peak stream discharge and to determine the downstream boundary water surface levels. Without-project coincident frequency analyses assumed that coastal water surface elevations and fluvial flows are independent. Subsequent to the original study, it was shown that flow in the Guadalupe River is well correlated with storm surge, and that tidal residuals of up to two feet may be expected due to the correlation. The coincident frequency analysis predicted the downstream boundary condition, influenced by tidal stage, for the unsteady HEC-RAS models. The maximum tidewater elevation modeled under without-project conditions was 13 feet NAVD 88. Maximum tidewater elevations were increased in the with-project models to 15 feet NAVD 88 to account for storm surge effects. Minimum tidewater elevation in both without and with-project conditions was 2.83 feet NAVD 88. The coincident frequency analysis only applied to the area of the channel where the tide driven water levels and the creek flow meet or commingle. Downstream of the commingling area the water levels are tidally driven and upstream of this area the water levels are dominated by the creek flow. Various analyses can be found in the Integrated Document's Technical Appendix D1. Based on the analysis there will be no effect on proposed development, Caltrans or local transportation infrastructures by this project.
016_Caltrans-4	1. The floodwall and gates across the Artesian Slough would eventually cause a backwater, when the outbound tides are high and flow out of the slough is restricted. As sea level rises, will pumps eventually be used to pump the accumulated flows over the levee? Caltrans recommends the DEIR discuss the potential for backwater and its potential impacts on I-880 and SR 237 and proposed mitigation for those impacts.	The San Jose Regional Wastewater Facility is anticipating the need to pump effluent in the future as a response to sea level rise with or without the proposed project. The project team is continuing to analyze the configuration and operations of the proposed closure on Artesian Slough to avoid the need to install pumping sooner than would otherwise occur in a "without-project" condition. Backwater effects occurring during a higher water event (~ hours) are very unlikely to induce substantial flooding in the project area or beyond to I-880 and SR237.
016_Caltrans-5	It appears from the DEIR that the preferred levee alignment eventually terminates at the existing levee along the Alviso Slough. Caltrans recommends the DEIR clarify precisely where the preferred levee alignment terminates.	The proposed levee alignment terminates, and connects to, the existing area of high ground near the former Alviso Marina. This area is sufficiently high and wide to provide a continuous line of flood protection between the downstream extent of the existing Guadalupe River FRM features and the proposed levee. A new figure, Figure 3.10 1. Recommended Plan Flood Risk Management Levee Connections to Existing Flood Risk Management Levees, was added to Section 3.10 to show where levee facilities in the project area exist today and where the tie-ins for the proposed levee will be.
016_Caltrans-6	3. The DEIR is not clear where the proposed levee actually terminates along the southern border of Pond 18. Caltrans is concerned about possible flooding due to sea level rise within the vicinity of the I-880/Dixon Landing Road interchange, where there is the greatest risk for flooding. Please clarify as to which existing levee that this new levee will conform.	The proposed levee alignment terminates, and connects to, the existing Coyote Creek Bypass FRM levee on the left bank of Coyote Creek. The noted area of concern is located on the opposite bank of Coyote Creek from the Shoreline Phase I project. A new figure, Figure 3.10 1. Recommended Plan Flood Risk Management Levee Connections to Existing Flood Risk Management Levees, was added to Section 3.10 to show where levee facilities in the project area exist today and where the tie-ins for the proposed levee will be.

016_Caltrans-7	4. It appears the SR 237 and I-880 existing bridges are at elevations high enough to accommodate future sea level rise and that none of the bridges are in danger of overtopping due to sea level rise. However, Caltrans recommends the DEIR discuss in detail the inequality of water table pressure caused by the proposed project and the possibility for water seepage around the abutments of the nearby bridge structures. Caltrans District 4 Hydraulics Office will also check the roadway profiles along both these facilities to assess the risk of flooding due to future sea level rise. The existing bridges within the project area are: - Alviso Slough/Guadalupe River Bridge, SCL-237, post mile (PM) 6.406, Bridge Number 37-244 R & L with an overtopping flood elevation of 7.42 meters on North American Datum (NAD) 83 vertical datum; - Coyote Creek Bridge, SCL-237, PM 8.72, Bridge Number 37-84 R & L with an overtopping flood elevation of 11.6 meters on NAD83 vertical datum; and - Penitencia Creek Bridge, SCL-880, PM 10.38, Bridge Number 37-0582 R & L with an overtopping flood elevation of 5.2 meters on NAD83 datum.	The proposed project will not induce increases in the water table surface, or induce piezometric head, beyond the immediate footprint of construction. Fill areas to construct project levees and habitat fills will induce localized piezometric heads that will dissipate with time. Dissipation time will vary from very short (~weeks to months) in areas of thin fills or where wick drains are implemented to long (years) in areas of thick (>10 ft) habitat fills. Regardless, these localized piezometric changes will not induce measureable variations in the water table/pressure beyond the footprint of new fills.
016_Caltrans-8	Landscape Architecture 1. Seeding and/or planting is proposed for the bayward side of the Flood Risk Management (FRM) Levee, but not for the landward side. Caltrans recommends that planting on the landward side of the levee, as well as the bayward side, be included as a minimization measure in Section 4.12.2.1. Planting the landward side would also help to ensure that invasive weeds do not establish and proliferate on the levee.	The cited discussion of plantings is a focused discussion on measures to address disturbed areas on the bayward side of the levee/econtone alignment (i.e. destabilized areas beyond the footprint of construction) and not intended to be comprehensive for landscaping on the surfaces of completed project features. The bayward side of the levee/ectotone and landward side of the levee will be hydroseeded with a blend of native upland grasses and the bayward side planted/seeded with native plants respective of environments within and above the tidal range. These areas would not be destabilized.
016_Caltrans-9	Landscape Architecture2. Caltrans recommends the legend for Figure 4.12.2 Photograph of Location Points be modified to include a list of the Alternatives associated with the different levee alignments.	Thank you for your comment. Per your recommendation, the names of the alternatives corresponding to each alignment shown have been added to the legend in Figure 4.12.3 (previously 4.12.2 in draft document).
016_Caltrans-10	Landscape Architecture3. Figure 4.12-7 Simulated View from Location 2 appears to be titled incorrectly; instead, it appears as though the view should be noted the same as Figures 4.12-5 and 4.12-6.	Thank you for alerting us to the incorrect title for Figure 4.12-8 (previously 4.12-7 in draft report). The title has been corrected and now reads: Simulated View from Location 2 - View North from Elizabeth Street and Gold Street of Alviso South Levee Alignment (Alternative 5).
016_Caltrans-11	Landscape Architecture 4. Caltrans recommends that a Visual Impact Assessment be prepared as a Technical Document and included as an appendix to the DEIR.	Aesthetic effects due to the alternatives are analyzed throughout Chapter 4 (4.1.2) in the Integrated Document. There is no need to prepare a separate Visual Impact Plan at this time.
016_Caltrans-12	Transportation Management PlanCaltrans recommends a Transportation Management Plan (TMP) or construction TIS may be required of the developer for approval by Caltrans prior to construction. TMPs must be prepared in accordance with California Manual on Uniform Traffic Control Devices. Further information is available for download at the following web address: htt;://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/Part6.pdf. Please ensure that such plans are also prepared in accordance with the transportation management plan requirements of the corresponding jurisdictions. For further TMP assistance, please contact the Office of Traffic Management Plans at (510) 286-4647.	Thank you for your comment. Appendix A3 (Appendix L in the draft release) includes a preliminary Construction Traffic Access Route Plan that has been developed during this feasibility study stage of the project. A more detailed Transportation Management Plan will be prepared prior to construction and if so, will follow the guidance provided by the CA Manual on Uniform Traffic Control Devices.
016_Caltrans-13	Encroachment Permit: Please be advised that any work or traffic control that encroaches onto the State ROW requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to: David Salladay, District Office Chief, Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See this website for more information: http://www.dot.ca.gov/hq/traffops/developserv/permits.	Thank you for your comment. It is understood that any work or traffic control that could encroach onto the State ROW will require a Caltrans encroachment permit and an application will be submitted, if necessary, following design planning. The traffic-related avoidance and minimization measures from the Integrated Document will be incorporated into the construction plans.

017_SCPR

From: Fourt, Will [mailto:William.Fourt@PRK.SCCGOV.ORG]
Sent: Monday, February 23, 2015 9:11 AM
To: Michael Martin
Cc: Brosseau, Kimberly; Yeung, Ivana
Subject: County Parks comments on South Bay Shoreline Study

Hi Michael
Please see attached comment letter from County Parks regarding the South Bay Shoreline Study Draft Integrated Document.

Thank you
Will

Will Fourt, Park Planner III
Santa Clara County Parks | 298 Garden Hill Drive | Los Gatos, CA 95032
william.fourt@prk.sccgov.org | 408.355.2228 | http://www.parkhere.org

County of Santa Clara
Parks and Recreation Department

298 Garden Hill Drive
Los Gatos, California 95032-7669
(408) 355-2200 FAX 355-2290
Reservations (408) 355-2201
www.parkhere.org

February 23, 2015

Michael Martin
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA

Subject: Notice of availability of Draft Integrated Document

Project Title: Shoreline Phase I Study Draft Integrated Interim Feasibility Study and Environmental Impact Statement/Report

Dear Mr. Martin,

The County of Santa Clara Parks and Recreation Department has reviewed the Draft Environmental Impact Report and Draft Environmental Impact Statement for the Shoreline Phase I Study Draft Integrated Interim Feasibility Study and offers the following comments to be considered:

Section 4.11.1.1.3

In the discussion of the relevant sections of the Santa Clara County General Plan, please add reference to the *Santa Clara County Countywide Trails Master Plan Update* ("Countywide Trails Master Plan"). This document is part of the County General Plan that was adopted by the County of Santa Clara's Board of Supervisors in 1995 and is incorporated as part of the Parks and Recreation Element of the General Plan.

The Countywide Trails Master Plan identifies three regional trail routes in the project area: 1

- The San Francisco Bay Trail (R4)
- The Guadalupe Trail (S3)
- The Coyote Creek Trail (S5)

The proposed continuous Bay Trail alignment included in the project description, from Alviso Marina County Park to Coyote Creek, is consistent with the intent of the Countywide Trails Master Plan.

Thank you for your consideration.

Sincerely,

Will Fourt
Park Planner III

CC: Ivana Yeung, County Roads & Airports Department

ID	Issue Text	Response Text
017_SCPR-1	Section 4.11.1.1.3 In the discussion of the relevant sections of the Santa Clara County General Plan, please add reference to the Santa Clara County Countywide Trails Master Plan Update (“Countywide Trails Master Plan”). This document is part of the County General Plan that was adopted by the County of Santa Clara’s Board of Supervisors in 1995 and is incorporated as part of the Parks and Recreation Element of the General Plan. The Countywide Trails Master Plan identifies three regional trail routes in the project area: • The San Francisco Bay Trail (R4) • The Guadalupe Trail (S3) • The Coyote Creek Trail (S5) The proposed continuous Bay Trail alignment included in the project description, from Alviso Marina County Park to Coyote Creek, is consistent with the intent of the Countywide Trails Master Plan.	The suggested revisions to Section 4.11.1.1.3 have been made and the following paragraph has been added to the discussion of the Santa Clara County General Plan: In addition, the Santa Clara County Countywide Trails Master Plan Update (“Countywide Trails Master Plan”) is also part of the County General Plan and is incorporated as part of the Parks and Recreation Element of the General Plan. The Countywide Trails Master Plan identifies three regional trail routes in the project area: •The San Francisco Bay Trail (R4); • The Guadalupe Trail (S3); • The Coyote Creek Trail (S5).

Edwards, Dawn

From: JLucas1099@aol.com
Sent: Sunday, February 22, 2015 1:35 PM
To: Shoreline Environment SPN
Subject: [EXTERNAL] South San Francisco Bay Shoreline Phase 1 Project - cont. comment (4)

Bill DeJager
US Army Corps of Engineers
1455 Market Street
San Francisco, California 94103

February 22, 2015

RE: South San Francisco Bay Shoreline Phase 1 Project

Dear Bill DeJager,

In substantiation of my three previous comment submittals concerning South San Francisco Bay Shoreline Phase 1 Project, I would appreciate further indulgence in consideration of salient factors in background data.

As evident in South Bay Salt Pond Restoration Project's Figure 3.6-7 of Salt Marsh Harvest Mouse Habitat Capture Locations, and Barriers in Movement, the proposed super levee alignment will eliminate all SMHM refugia and heart of continuity of wildlife corridor (inboard of Pond A 18 and bordering Treatment Plant ponds) that connects New Chicago Marsh SMHM colony to SCVWD Coyote Creek SMHM mitigation area, and to South Bay, eastern shore populations around Newby Island.

Corridor connectivity is imperative for healthy gene pool sustainability of SMHM populations. If COE seeks to comply with NEPA's 'avoidance of impact' criteria then Phase 1 Project's alternatives analysis should include alternative alignment of super levee that would not have a fatal impact on endangered species critical habitat. **1**

Both California Coastal Conservancy and Santa Clara Valley Water District have responsibility to ensure that SMHM critical habitat is not degraded or lost and that integrity of SMHM mitigation acreage is fully retained.

I say 'fatal impact' because do not find that super levee can supply sufficient cover to protect SMHM corridor continuity from predation, or provide refugia in times of high water. Height and bulk of levee will leave it arid and barren in rainless California climate and underlying saltwater is too low to sustain salt marsh vegetation.

As alternatives analysis for super levee alignment do reiterate suggestion of an Alviso to Fremont railroad line super levee, with levee best placed outboard, to west, of rail right of way, and with river tide gates on Coyote Creek and Guadalupe River only to be implemented in high intensity storm events. (similar to River Thames). **2**

Then in earlier submittal I cited example of Napa River COE flood project design that coordinates river storm flows with high Bay levels using 1200 acres of floodplain and marsh plain as storage during a 100 year flood. Napa River peak flood flows on February 18, 1986 were 37,100 cfs (near double previous high of 20,900 cfs), from a 218 square mile watershed.

This flow level could be considered comparable to combined flows from Guadalupe River and Coyote Creek, although their watershed area is greater at 242 square miles and mountains of Hamilton and Umunhum are closer to outfall in San Francisco Bay. However, due to subsidence in San Jose and Alviso area, believe river reflux of Coyote and Guadalupe is greater flood hazard and the larger floodplain and marsh plain is indicated. **3**

The South Bay Salt Ponds inboard of the railroad line located super levee could provide acreage of 1600 acres for sufficient floodplain and marsh plain storage to mute flood flows from high intensity storm systems.

Though earlier 1989 COE shoreline study claimed there was no need to incorporate fluvial considerations into levee design, I would submit that subsequent thirty year interval since design of Coyote and Guadalupe River flood projects, plus at least ten years for implementation of proposed super levee design, in addition to global warming impacts that appear to result in unprecedented weather variability and intense storm systems would dictate otherwise. **4**

Afraid find I must interrupt this transmittal at this time but will continue comments tomorrow. So sorry!
Thank you for your continuing kind considerations of these concerns.

Libby Lucas
174 Yerba Santa Ave.
Los Altos, CA 94022

ID	Issue Text	Response Text
018_Lucas_4-1	As evident in South Bay Salt Pond Restoration Project's Figure 3.6-7 of Salt Marsh Harvest Mouse Habitat Capture Locations, and Barriers in Movement, the proposed super levee alignment will eliminate all SMHM refugia and heart of continuity of wildlife corridor (inboard of Pond A 18 and bordering Treatment Plant ponds) that connects New Chicago Marsh SMHM colony to SCVWD Coyote Creek SMHM mitigation area, and to South Bay, eastern shore populations around Newby Island. Corridor connectivity is imperative for healthy gene pool sustainability of SMHM populations. If COE seeks to comply with NEPA's 'avoidance of impact' criteria then Phase 1 Project's alternatives analysis should include alternative alignment of super levee that would not have a fatal impact on endangered species critical habitat. Both California Coastal Conservancy and Santa Clara Valley Water District have responsibility to ensure that SMHM critical habitat is not degraded or lost and that integrity of SMHM mitigation acreage is fully retained. I say 'fatal impact' because do not find that super levee can supply sufficient cover to protect SMHM corridor continuity from predation, or provide refugia in times of high water. Height and bulk of levee will leave it arid and barren in rainless California climate and underlying saltwater is too low to sustain salt marsh vegetation.	The Shoreline project shares the commenter's concern over impacts to the SMHM. One of the key species to benefit from the construction of ecotone (the project includes broad upland transition zones adjacent to the engineered levee) is the SMHM. The ecotone will provide sufficient cover and habitat to protect the SMHM during high tides and storms and allow for migration along the shoreline. When completed, the Shoreline project will create nearly 3,000 acres of SMHM habitat. These acres, combined with the already-restored Pond A17, will result in a continuous band of salt marsh habitat from Alviso Slough Ponds A9-15 through A17 to Coyote Creek's fringing marshes and Pond A18. The only disruption would be the existing Union Pacific Railroad line. This ultimate vision will provide much greater habitat connectivity, and the construction of the ecotone and the phased approach to restoration will help to minimize the direct effects of the initial restoration actions. In terms of specific connections between the New Chicago Marsh and Coyote Creek mitigation area (Reach 1A) populations, the Preferred Alternative should greatly improve SMHM migration opportunities over existing conditions by restoring large tracts of tidal marsh habitat in Pond A18, lowering levees, and creating ecotone (transition zones).
018_Lucas_4-2	As alternatives analysis for super levee alignment do reiterate suggestion of an Alviso to Fremont railroad line super levee, with levee best placed outboard, to west, of rail right of way, and with river tide gates on Coyote Creek and Guadalupe River only to be implemented in high intensity storm events. (similar to River Thames).	Early in the Shoreline Study planning process, options similar to the commenter's suggestion were considered such as hardening outboard levees and installing tide gates strategic locations to hold back tidal flooding. This would convert the former south bay salt ponds to essentially flood detention basins. Such basins can successfully be managed as either tidal and/or riparian flood flows (depending on how they are designed) and create habitat, but they result in highly-altered environments with the need for intensive, long-term management. Consistent with the vision created by the South Bay Salt Pond Restoration Project and consistent with Corps of Engineers ecosystem restoration policy, the Shoreline Study has tried to incorporate more natural, less managed solutions into the project, as much as possible, in order to reduce environmental impacts, costs, and long-term complications from highly-managed systems. Using the railroad line to create tidal basins would also conflict with the Shoreline Study's identified habitat goals of tidal restoration through an adaptive management process. Tidal basins and tide gates usually preclude full tidal restoration. While these muted tidal systems can provide valuable habitat, they do not have all of the geomorphic and ecological functions that existed historically when the South Bay was dominated by unconstrained tidal marshes. Furthermore, the creation of tidal detention basins would conflict with the habitat goals of the South Bay Salt Pond Restoration Project and other regional plans, such as the Baylands Ecosystem Habitat Goals and the USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California. A central goal of these plans is to create largely unbroken swaths of salt marsh habitat in the far South Bay and reconnect isolated wildlife populations. For these reasons, these types of flood protection solutions were not carried forward for further analysis.
018_Lucas_4-3	Then in earlier submittal I cited example of Napa River COE flood project design that coordinates river storm flows with high Bay levels using 1200 acres of floodplain and marsh plain as storage during a 100 year flood. Napa River peak flood flows on February 18, 1986 were 37,100 cfs (near double previous high of 20,900 cfs), from a 218 square mile watershed. This flow level could be considered comparable to combined flows from Guadalupe River and Coyote Creek, although their watershed area is greater at 242 square miles and mountains of Hamilton and Umunhum are closer to outfall in San Francisco Bay. However, due to subsidence in San Jose and Alviso area, believe river reflux of Coyote and Guadalupe is greater flood hazard and the larger floodplain and marsh plain is indicated. The South Bay Salt Ponds inboard of the railroad line located super levee could provide acreage of 1600 acres for sufficient floodplain and marsh plain storage to mute flood flows from high intensity storm systems.	The effects of riverine flows on the tidally-dominated South San Francisco Bay shoreline were evaluated. Additionally, the effects of the proposed coastal flood protection levee on riverine hydraulics were quantified. The extents of the tidal influence along the streams are limited to the lower reaches. The extent of the tidal influence is dependent on the relative magnitudes of the flows in the streams and the tide itself. Frequent, low magnitude flows are much more greatly influenced by tides than less frequent, large magnitude events like the 1% annual chance exceedance (100-year) event. For example, water surface elevations in the Guadalupe River during a 1% event will be the same upstream of Highway 237, 1000 feet from the bay, if the tide elevation is 2 ft as they would be if the tide were to be 11 ft. On the other hand, water surface elevations during a 50% annual chance exceedance (2-year) event will measurably higher (greater than 0.1 ft) as far upstream as Trimble Road (about 4 miles) over the same range of tidal conditions.
018_Lucas_4-4	Though earlier 1989 COE shoreline study claimed there was no need to incorporate fluvial considerations into levee design, I would submit that subsequent thirty year interval since design of Coyote and Guadalupe River flood projects, plus at least ten years for implementation of proposed super levee design, in addition to global warming impacts that appear to result in unprecedented weather variability and intense storm systems would dictate otherwise.	Fluvial Flood Frequency statistics and hydraulic analysis was updated for the current study from the 1989 study, and the current design level is adequate to analyze the potential impacts of the project. The proposed tidal levee ties into the riverine levees at elevation 16 feet NAVD88, creating a closed system which provided flood risk reduction from both fluvial and tidal flood, including coincident events.

019_PGE

From: Jacobs, Lynn <LLJ0@pge.com>
Sent: Monday, February 23, 2015 2:57 PM
To: Shoreline Environment SPN
Subject: [EXTERNAL] PG&E's Comments on the South San Francisco Bay Shoreline Study Phase 1 Project Draft Interim Feasibility Study and Draft Environmental Impact Statement/Environmental Impact Report
Attachments: Comments_SCC_Shoreline_Study(2).pdf

To whom it may concern,

Please find attached PG&E's comments on the South San Francisco Bay Shoreline Study Phase 1 Project Draft Interim Feasibility Study and Draft Environmental Impact Statement/Environmental Impact Report.

Thank you
Lynn Jacobs on behalf of Diane Ross-Leech

"Our lives begin to end the day we become silent about things that matter."

L. Lynn Jacobs (Jihad)
Environmental Policy – Diane Ross-Leech
77 Beale Street - B28P
San Francisco, CA 94105
415 973 4453

Pacific Gas and Electric Company

Diane Ross-Leech
Director
Environmental Policy

77 Beale Street – B28P
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Email: DPR5@pge.com

February 23, 2015

VIA E-MAIL

Thomas R. Kendall
Chief, Planning Branch
Engineering and Technical Services Division
U.S. Army Corps of Engineers San Francisco District
1455 Market St. San Francisco, CA 94103
ATTN: William DeJager

Re: PG&E's Comments on the South San Francisco Bay Shoreline Study Phase 1 Project Draft Interim Feasibility Study and Draft Environmental Impact Statement/Environmental Impact Report

Dear Mr. Kendall,

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the South San Francisco Bay Shoreline Study Phase 1 Project Draft Interim Feasibility Study and Draft Environmental Impact Statement/Environmental Impact Report (Report). We commend the joint efforts of the U.S. Army Corps of Engineers, Santa Clara Valley Water District, and State Coastal Conservancy to identify and recommend flood protection and ecosystem restoration projects in the South San Francisco Bay. PG&E supports consideration of projects that will reduce flood risk, restore ecosystems, and provide benefits to the public. However, PG&E wants to ensure all impacts to existing infrastructure, continued operation, maintenance and access are adequately addressed within all proposed projects and activities.

I. INTRODUCTION

PG&E provides gas and electric service to millions of Californians from a reliable and sustainable energy portfolio. PG&E's portfolio is composed of a diverse mix of technologies including renewable energy and other non-greenhouse gas (GHG) emitting resources. PG&E is actively managing its impact on the environment and works constructively to advance policies that put our state and the country on a cost-effective path toward a low-carbon economy. Climate change adaptation, in particular sea level rise, is an emerging issue that has elicited much engagement from agencies at the federal, state, and local levels. PG&E recognizes the importance of this issue and is supporting local and regional climate adaptation planning efforts, including the San Mateo County Shoreline Vulnerability Assessment and the Silicon Valley 2.0 Climate Adaptation initiative as well as many other efforts. In support of these efforts, PG&E created a cross-departmental climate change operational impact team to understand how PG&E assets and infrastructure may be impacted by future conditions and to facilitate development of appropriate adaptation strategies based on risk.

II. REPORT COMMENTS

Section 4.16 Public Utilities and Service Systems (4-585)
This section lists anticipated project impacts to a variety of utilities including electric. Covered impacts include utility integrity and relocation, electric line clearances, maintenance access, and customer outages. 1 PG&E's ability to effectively mitigate impacts will depend on both financial resources as well as an expeditious permit process to ensure timely utility relocation and decommissioning in the project area.

Table S-8 - Final Array of Alternatives: Features and Costs (S-39)
Cost of electric utility relocation is estimated in Table S-8 - Final Array of Alternatives: Features and Costs with utility relocations listed in alternatives 2 thru 5 at $397,000. This figure appears to be too low and needs to be verified 2

Section 4.16.1.2.2 Utilities (4-589)
PG&E transmission utilities are mentioned. There is no discussion about possible electric distribution utilities, electric substations, or gas transmission and distribution lines. Presence of these utilities in the project area should be verified and if impacts are anticipated, strategies to mitigate those impacts need to be addressed. 3

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Section 4.16.2.2 Methodology for Impact Analysis and Significance Thresholds (4-596)
Relative to the citations below, long-term project impacts resulting in utility access restrictions (such as seasonal limitations, equipment limitations) need to be better understood and clarified. PG&E has valid rights of way and easements that allow us to access our facilities for the safe and reliable operation and serve our customers. Any changes to our access need to involve further discussions with PG&E representatives.

> Detail under Impact UTL-4 states, "When power transmission line maintenance or repair is required, the PG&E overhead lines and towers that are located in Pond A18 and across Artesian Slough are accessed using heavy equipment along or near the existing pond berms. Restoration of tidal habitat in Pond A18 could affect access to the lines and towers due to physical and biological changes in the restored area. Although heavy equipment access points would be largely unaffected, access to interior locations would be reduced by tidal inundation and might require alternative methods to reach the lines and towers. Where the method of access is adversely affected by breached ponds, alternative equivalent access would be provided by the project proponents as part of the project."
>
> "In addition to these physical changes, restoration of salt marsh in Pond A18 would reduce access to PG&E towers if maintenance activities would have the potential to result in disturbance, injury, or mortality of Endangered or Threatened wildlife species. Alternate access by PG&E to accommodate maintenance activities could include helicopter access to perform insulator washing; boat and foot patrols to manage problems associated with bird roosting and nesting materials; repairs due to bird electrocutions or collisions; and urgent foundation and structural repairs due to changing tidal flows. The presence of Threatened or Endangered species would restrict access during certain periods or require alternative methods of access, but the City of San José, which owns Pond A18, would continue to allow access for emergency repairs." 4

Habitat Conservation Plan (4-596)
On page 4-596, the Report includes as mitigation a Habitat Conservation Plan (HCP) that PG&E is developing, subject to approval by U.S. Fish and Wildlife Service (USFWS), for operation and maintenance activities within the nine Bay Area counties. This is not proper mitigation for Project impacts. First, PG&E is not a Project proponent- mitigation must be imposed on the Project proponents to mitigate the impacts of the Project they are proposing. Second, the HCP in question has not been 5

completed, and no permit decisions have been made by USFWS. There is no certainty regarding when - or if - that document will be approved. Finally, the HCP is intended to address routine maintenance and repair work under existing conditions, not under the major physical changes that will be caused by the study's implementation.

For purposes of this DEIS/EIR, we must set aside the issue over who will pay the costs of repairing and protecting these electrical facilities and access-ways. Regardless of who will pay these costs, we need an adequate DEIS/EIR that fully analyzes all foreseeable impacts of the project now - and mitigates them now to the fullest extent feasible - to prevent the need for costly subsequent environmental reviews that will otherwise be necessary. PG&E anticipates that it will need to modify and strengthen tower foundations to protect against rising water levels, raise conductors to maintain safe ground clearances, rebuild boardwalks, and even relocate facilities within the ponds to allow access. Permits will be required for this initial work, as well as additional permits to perform future maintenance in newly-created sensitive species habitats.

The EIS/EIR for this Project should provide the environmental review for these directly foreseeable actions so that the cost of piecemeal future reviews and associated delays are avoided. To that end, not only should the DEIS/EIR adequately address the direct and indirect Project impacts to PG&E's transmission facilities and ensure that the existing access is preserved, but the lead agencies should also agree on a permitting strategy for the foreseeable maintenance and repair work that will be necessary going forward, including the issuance of incidental take permits for state and federally listed species. PG&E is not a Project proponent, yet the vaguely defined "mitigation" cited by the DEIS/EIR to reduce impacts on electrical facilities is not imposed on Project proponents, but on PG&E- a third party impacted by the Project. The EIS/EIR then relies on PG&E's future "mitigation" to reduce impacts to less than significant levels. Neither the California Environmental Quality Act (CEQA) nor the National Environmental Protection Act (NEPA) permit lead agencies to impose mitigation on third parties or assess impacts in this way.

6

Ongoing Impacts

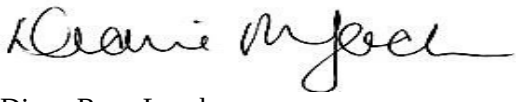
Ongoing impacts to utilities should also be considered after project completion. For example, adding habitat or transitional habitat could impact utility access which will require new permitting or agency notifications. The project should address this need through simplified programmatic approaches that allow utility operation maintenance, inspection, and repairs to be conducted efficiently and expeditiously.

7

III. CONCLUSION

PG&E greatly appreciates your consideration of our comments. We are interested in ensuring the work of the Study is done in unison with PG&E's facility operation maintenance and access needs. PG&E reiterates support of the Study and looks forward to early and continued engagement during the Study's ongoing process. Please feel free to contact me at 415-973-5696 or by e-mail at DPR5@pge.com to discuss any questions you have related to our recommendations proposed for your consideration herein this letter.

Respectfully submitted,



Diane Ross-Leech
Director, Environmental Policy - Safety, Health and Environment
Pacific Gas and Electric Company

ID	Issue Text	Response Text
019_PGE-1	Section 4.16 Public Utilities and Service Systems (4-585)This section lists anticipated project impacts to a variety of utilities including electric. Covered impacts include utility integrity and relocation, electric line clearances, maintenance access, and customer outages.PG&E's ability to effectively mitigate impacts will depend on both financial resources as well as an expeditious permit process to ensure timely utility relocation and decommissioning in the project area.	Your comment is acknowledged.
019_PGE-2	Cost of electric utility relocation is estimated in Table S-8 - Final Array of Alternatives: Features and Costs with utility relocations listed in alternatives 2 thru 5 at $397,000. This figure appears to be too low and needs to be verified.	Costs were determined during the early design estimates and verified during more recent costing reviews. If, during final design, it is determined that alternative work may be required, these costs will be reviewed and updated by the USACE.
019_PGE-3	Section 4.16.1.2.2 Utilities (4-589)PG&E transmission utilities are mentioned. There is no discussion about possible electric distribution utilities, electric substations, or gas transmission and distribution lines. Presence of these utilities in the project area should be verified and if impacts are anticipated, strategies to mitigate those impacts need to be addressed.	A search of the study area for utility features with the potential for impact was made early in the planning process by using the following resources: the Water Pollution Control Plant GIS database from City of San Jose; the City of San Jose Utility database (https://cpms.sanjoseca.gov/emap/); and available aerial and street level photography used to identify approximate locations of utilities not identified by either of the first two databases. No distribution utilities, electric substations, or gas transmission/distribution lines were identified during the record search.
019_PGE-4	Section 4.16.2.2 Methodology for Impact Analysis and Significance Thresholds (4-596) Relative to the citations below, long-term project impacts resulting in utility access restrictions (such as seasonal limitations, equipment limitations) need to be better understood and clarified. PG&E has valid rights of way and easements that allow us to access our facilities for the safe and reliable operation and serve our customers. Any changes to our access need to involve further discussions with PG&E representatives. Detail under Impact UTL-4 states, "When power transmission line maintenance or repair is required, the PG&E overhead lines and towers that are located in Pond A18 and across Artesian Slough are accessed using heavy equipment along or near the existing pond berms. Restoration of tidal habitat in Pond A18 could affect access to the lines and towers due to physical and biological changes in the restored area. Although heavy equipment access points would be largely unaffected, access to interior locations would be reduced by tidal inundation and might require alternative methods to reach the lines and towers. Where the method of access is adversely affected by breached ponds, alternative equivalent access would be provided by the project proponents as part of the project." "In addition to these physical changes, restoration of salt marsh in Pond A18 would reduce access to PG&E towers if maintenance activities would have the potential to result in disturbance, injury, or mortality of Endangered or Threatened wildlife species. Alternate access by PG&E to accommodate maintenance activities could include helicopter access to perform insulator washing; boat and foot patrols to manage problems associated with bird roosting and nesting materials; repairs due to bird electrocutions or collisions; and urgent foundation and structural repairs due to changing tidal flows. The presence of Threatened or Endangered species would restrict access during certain periods or require alternative methods of access, but the City of San José, which owns Pond A18, would continue to allow access for emergency repairs."	The Shoreline team will continue to work with PG&E to clarify the project and its impacts to PG&E's access to facilities in the project area. The analysis for UTL-4 has been updated to more accurately describe the potential impacts of the project.
019_PGE-5	Habitat Conservation Plan (4-596)On page 4-596, the Report includes as mitigation a Habitat Conservation Plan (HCP) that PG&E is developing, subject to approval by U.S. Fish and Wildlife Service (USFWS), for operation and maintenance activities within the nine Bay Area counties. This is not proper mitigation for Project impacts. First, PG&E is not a Project proponent- mitigation must be imposed on the Project proponents to mitigate the impacts of the Project they are proposing. Second, the HCP in question has not been completed, and no permit decisions have been made by USFWS. There is no certainty regarding when -or if - that document will be approved. Finally, the HCP is intended to address routine maintenance and repair work under existing conditions, not under the major physical changes that will be caused by the study's implementation.	The suggested revision to Section 4.16.2.3.2 has been made. Discussion of a potential PG&E Habitat Conservation Plan (HCP) with USFWS as relates to the project area has been removed from the impacts assessment text.

019_PGE-6	For purposes of this DEIS/EIR, we must set aside the issue over who will pay the costs of repairing and protecting these electrical facilities and access-ways. Regardless of who will pay these costs, we need an adequate DEIS/EIR that fully analyzes all foreseeable impacts of the project now - and mitigates them now to the fullest extent feasible - to prevent the need for costly subsequent environmental reviews that will otherwise be necessary. PG&E anticipates that it will need to modify and strengthen tower foundations to protect against rising water levels, raise conductors to maintain safe ground clearances, rebuild boardwalks, and even relocate facilities within the ponds to allow access. Permits will be required for this initial work, as well as additional permits to perform future maintenance in newly-created sensitive species habitats. The EIS/EIR for this Project should provide the environmental review for these directly foreseeable actions so that the cost of piecemeal future reviews and associated delays are avoided. To that end, not only should the DEIS/EIR adequately address the direct and indirect Project impacts to PG&E's transmission facilities and ensure that the existing access is preserved, but the lead agencies should also agree on a permitting strategy for the foreseeable maintenance and repair work that will be necessary going forward, including the issuance of incidental take permits for state and federally listed species. PG&E is not a Project proponent, yet the vaguely defined "mitigation" cited by the DEIS/EIR to reduce impacts on electrical facilities is not imposed on Project proponents, but on PG&E- a third party impacted by the Project. The EIS/EIR then relies on PG&E's future “mitigation" to reduce impacts to less than significant levels. Neither the California Environmental Quality Act (CEQA) nor the National Environmental Protection Act (NEPA) permit lead agencies to impose mitigation on third parties or assess impacts in this way.	The Draft EIS/EIR noted that the proposed project would result in physical changes to Pond A18 that would reduce access to PG&E towers and that where the method of access is adversely affected by breached ponds, alternative equivalent access would be provided as part of the project. The project description has been modified to clarify the specific upgrades to PG&E infrastructure that would be required as a result of project-related tidal inundation and restoration activities, as well as the operations and maintenance activity associated with PG&E’s lines and towers that would take place in and around Pond A18. The discussion in Impact UTL-4 has been revised to clarify that the project proponents will coordinate with PG&E to obtain all necessary permits for the identified improvements as well as for PG&E’s ongoing operations and maintenance activities, to ensure that impacts to utility access as well as to biological resources remain less than significant. Consistent with this coordination, these improvements to PG&E facilities will be included in all permits required for the project, including the Regional Water Quality Control Board, Bay Development and Conservation Commission, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife. The project proponents will coordinate with the U.S. Fish and Wildlife Service to ensure that regular PG&E maintenance activities are addressed in the Biological Opinion for the project. The project proponents understand that this strategy was utilized in the Biological Opinion for the SBSP Restoration Project.
019_PGE-7	Ongoing Impacts Ongoing impacts to utilities should also be considered after project completion. For example, adding habitat or transitional habitat could impact utility access which will require new permitting or agency notifications. The project should address this need through simplified programmatic approaches that allow utility operation maintenance, inspection, and repairs to be conducted efficiently and expeditiously.	As noted in Response #6, the project proponents will continue to work with PG&E to assess potential impacts to PG&E facilities and operations. Future maintenance may be restricted based on breeding seasons of sensitive species. The project proponents will work with PG&E and the U.S. Fish and Wildlife Service to minimize these restrictions through the inclusion of regular PG&E maintenance in the project area as part of the Biological Opinion for the project.

From: Molseed, Roy <Roy.Molseed@VTA.ORG>
Sent: Monday, February 23, 2015 3:57 PM
To: Shoreline Environment SPN
Subject: [EXTERNAL] South San Francisco Bay Shoreline Phase 1 Project

Bill,

VTA has no comments on the above project. Thanks. 1

Roy Molseed
VTA
(408) 321-5784

ID	Issue Text	Response Text
020_VTA	VTA has no comments on the above project. Thanks.	Your comment is acknowledged; we understand that no revision to the text is requested in this general comment.

From: Eileen McLaughlin <wildlifestewards@aol.com>
Sent: Monday, February 23, 2015 3:57 PM
To: Czekanski, Adam J MAJ SPN
Cc: Shoreline Environment SPN; ian@baykeeper.org; alice@greenfoothills.org; ldrruff@hotmail.com; shani@scvas.org; michaeljferreira@gmail.com
Subject: [EXTERNAL] Comments, Shoreline Phase 1 Study
Attachments: Joint Enviro Grp Comments-Shoreline Phase I Study 022315-ltr.pdf

Dear Major Czekanski,

The attached letter is submitted for your consideration as regards the Shoreline Phase I Study.

Submitted to you jointly by:

San Francisco Baykeeper
Citizens Committee to Complete the Refuge
Committee for Green Foothills
California Native Plant Society, Santa Clara County Chapter
Santa Clara Valley Audubon Society
Sierra Club Loma Prieta Chapter

For all of the groups co-signed,

Eileen McLaughlin
Citizens Committee to Complete the Refuge

February 23, 2015

Major Adam Czekanski
US Army Corps of Engineers, San Francisco Office
1455 Market Street
San Francisco, CA 94103

Via electronic mail to Adam.J.Czekanski@usace.army.mil

RE: Comments on Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report for the South San Francisco Bay Shoreline Phase I Study, Santa Clara County, CA

Dear Major Czekanski:

San Francisco Baykeeper, the Citizens Committee to Complete the Refuge, the Committee for Green Foothills, the Santa Clara County Chapter of the California Native Plant Society, the Loma Prieta Chapter of the Sierra Club and the Santa Clara Valley Audubon Society appreciate the opportunity to comment on the Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report for the South San Francisco Bay Shoreline Phase I Study, Santa Clara County, CA (Integrated Document). We recognize the substantial amount of outreach and analysis conducted by the US Army Corp of Engineers with the Santa Clara Valley Water District and the California State Coastal Conservancy to develop the Integrated Document and understand the significant consequences of the project, in terms of flood protection, sea level rise adaptation, and habitat conservation.

We wish to draw your attention to one particular omission and to echo elected officials who request changes in the Integrated Document consistent with San José plans for options that can enhance connectivity between San Francisco Bay and the watersheds of Coyote Creek and Lower Penitencia Creek.

Coyote Creek, home to the federally threatened Central California Coast Steelhead and Fall-Run Chinook Salmon, is one of the most significant waterways in Santa Clara Valley. Restoration of this creek is the subject of multiple on-going planning processes, including the Fish and Aquatic Habitat Collaborative Effort (FAHCE) Program and Fish Habitat Restoration Plan, and the Three Creeks Habitat Conservation Plan (HCP). Restoration activities affecting Coyote Creek were also contemplated in the Santa Clara/San José Regional Wastewater Facility's Master Plan (RWF MP), adopted by the City Council in 2013. Levee alignment alternatives currently presented in the Integrated Document constrain restoration options near the mouth of Coyote Creek and Lower Penitencia Creek, and reduce options available for multi-benefit fluvial flood mitigation and habitat enhancement efforts.

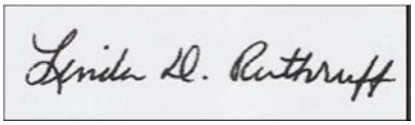
The RWF MP identified a conceptual alternative levee alignment, a diagram of which is attached herein. We request formal analysis of this concept in subsequent revisions to the Integrated Document, to preserve and enhance restoration and flood control options throughout the Coyote and Lower Penitencia Creek catchment areas. This alignment remains consistent with proposed restoration of Pond A18, in conjunction with the South Bay Salt Pond Restoration Project. We share the vision of local and regional decision makers that if the eastern-most section of the levee can be left for further consideration, restoration could one day connect Bay marshes and riparian habitats, enriching throughout that reach to achieve water quality, habitat and flood control benefits. 1

Sincerely,

Ian Wren
Staff Scientist
San Francisco Baykeeper

Eileen McLaughlin
Board Member, Citizens Committee to Complete the Refuge

Alice Kaufman
Legislative Advocate
Committee for Green Foothills



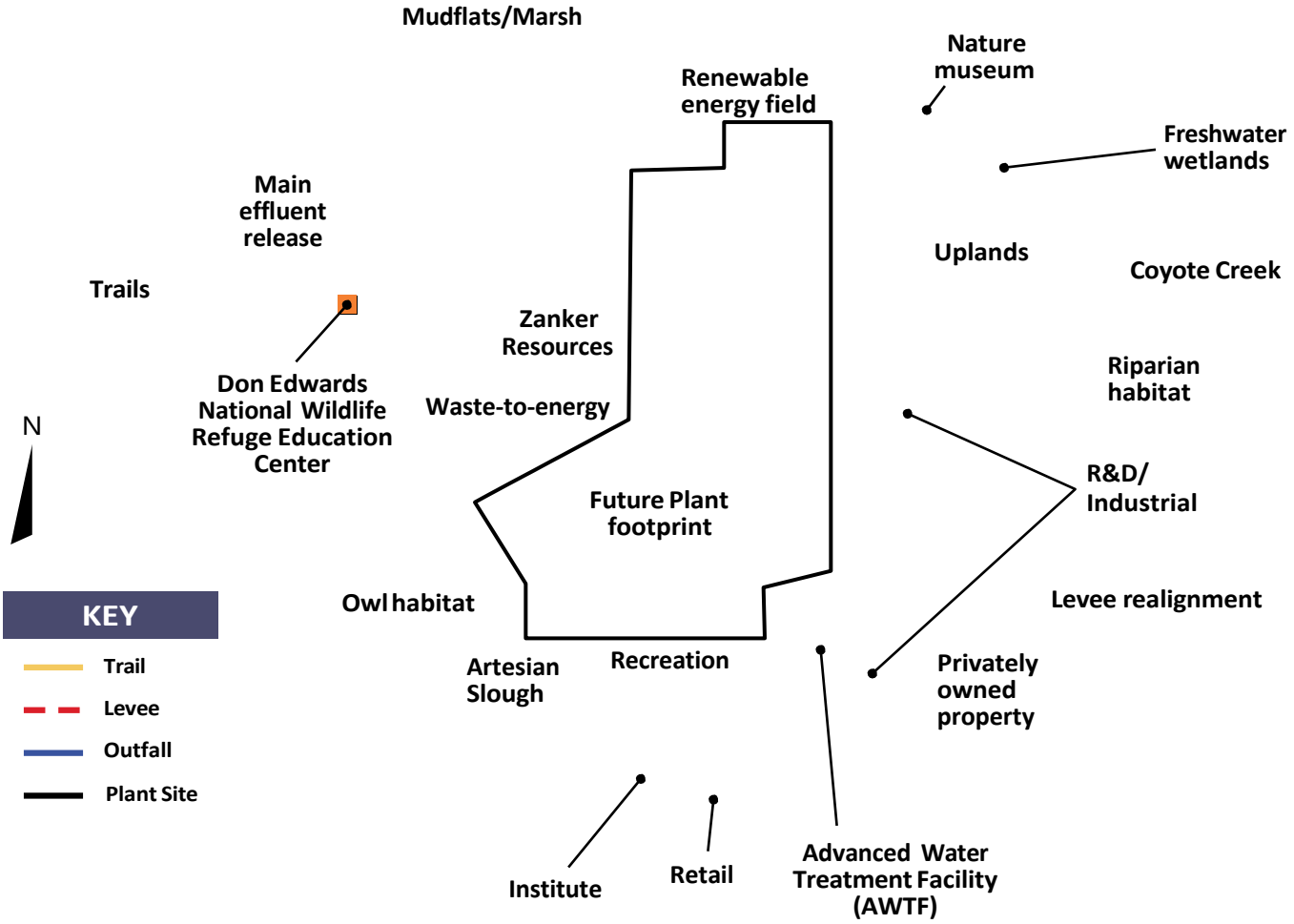
Linda D. Ruthruff
Conservation Chair,
California Native Plant Society,
Santa Clara County Chapter

Shani Kleinhaus, Ph.D
Environmental Advocate
Santa Clara Valley Audubon Society

Michael Ferreira
Executive Committee Member
Sierra Club Loma Prieta Chapter

Draft Recommended Alternative

Plant Master Plan



Draft Recommended Alternative

Plant Master Plan

Main Features

- Development area is located along Highway 237
- Shoreline levee is placed closest to the Plant operations with salt marsh and mudflats on the Bay side to provide flood protection
- Park with sports fields and connection to Artesian Slough and retail areas
- An institute is visible from Highway 237 and connected to recreation, habitat, and retail areas

Economic Benefit

- Lease revenue could be used to defray Plant operational costs (subject to city council approval)
- Estimated jobs potential: 17,800

Phasing

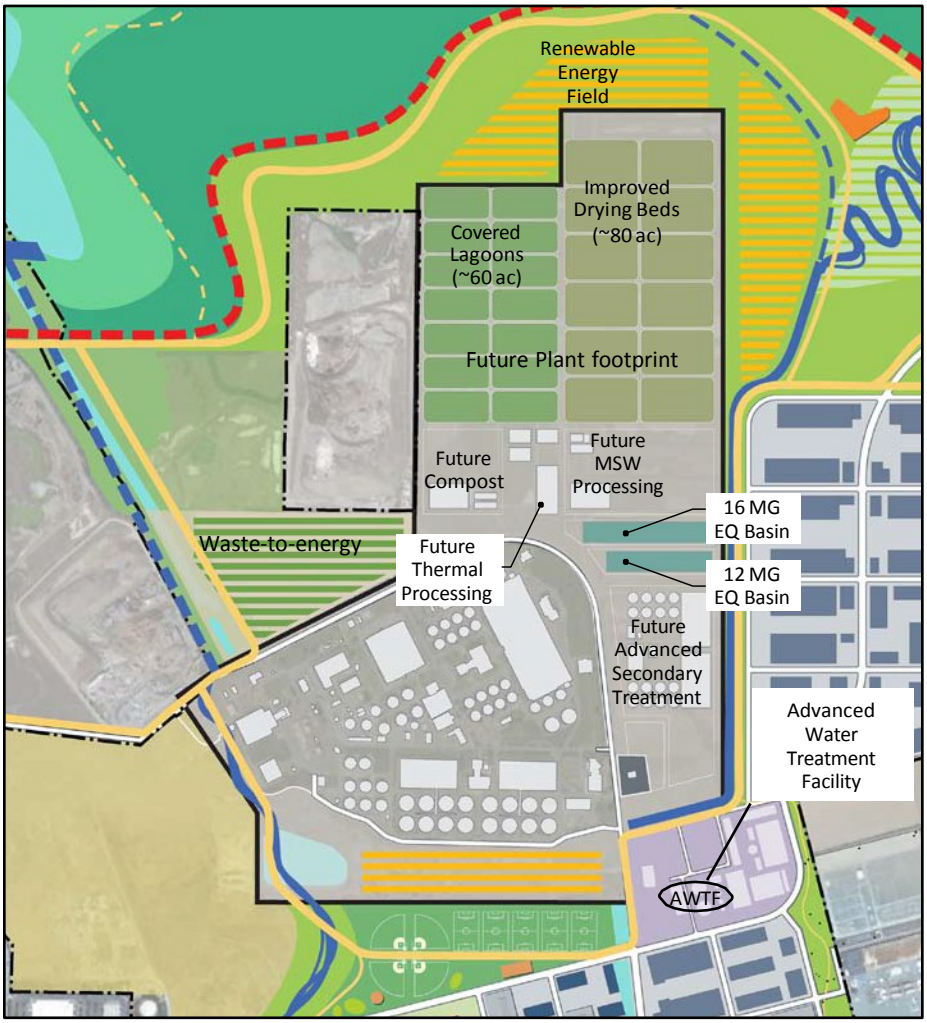
- The alternative is contingent upon implementing odor control measures and relocating the biosolids processing area
- An odor study will identify which lands can be developed with current odor controls, which lands are suitable for uses that are not odor-sensitive (e.g., solar fields), and which lands require additional odor controls prior to development

Funding

- Sanitary sewer rate fees only support Plant projects and will not be used to fund other uses
- Costs for the operational improvements have been identified and the Plant's co-owners and tributary agencies are evaluating financing options

Land Uses	Proposed Area
Future Plant footprint (AWTF, waste-to-energy, main effluent release, and biosolids processing area)	600 acres (currently 1,130 acres)
Advanced water treatment facility (AWTF)	31 acres
Freshwater wetlands	60 acres
Institute	45 acres
Main effluent release	75 acres
Mudflats/Marsh (includes current Pond A18)	920 acres
Nature museum	2 acres
Owl habitat	190 acres
R&D/Industrial	220-235 acres
Recreation	40 acres
Renewable energy field	60 acres
Retail	20-35 acres
Riparian habitat	188 acres
Trails	16 miles
Uplands	160 acres
Waste-to-energy	40 acres

Operational Land Uses

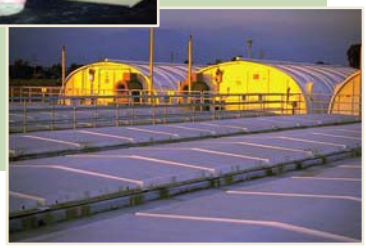


LIQUIDS

- Primary sedimentation basins will be upgraded for reliability.
- Activated biosolids aeration basins will be modified to help meet future regulations.
- Filtration and disinfection processes will be modernized and expanded to increase the treated effluent that can be reused for beneficial purposes.

Recycled water

UV disinfection



Covered tanks

SOLIDS

- Improvements to the anaerobic digesters will increase the efficiency of the digestion process.
- Options for biosolids dewatering and drying are being considered, potentially freeing up hundreds of acres of land for other uses.

Greenhouses

Mechanical dewatering

Solar panels

Fuel cell

ENERGY

- Technologies such as fuel cells and gas turbines will be introduced to better use the methane gas produced as part of the anaerobic digestion process.
- Renewable energy technologies, such as solar panels, will be used to further reduce the Plant's demand for electricity produced off site.

Plant Master Plan

ID	Issue Text	Response Text
021_CCCR.etal_2-1	The RWF MP identified a conceptual alternative levee alignment, a diagram of which is attached herein. We request formal analysis of this concept in subsequent revisions to the Integrated Document, to preserve and enhance restoration and flood control options throughout the Coyote and Lower Penitencia Creek catchment areas. This alignment remains consistent with proposed restoration of Pond A18, in conjunction with the South Bay Salt Pond Restoration Project. We share the vision of local and regional decision makers that if the eastern-most section of the levee can be left for further consideration, restoration could one day connect Bay marshes and riparian habitats, enriching throughout that reach to achieve water quality, habitat and flood control benefits.	See Master Response regarding Coyote Creek Levee Alignment

From: shani kleinhaus <shani@scvas.org>
Sent: Monday, February 23, 2015 4:04 PM
To: Czekanski, Adam J MAJ SPN
Cc: Shoreline Environment SPN
Subject: [EXTERNAL] SCVAS comments: Shoreline Draft EIR/S
Attachments: 150223_SCVAS_Shoreline Levee.pdf

FYI

Begin forwarded message:

From: shani kleinhaus <shani@scvas.org>
Subject: Shoreline EIR/S
Date: February 23, 2015 at 1:12:56 PM PST
To: "Buxton, Brenda@SCC" <Brenda.Buxton@scc.ca.gov>, Michael Martin <MichaelMartin@valleywater.org>, "DeJager, William R SPN" <William.R.DeJager@usace.army.mil>
Cc: jlabozetta@scvas.org

Good Day,

Santa Clara Valley Audubon Society (SCVAS) is pleased to submit comments on the Draft Interim Feasibility Report and Environment Impact Statement (EIS)/ Report (EIR), South San Francisco Bay Shoreline Phase I Study Santa Clara County, CA. Please see our letter attached

Thank you,
Shani Kleinhaus, Ph.D.

Environmental Advocate
Santa Clara Valley Audubon Society
22221 McClellan Rd. Cupertino 95014
Tel. (650) 868 2114
shani@scvas.org

Santa Clara Valley
Audubon Society

February 23rd, 2015

To:

Commander John C. Morrow
U.S. Army Corps of Engineers San Francisco District
1455 Market St.
San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

Brenda Buxton
California Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, California 94612
Brenda.Buxton@scc.ca.gov

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 94118-3686
MichaelMartin@valleywater.org

via email

Re: Draft Interim Feasibility Report and Environment Impact Statement (EIS)/ Report (EIR), South San Francisco Bay Shoreline Phase I Study Santa Clara County, CA

Representing over 3000 Audubon members in the region, Santa Clara Valley Audubon Society (SCVAS) aims to preserve, to enjoy, to restore and to foster public awareness of native birds and their ecosystems, mainly in Santa Clara County. We are interested in the Shoreline levee since it is expected to impact to birds and their habitat along the South Bay's Salt Ponds, marshes and estuaries. We submits the following comments on the Draft Interim Feasibility Report and Environment Impact Statement (EIS)/ Report (EIR), South San Francisco Bay Shoreline Phase I Study project (Project).

1. Please provide information on any rodent management activities if any such activities will be required on the Shoreline Levee. We are interested because California Ground Squirrels are a keystone species of the Bay upland / transition zone habitat (and needed to provide burrows for burrowing owls, a California Species of Special Concern), and other rodents are at the base of the food chain for many raptors. Whether or not burrowing animals will be allowed on the

1

22221 McClellan Road, Cupertino, CA 95014 Phone: (408) 252-3748 * Fax: (408) 252-2850
email: scvas@scvas.org * www.scvas.org

Ecotone Levee is thus critical to the success of this levee in supporting habitat for birds. Please provide a discussion and provide information on whether or not rodent management will be implemented to eradicate from the levee's transition zone. If Management is expected, please provide details on methodology, and please specify that no rodenticides of any type will be permitted. If use of rodenticides is considered an option, please analyze potential impacts to local wildlife and bird species, including the salt-marsh harvest mouse. 1

2. Please provide additional information on the expected impacts to shorebirds at New Chicago Marsh, in reference to a apparent decline in shorebird populations and available shorebird habitat in the South Bay (http://data.prbo.org/sfstateofthebirds/index.php?page=habitats-tidal-flats). 2

3. Alignment of the Levee at the mouth of Coyote Creek / pond 18 is inconsistent with the alignment selected by City of San Jose's Plant Master Plan (http://www.sanjoseca.gov/DocumentCenter/View/38425). The Project alignment has the potential to preclude future improvements and resilient fluvial flood management and habitat improvements. 3

4. The analysis of the impacts of the flow control structure across Artesian Slough is inadequate. Multiple environmental impacts can be expected, including but not limited to: a) isolating part of the slough; b) placing a levee between the existing mitigation wetlands to the east of Outfall Road and a restored A18; and c) potentially affecting the San Jose Santa Clara Regional Wastewater Facility plant discharge. It is not clear how the proposed structure would function, and whether tidal flows still be allowed in the part of the slough that is being separated from the Bay so as to not impact the slough's habitat. Furthermore, will tidal amplitudes be damped on the interior side of the structure resulting in loss of tidal marsh vegetation? Is there a possibility of fish entrapment (salmonids have been seen in Artesian Slough)?
The exact location and function of the structure should be disclosed and justified, alternative locations should be evaluated, and full analysis and evaluation of impacts is needed. 4

Thank you,

Shani Kleinhaus, Ph.D.
Environmental Advocate

22221 McClellan Road, Cupertino, CA 95014 Phone: (408) 252-3748 * Fax: (408) 252-2850
email: scvas@scvas.org * www.scvas.org

ID	Issue Text	Response Text
022_SCVAS_2-1	1. Please provide information on any rodent management activities if any such activities will be required on the Shoreline Levee. We are interested because California Ground Squirrels are a keystone species of the Bay upland / transition zone habitat (and needed to provide burrows for burrowing owls, a California Species of Special Concern), and other rodents are at the base of the food chain for many raptors. Whether or not burrowing animals will be allowed on the Ecotone Levee is thus critical to the success of this levee in supporting habitat for birds. Please provide a discussion and provide information on whether or not rodent management will be implemented to eradicate from the levee's transition zone. If Management is expected, please provide details on methodology, and please specify that no rodenticides of any type will be permitted. If use of rodenticides is considered an option, please analyze potential impacts to local wildlife and bird species, including the salt-marsh harvest mouse.	Rodent abatement is envisioned to be limited to the footprint of the levee prism and not exceed significantly (no more than 35 feet) onto the ecotone. This would presumably impact the ecotone between approximately elevation 14.5 and 15.5. ft NAVD88. A final decision has not been developed for rodent abatement; this will be addressed during the detailed design process . Leading strategies discussed have been bait and trap, and buried stone in the face of the levee slope to prevent substantial burrowing. Poison bait stations are not considered a viable alternative due to risk to other wildlife.
022_SCVAS_2-2	2. Please provide additional information on the expected impacts to shorebirds at New Chicago Marsh, in reference to a apparent decline in shorebird populations and available shorebird habitat in the South Bay (http://data.prbo.org/sfstateofthebirds/index.php?page=habitats-tidal-flats).	Monitoring of bird use of New Chicago Marsh is ongoing as part of the SBSP Restoration Project. The Shoreline Project will restore only Ponds A12 and A18 to tidal wetlands in the first phase of the Shoreline Study. The conversion of subsequent ponds will be contingent upon the Shoreline Study Monitoring and Adaptive Management Plan, as well as the SBSP Restoration Project Adaptive Management Plan, to ensure adequate regional habitat for shorebirds exists before proceeding with additional breaching. Ponds A9-11 are scheduled five years after the initial phase, and Ponds A13-15 five years after that. These future actions will be guided by the monitoring data collected to limit adverse impacts to shorebird roosting.
022_SCVAS_2-3	3. Alignment of the Levee at the mouth of Coyote Creek / pond 18 is inconsistent with the alignment selected by City of San Jose's Plant Master Plan (http://www.sanjoseca.gov/DocumentCenter/View/38425). The Project alignment has the potential to preclude future improvements and resilient fluvial flood management and habitat improvements.	In the final adopted version of the San Jose/Santa Clara Water Pollution Control Plant's Plant Master Plan (PMP, November 2013), the City did not adopt a specific levee alignment. Rather, the Plan outlines a vision of flood protection and restoration to be implemented in partnership with other agencies. The PMP can be found here: http://www.sanjoseca.gov/DocumentCenter/View/38425 The PMP document states that the alignment of the Shoreline Levee shown with a dotted line on the PMP Land Use Plan diagram (Page 50) is tentative. In this document, the alignment shown follows the alignment of Alternatives 2 and 3 in the Shoreline Study. On Page 52 of the PMP document, under "Levee Concept", the Shoreline Study is discussed and it is mentioned that "a final levee alignment would be developed through this process". The potential levee alignment that commenters' are referring to is shown in Section 3.6.3 of the PMP's Environmental Impact Report (PMP EIR, October 2013). Figure 3-1 in the PMP EIR shows the final segment of the Pond A18 levee going through the biosolid lagoons and tying into the Coyote Creek Flood Protection Levee further upstream than the Shoreline Study's Alternative 2 and 3. However, the Project Description section of the PMP EIR, states "The levee alignment shown in the proposed site plan is subject to change as the Shoreline study is in the planning phase. Therefore, the levee alignment segment traversing the active biosolids lagoons is identified as tentative in Figure 3-1…. The role of the PMP is to accommodate the levee, which will be designed and constructed by other agencies. City staff will continue to work with the Shoreline Study agencies in the development of the levee." Since the City of San Jose adopted a very conceptual levee alignment and deferred final location to the Shoreline Study process, the Shoreline Study is not in conflict with the City's adopted alternative. See Master Response to Coyote Creek Levee
022_SCVAS_2-4	4. The analysis of the impacts of the flow control structure across Artesian Slough is inadequate. Multiple environmental impacts can be expected, including but not limited to: a) isolating part of the slough; b) placing a levee between the existing mitigation wetlands to the east of Outfall Road and a restored A18; and c) potentially affecting the San Jose Santa Clara Regional Wastewater Facility plant discharge. It is not clear how the proposed structure would function, and whether tidal flows still be allowed in the part of the slough that is being separated from the Bay so as to not impact the slough's habitat. Furthermore, will tidal amplitudes be damped on the interior side of the structure resulting in loss of tidal marsh vegetation? Is there a possibility of fish entrapment (salmonids have been seen in Artesian Slough)? The exact location and function of the structure should be disclosed and justified, alternative locations should be evaluated, and full analysis and evaluation of impacts is needed.	The project team is continuing to analyze and refine the design configuration and operations of the proposed closure on Artesian Slough to minimize impacts to the existing tidal flow regime while providing reliable flood risk management. The analysis provided in the Draft FS/EIS/EIR is based on information existing at the time of review. More details would be developed based on continuing technical discussions with City of San Jose staff as to how the WPCP is expected to operate in the future. However, the basic premise of the tide gate is a technically sound method to allow regular flows in Artesian Slough and secondary channel while blocking extreme tides that could flood adjacent upland areas. In general, the closure would remain in the "open" position until a high water event requiring flood control actions is forecast and/or experienced. The proposed tide gates across the Artesian Slough are based on top-hinged traditional tide gates similar to the structure in place at the Palo Alto flood basin. This type of tide gates open when the force on the gate's upstream side, exceeds the force on the downstream side of the gate. Under varying tide and storm conditions (i.e., normal, the 10 and 100 year tide conditions), the proposed tide gates are open fully during low tides and nearly closed during high tide conditions. During low tide, the tide gates would remain fully open and the water surface elevation in Artesian Slough would reach an equilibrium level, such that the flow through the gates balanced the WPCP effluent. During high tide, the gates would remain only partially open because the water surface elevation on the downstream side of the gates would be greater than the water surface elevation on the upstream side of the gates, allowing less effluent flow through the gates;(i.e., during high tide some of the WPCP effluent would be stored temporarily in Artesian slough until the tide began to drop). The proposed tides gate across the secondary channel, are based on traditional flap gates, whereby the gates remain open under normal, low tide and high tide conditions, to allow flows in and out of the channel. During an extreme tidal or storm event, the gates would be closed because the downstream tidal water surface elevation would be greater than the upstream side and would prevent tidal flows from flowing inland. As flow through the tide gate closure system would be maintained under all but extreme scenarios it will not impact

		habitat in the Slough. Even under the more extreme scenarios where the gate would be completely closed, the closure would be temporary and of short duration, as the tide gates would re-opened when lower tides and/or receding flood waters decrease the pressure on the gates. Thus it is unlikely that aquatic species would be entrained for more than a single tide cycle. See Master Response for Artesian Slough

From:	Patrick Band <pband@savesfbay.org>
Sent:	Monday, February 23, 2015 4:32 PM
To:	Shoreline Environment SPN
Cc:	Paul Kumar
Subject:	[EXTERNAL] Comments re: Shoreline Study EIR/S
Attachments:	LT - South Bay Shoreline Study DEIR Comments FINAL.pdf

Attached, please find comments from Save The Bay on the South Bay Shoreline Study Draft EIR.

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Patrick Band
Campaign Manager, Save The Bay
Office: (510) 463-6811 | Cell: (707) 319-1538
pband@saveSFbay.org | @SaveSFbay_wonks

Call on the EPA to stand up for the Clean Water Act and protect San Francisco Bay!

William DeJager
U.S. rmy Corps of Engineers
San Francisco District
1455 Market St
San Francisco, CA 94103

RE: Comments on Draft Integrated Feasibility Report / Environmental Impact Statement / Environmental Impact Report for the South San Francisco Bay Shoreline Phase 1 Project

Dear Mr. DeJager,

As the oldest and largest regional organization working to protect, restore, and enhance San Francisco Bay, Save The Bay submits these comments on the South San Francisco Bay Shoreline Phase 1 Study. Save The Bay has a long history of support for the South Bay Salt Pond Restoration Project, and appreciates the opportunity afforded by the extension of the comment period to review and respond to the DEIR.

Save The Bay continues to support strongly the habitat restoration goals and processes recommended in the study. Conversion of former salt ponds in the study area to tidal habitat will augment greatly the regional restoration efforts already underway, and improve habitat quality throughout the Bay's former salt pond network.

We would like to highlight areas of the study which are of particular interest, and in which Save The Bay believes improvements could further strengthen alignment with Planning Goals and Objectives, including "[r]estoration of ecological function and habitat quantity, quality and connectivity," as identified in section S-9.

1. <u>Artesian Slough Crossing & Wetlands Connectivity</u>

   Save The Bay is disappointed that the study does not address an alternative to the Artesian Slough alignment (Figure 3.5-2) that would provide ongoing connectivity between mitigation wetlands to the northeast of the slough and Pond A18. The roughly 30 acres of mitigation wetland are known habitat for populations of the Salt Marsh Harvest Mouse, as well as dozens of other species of wildlife. The alignment as currently proposed would permanently separate this critical habitat from the adjacent wetlands, thus directly contradicting Project Planning Objectives (Section 2.5) and Opportunity 3 (Section 2.4.4.1) of the study. 1

   Additionally, we are concerned about the lack of analysis in the study of likely impacts on the Water Pollution Control Plant (WPCP) infrastructure and pumping operations from projected sea level rise at the proposed Artesian Slough flood wall & tide gate. Additional consideration and analysis should be conducted on this issue, including development of an option for a more southern alignment of the flood wall. A more southern flood wall, and a levee alignment to run adjacent to Nine Par and Zanker Road landfills before connecting with the WPCP Segment Levee Alignment, would appear to be a significantly more environmentally beneficial and potentially less costly alternative to the current proposal. 2

oadway, Suite 1800 Oakland CA 94612 510.463.6850 www.saveSFbay.org

2. <u>WPCP Segment Levee Alignment</u>
   Save The Bay is supportive of alignment WPCP South, which while not considered in the study is consistent with the alignment outlined in the City of San Jose's Plant Master Plan. This alignment avoids the significant environmental impacts and reduction in restoration potential for Pond A18 that would occur with either of the two northern alignments, while providing increased habitat potential along that section of Coyote Creek. Expanding on our comments above, we also believe that it is necessary to evaluate fully an option for a more southern terminus of this segment that would provide connectivity between existing mitigation wetlands to the west of Zanker Road landfill and Pond A18.

3 4

3. <u>Expanded Transition Zone</u>
   Save The Bay strongly supports the creation of vital transition zone habitat between tidal wetlands and upland areas. Historically, transition zones in the Bay would extend for as much as a mile or more, providing substantial habitat for native wildlife populations.

   As noted in Section 3.6.2 of the study, establishment of transition zone on the outboard levee at an optimal 30:1 slope will provide significantly more refuge for wildlife than the "bench" alternative, and offer additional and ongoing ecosystem service, including providing a buffer from storm surges and aid in resiliency through gradual sediment accretion to help wetlands keep pace with rising tides. While Save The Bay remains cautious with regard to the implementation process and the composition of any fill material used, we are strongly supportive of the creation of additional transition zone habitat on outboard levees as outlined in the Study.

5

Thank you for the opportunity to share our thoughts and for consideration of our comments on Phase 1 of the South San Francisco Bay Shoreline Study.

Sincerely,

Paul R. Kumar
Political Director, Save The Bay

ID	Issue Text	Response Text
023_STB-1	1. Artesian Slough Crossing & Wetlands Connectivity Save The Bay is disappointed that the study does not address an alternative to the Artesian Slough alignment (Figure 3.5-2) that would provide ongoing connectivity between mitigation wetlands to the northeast of the slough and Pond A18. The roughly 30 acres of mitigation wetland are known habitat for populations of the Salt Marsh Harvest Mouse, as well as dozens of other species of wildlife. The alignment as currently proposed would permanently separate this critical habitat from the adjacent wetlands, thus directly contradicting Project Planning Objectives (Section 2.5) and Opportunity 3 (Section 2.4.4.1) of the study.	See Master Response for Artesian Slough
023_STB-2	Additionally, we are concerned about the lack of analysis in the study of likely impacts on the Water Pollution Control Plant (WPCP) infrastructure and pumping operations from projected sea level rise at the proposed Artesian Slough flood wall & tide gate. Additional consideration and analysis should be conducted on this issue, including development of an option for a more southern alignment of the flood wall. A more southern flood wall, and a levee alignment to run adjacent to Nine Par and Zanker Road landfills before connecting with the WPCP Segment Levee Alignment, would appear to be a significantly more environmentally beneficial and potentially less costly alternative to the current proposal.	The Regional Wastewater Facility is anticipating the need to pump effluent in the future as a response to sea level rise with or without the proposed project. The project team is continuing to analyze the configuration and operations of the proposed closure on Artesian Slough to avoid the need to install pumping sooner than would otherwise occur in a "without-project" condition. Alternative alignments along the border of Artesian Slough were determined to be substantially more costly, impact substantially more existing utilities, and encroach upon, or near, existing landfills. Therefore, the proposed closure was selected as the preferred alternative.
023_STB-3	2. WPCP Segment Levee Alignment Save The Bay is supportive of alignment WPCP South, which while not considered in the study is consistent with the alignment outlined in the City of San Jose's Plant Master Plan. This alignment avoids the significant environmental impacts and reduction in restoration potential for Pond A18 that would occur with either of the two northern alignments, while providing increased habitat potential along that section of Coyote Creek.	See Master Response regarding Coyote Creek Levee Alignment
023_STB-4	Expanding on our comments above, we also believe that it is necessary to evaluate fully an option for a more southern terminus of this segment (WPCP South) that would provide connectivity between existing mitigation wetlands to the west of Zanker Road landfill and Pond A18.	See Master Response regarding Coyote Creek Levee Alignment
023_STB-5	3. Expanded Transition Zone Save The Bay strongly supports the creation of vital transition zone habitat between tidal wetlands and upland areas. Historically, transition zones in the Bay would extend for as much as a mile or more, providing substantial habitat for native wildlife populations. As noted in Section 3.6.2 of the study, establishment of transition zone on the outboard levee at an optimal 30:1 slope will provide significantly more refuge for wildlife than the "bench" alternative, and offer additional and ongoing ecosystem service, including providing a buffer from storm surges and aid in resiliency through gradual sediment accretion to help wetlands keep pace with rising tides. While Save The Bay remains cautious with regard to the implementation process and the composition of any fill material used, we are strongly supportive of the creation of additional transition zone habitat on outboard levees as outlined in the Study.	We thank you for your input and your comment is acknowledged. The proposed project includes the transition zone, and the project partners are in discussions with the agencies with jurisdiction over bay fill. Any fill would meet wetland standards established by the RWQCB.

From: Laura Thompson <LauraT@abag.ca.gov>
Sent: Monday, February 23, 2015 4:46 PM
To: Shoreline Environment SPN
Subject: [EXTERNAL] South San Francisco Bay Shoreline Study Phase 1 Project DEIS/DEIR
Attachments: South SF Bay Shoreline Study DEIR.pdf

ATTN: William DeJager
Environmental Section A

Attached are comments from the San Francisco Bay Trail Project regarding the South San Francisco Bay Shoreline Study Phase 1 Project DEIS/DEIR.

Please let me know if you have any questions.

Thanks,
Laura

Laura Thompson
Bay Trail Project Manager
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607
p. 510-464-7935
f. 510-433-5535
laurat@abag.ca.gov
www.baytrail.org

February 23, 2015

Thomas R. Kendall
Chief, Planning Branch
Engineering and Technical Services Division
U.S. Army Corps of Engineers
1455 Market Street
San Francisco, CA 94103

ATTN: William DeJager
Environmental Section A

Subject: **South San Francisco Bay Shoreline Phase 1 Study, Draft Interim Feasibility Report and Environmental Impact Report/Statement**

Dear Mr. DeJager:

On behalf of the San Francisco Bay Trail Project, thank you for the opportunity to comment on the Draft Interim Feasibility Report and Environmental Impact Report/Statement for the South San Francisco Bay Shoreline Phase 1 Study. The San Francisco Bay Trail is a visionary plan for a bicycle and pedestrian path that will one day allow continuous travel around San Francisco Bay. Currently, 340 miles of trail have been completed. Eventually, the Bay Trail will extend over 500 miles to link the shoreline of nine counties, passing through 47 cities and crossing seven toll bridges.

The following comments focus on the Bay Trail alignment, safety, continuity and experience as analyzed in the DEIR/DEIS:

S-8.4 **Problem 4 – Recreational Access**
The problem should be characterized not as recreational access but as a growing need for expanded recreational access in the South Bay. **1**

Opportunity 4
Describe how this project will expand recreational access rather than referring to the broader South Bay Salt Pond Restoration Project outside the project study area. **2**

S-9 **Planning Goals and Objectives**
In the fourth planning objective, refer to the *San Francisco Bay Trail Plan* (not the California Bay Trail Plan). **3**

Administered by the Association of Bay Area Governments
P.O. Box 2050 • Oakland, CA 94604-2050
Phone: 510-464-7900 • Fax: 510-464-7970
Web: www.baytrail.org

Section 3.7.1	**Recreation Measures** Figure 3.7-5 shows a dashed red line along the northern side of Highway 237 between Zanker Road and Guadalupe Slough that is described in the legend as an existing surface street trail. The figure should be revised to show this on-street facility located on the south side of Highway 237. The location of the red dashed line in this figure is the proposed trail that will be completed as part of this project. These comments also apply to Figure 4.11-1.	4
Section 4.1.3.3.3.6	**Recreational Resources** Revise the last sentence in the first paragraph to read: "In total, the trail will be altered from its current ~~330~~-340-mile length to a ~~400~~-500-milelong trail."	5
Section 4.9.1	The existing bicycle/pedestrian trail adjacent to Highway 237 between Zanker Road and Coyote Creek is part of the Bay Trail and the National Recreation Trail	6
Section 4.11.1.1.2.3	Currently, there are 340 miles of existing Bay Trail in the 500-mile planned system.	7

Thank you for considering these comments and please contact me at 510-464-7935 or laurat@abag.ca.gov if you have questions.

Sincerely,

Laura Thompson

Laura Thompson
Bay Trail Project Manager

ID	Issue Text	Response Text
024_SFBTr-1	The following comments focus on the Bay Trail alignment, safety, continuity and experience as analyzed in the DEIR/DEIS: S-8.4 Problem 4 – Recreational Access The problem should be characterized not as recreational access but as a growing need for expanded recreational access in the South Bay.	We acknowledge that the problem is better described as an increased need for recreational access. The executive summary was substantially shortened and no longer includes this text, but Section 2.4.5 in the Integrated Document was revised to address the comment as follows (strikeout deleted, underline added). 2.4.5 Problem 4 –Increased Need Recreational access
024_SFBTr-2	Opportunity 4 Describe how this project will expand recreational access rather than referring to the broader South Bay Salt Pond Restoration Project outside the project study area.	Thank you for your comment. To address this comment Section 2.4.5.1 of the Integrated Document text was changed as follows (underline added, strikeout deleted): 2.4.5.1 Opportunity 4 There is an opportunity to provide public access, education, and recreational opportunities in the Study Area. Most of the non-urbanized lands and diked ponds within the Study Area are now part of the Refuge. National wildlife refuge lands and waters may be used for wildlife-related recreation to the extent that it is compatible with the primary purpose of the refuge system, which is protecting and enhancing wildlife habitat values. Because of the sensitivity of wildlife to active recreational use, these uses are expected to be expanded only on a limited basis ~~as discussed in the 2007 Final EIS/Environmental Impact Report (EIR) for the SBSPRP~~. Opportunities to provide public access, education, and recreation ~~for the broader SBSPRP project area~~ include development of multi-use trails for walking, jogging, cycling, hiking, and nature observation; facilitating education and photography by constructing viewing platforms ~~and education and interpretive centers along~~] multi-use trails; ~~and building viewing platforms~~ overlooking the ~~remnants of the historical salt works~~ the evolving marshes.
024_SFBTr-3	S-9 Planning Goals and Objectives In the fourth planning objective, refer to the San Francisco Bay Trail Plan (not the California Bay Trail Plan).	Thank you for your clarification. The list of specific goals has been removed from the Executive Summary in an effort to reduce the size of that portion of the document. However, the suggested revision was made to the goals list in Chapter 2, Section 2.5; the 4th bullet has been changed to reference the San Francisco Bay Trail Plan.
024_SFBTr-4	Section 3.7.1 Recreation Measures Figure 3.7-5 shows a dashed red line along the northern side of Highway 237 between Zanker Road and Guadalupe Slough that is described in the legend as an existing surface street trail. The figure should be revised to show this on-street facility located on the south side of Highway 237. The location of the red dashed line in this figure is the proposed trail that will be completed as part of this project. These comments also apply to Figure 4.11-1.	We agree the Existing Trails Maps (Figures 3.7-5 and 4.11-1) should be corrected. The dashed red line adjacent to Highway 237 in the map will be deleted as this is a proposed, not an existing, trail. However, the existing bike lanes on street south of Highway 237 will not be added to map as the Shoreline Study is focused on improving the trail networks closer to the project area, north of Highway 237.
024_SFBTr-5	Section 4.1.3.3.3.6 Recreational Resources Revise the last sentence in the first paragraph to read: “In total, the trail will be altered from its current 340-mile length to a 500-mile long trail.”	The suggested revision to Section 4.1.3.3.3.6 has been made and the revised sentence is as follows: “In total, the trail will be altered from its current 340-mile length to a 500-mile-long trail.”
024_SFBTr-6	Section 4.9.1 The existing bicycle/pedestrian trail adjacent to Highway 237 between Zanker Road and Coyote Creek is part of the Bay Trail and the National Recreation Trail.	Your comment is acknowledged and the text in Section 4.9.1 has been revised. Please refer to the response to Comment ID #010_SJPRNS-5 to see the full text added to the section.
024_SFBTr-7	Section 4.11.1.1.2.3 Currently, there are 340 miles of existing Bay Trail in the 500-mile planned system.	The suggested revision to Section 4.11.1.1.2.3 has been made and the revised sentence is as follows: “Currently, 340 miles of trail have been completed; eventually, the Bay Trail will extend for 500 miles to link the shoreline of nine counties, passing through 47 cities and crossing seven toll bridges.

From: esp_jkclaw@yahoo.com
Sent: Monday, February 23, 2015 4:50 PM
To: Shoreline Environment SPN
Cc: Richard Santos; Bea Leija; jill smith; district4@sanjoseca.gov; Diego Barragan
Subject: [EXTERNAL] Re: comments for the shoreline study

There are two concerns that I would like to be put into the record.

First, the proposed levee will distort the community's horizon; there may need to be some research on how that will affect the residents. Does the sharp incline pose a threat to people on the trail? Could there be effects that may pose a threat to people and children at Don Edwards? Does having a horizon that is not natural by nature have an affect on a persons mind? 1

Second, its my understanding that we will lose several miles of a popular bike and walking trail traditionally used by residents, visitors and that the lead agency responsible for the project will replace these trails with a new trail that will be developed along side the Newby Island Landfill. As you may be aware, citizens have complained that the Newby Island Landfill emits a foul odor among other issues and may discourage bicyclists and pedestrians from using the trail in that location. 2

In my opinion, a better solution for the bike path relocation would be to enhance the recreational experience by acquiring the land, for example property north of State St. There your agency can construct trails, open parkland and activities that people can enjoy. Currently, in the area north of State Street, there are several businesses that are a nuisance to the public and wildlife preserve.

Please consider this area.
This area is currently zoned Industrial, but is butted up against some sensitive areas. These companies are notorious for business practices that are not the kind you would like to have next to the bay marshes and wildlife. 3

Many of these business operators have been observed violating operational permit regulations, filling in areas to widen their lots into the marsh, etc.

Community members are interested in a solution that would address this area, reduce the Industrial and heavy truck aspect.

At the end of the day, many of our Alviso residents want to keep this area open and close to nature, not heavy trucks. We have trucks from the north, trucks from the south and they travel along the east and west. This has all encroached upon residents without the concern of our Council Members or Mayor. 4

Is there any way this project can incorporate or address this north of State Street area? Is there any part of the project focused to improve/address this type of zoning next to these wetlands?

Thank you,

Mark Espinoza

ID	Issue Text	Response Text
025_Espinoza-1	First, the proposed levee will distort the community's horizon; there may need to be some research on how that will affect the residents. Does the sharp incline pose a threat to people on the trail? Could there be effects that may pose a threat to people and children at Don Edwards? Does having a horizon that is not natural by nature have an affect on a persons mind?	Unlike the existing berms around the ponds, the proposed flood protection levees will not feature steeply sloping sides. The levee will be much wider and have a gentler slope. The trails on top of the constructed levee will be wider than the existing trails on top of the salt pond berms and are not expected to pose any public safety concerns. The Shoreline Study team is interpreting the question regarding effects of the horizon on one's mind as a comment/concern relating to aesthetic impacts on local residents. The flood protection levee is not expected to noticeably affect the views of the surrounding landscape and the horizon from the town of Alviso. It will be more noticeable at the Alviso Marina County Park and at the US FWS's Environmental Education Center because these visitor destinations will be much closer to the levee; but even there it is not expected to be significant as discussed in Section 4.12. Please see Chapter 4.12 Aesthetics for additional discussion of the levee appearance and visual simulations of the proposed levees from various points in Alviso. Please also note that the levee will feature a trail on top which will provide enhanced (from slightly higher up) views of the surrounding landscape. In addition, the ponds will be restored to tidal marshes, bringing back more of what was originally the natural landscape in the Alviso area.
025_Espinoza-2	Second, its my understanding that we will lose several miles of a popular bike and walking trail traditionally used by residents, visitors and that the lead agency responsible for the project will replace these trails with a new trail that will be developed along side the Newby Island Landfill. As you may be aware, citizens have complained that the Newby Island Landfill emits a foul odor among other issues and may discourage bicyclists and pedestrians from using the trail in that location.	The commenter is correct to note that the approximately nine mile Alviso Slough Trail around Ponds A9-A15 will be removed as wetland restoration of the ponds is phased in over time. Please see Chapter 4.11 Recreation for additional information about the trails. As the comment notes, the new, additional trail will be constructed as part of the project on the Pond A18 levee (WPCP South alternative) which is adjacent to landfills and biosolid lagoons and there is a history of nuisance odors in this area (see Section 4.10.1.2.6 for a discussion of baseline odor conditions in the Project area). CEQA only requires analysis of project impacts on the environment, but not vice versa. See, for example, *Ballona Wetlands Land Trust v. City of Los Angeles*, 201 Cal. App. 4th 455, 474 (2011); *South Orange County Wastewater Authority v. City of Dana Point*, 196 Cal. App. 4th 1604 (2011); *City of Long Beach v. Los Angeles Unified School District*, 176 Cal. App. 4th 889 (2009). Thus, the EIR/EIS is not required to consider impacts of existing odor on the proposed new trail and trail users.
025_Espinoza-3	In my opinion, a better solution for the bike path relocation would be to enhance the recreational experience by acquiring the land, for example property north of State St. There your agency can construct trails, open parkland and activities that people can enjoy. Currently, in the area north of State Street, there are several businesses that are a nuisance to the public and wildlife preserve. Please consider this area. This area is currently zoned Industrial, but is butted up against some sensitive areas. These companies are notorious for business practices that are not the kind you would like to have next to the bay marshes and wildlife. Many of these business operators have been observed violating operational permit regulations, filling in areas to widen their lots into the marsh, etc. Community members are interested in a solution that would address this area, reduce the Industrial and heavy truck aspect.	The Shoreline Study proposes to put public access trails on top of the levees since the levee tops will be wide and flat for maintenance vehicle access and easily incorporated into the project and are publically owned. The levees will be constructed on top of existing trails in many places and to minimize the loss of these trails, the project proposes to restore the previous trail in virtually the same location. Acquiring land in the town of Alviso could provide additional trail options but it wouldn't replace the advantage of creating a trail through the City property (WPCP South Alternative) which allows the project to connect with the Bay Trail/Coyote Creek Trail and would not meet the objectives of the project as well as the proposed project. Acquiring these lands may reduce land use conflicts but is not consistent with the purpose of the Shoreline Study which is to provide flood protection, ecosystem restoration, and public recreation. Acquiring these lands for just public recreation purposes would not meet the USACE's criteria for cost-sharing, as any recreational values must be specifically associated with the proposed ecosystem restoration features, and USACE policy forbids the acquisition of lands solely for recreation.
025_Espinoza-4	At the end of the day, many of our Alviso residents want to keep this area open and close to nature, not heavy trucks. We have trucks from the north, trucks from the south and they travel along the east and west. This has all encroached upon residents without the concern of our Council Members or Mayor. Is there any way this project can incorporate or address this north of State Street area? Is there any part of the project focused to improve/address this type of zoning next to these wetlands?	The Shoreline Study notes the commenter's desire to minimize truck traffic. The Shoreline Study's approach to minimizing Project related trucks trips on Alviso streets is to locate the main staging areas on Regional Waste Facility (RWF) and landfill lands and to identify haul routes that are either outside of the town or are confined to the edges of town. Haul routes are identified on pp. 4-425-6 in the Integrated Document. Truck trips will be directed through the RWF lands as much as possible, but trucks will need to utilize North First, Gold and Elizabeth Streets to access the County Marina for portions of the Project. The current truck traffic and land use already in Alviso is part of the baseline for purpose of environmental review; CEQA and NEPA only requires mitigation of significant impacts caused by a proposed project/proposed action.

026_BCDC

From: Richmond, Sarah@BCDC <sarah.richmond@bcdc.ca.gov>
Sent: Monday, February 23, 2015 4:54 PM
To: Shoreline Environment SPN; Buxton, Brenda@SCC; MichaelMartin@valleywater.org
Subject: [EXTERNAL] BCDC Comments on South San Francisco Bay Shoreline Study Phase 1 Project
Attachments: BCDC Shoreline Study Comment Letter 022315_Final.pdf

Hi all,

Please find BCDC's comments on the South San Francisco Bay Shoreline Study Phase 1 Project attached.

Let me know if you have any trouble accessing the file.

Thank you,

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Sarah Richmond, P.G.
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February 23, 2015

Mr. Michael Martin
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
(408) 630-3095
michaelmartin@valleywater.org

SUBJECT: South San Francisco Bay Shoreline Phase 1 Study Draft Interim Feasibility Report and Environmental Impact Statement/Report; SCH#2006012020

Dear Mr. Martin:

Thank you for the opportunity to comment on the South San Francisco Bay Shoreline Phase 1 Study Draft Interim Feasibility Report and Environmental Impact Statement/Report, which our office received on December 23, 2014. Although the Commission has not had an opportunity to review this document, the following staff comments are based on the Commission's law, the McAteer-Petris Act, and the policies of the *San Francisco Bay Plan* (Bay Plan). This is a complex study addressing flood risk for the community of Alviso and State Route 237 as well as allow for completion of a significant portion of the South Bay Salt Pond Restoration (SBSPR) effort in the Alviso area. The document's authors have done a tremendous job of synthesizing and presenting an informative and clear body of material describing the project, its potential impacts, and mitigation measures. This multi-purpose flood risk management and ecosystem restoration initiative is one of the first of its kind in the Bay Area to consider sea level rise.

Project Description. The locally preferred plan (LPP) recommended for implementation and identified as the tentatively selected plan (TSP) is Alternative 3, which would include engineered levees along the western and northern outer levees of the New Chicago Marsh along the existing margins of Ponds A12, A13, and A16 (Alviso North alignment) and follow the San Jose-Santa Clara Water Pollution Control Plant (WPCP) levee that runs west to east in a stair-step pattern along the north border (WPCP South alignment) to protect against the 1-percent tidal event with anticipated sea level rise; a tide gate across Artesian Slough; restoration of Ponds A9, A10, A11, A12, A13, A14, A15, and A18; a transition habitat ('ecotone') slope of 30:1 in Ponds A12 and A18; and multi-use trails on top of the new proposed flood risk management levee with connection to the Bay Trail network, viewing platforms and benches, and trail upgrades to be made to an existing segment of the Bay Trail system along State Route 237.

Generally, the Commission's policies encourage the integration of shoreline protection and Bay ecosystem enhancement using adaptive management. Based on review of Alternative 3, it appears that the key policy issues will likely include an analysis of the project's consistency with the Commission's laws and policies on fill in salt ponds, climate change, shoreline protection, safety of fills, tidal marshes and tidal flats, and public access. A short discussion of the Commission's jurisdiction and these laws and policies follows.

Jurisdiction. Commission permits are required for filling, dredging, and substantial changes in use of a structure or an area within the Commission's jurisdiction. Based on the project description, the majority of the proposed work would occur within the Commission's salt pond jurisdiction. The Commission has salt pond jurisdiction in Ponds A9, A10, A11, A12, A13, A14, A15, and A18 and the levees that surround and create the salt ponds. The Commission has Bay jurisdiction to the railroad crossing in Artesian Slough and shoreline band jurisdiction 100 feet inland from and parallel to its Bay jurisdiction. Future applications will need to delineate the Commission's salt pond, Bay, and shoreline band jurisdictions because different factors are considered for authorizations in different locations. Jurisdiction in and around salt ponds can be complicated. We suggest that you work with BCDC staff to ensure that the delineations are accurate. In addition, federal actions, permits, and financial grants affecting the coastal zone are subject to review by the Commission, pursuant to the federal Coastal Zone Management Act, for their consistency with the Bay Plan.

McAteer-Petris Fill Requirements. Section 66605(c) of the McAteer-Petris Act requires that any fill placed in salt ponds (and the Bay) must be the minimum necessary to achieve the purpose of the fill. Alternative 3 involves approximately 165 acres of fill in the Commission's salt pond jurisdiction for the ecotone slope and levee (97 and 68 acres, respectively). The broadly, gently sloping 30:1 ecotone would be constructed on the bay side of the levee, and the slope would encroach about 345 feet into the ponds, taking up about 97 acres of Ponds A12/A13 and Pond A18 in the overall approximately 2900 acre restoration footprint. The Commission has authorized fill in salt ponds for restoration in the past. For example, for the Napa-Sonoma Salt Pond Restoration project (BCDC Permit No. 2004.008), the Commission authorized 93,920 cubic yards (cy) of fill over 79 acres in Pond 10 to raise pond elevation towards marsh plain, and 14,506 cy of fill over 6.5 acres at the Napa Plant Site to create transition zone habitat. The document does not indicate how much of the fill for the ecotone slope would be at marsh versus upland elevations.

The document describes how the ecotone is anticipated to provide short-term and long term-benefits. In the short term, the ecotone would provide wave attenuation and buffer the levee behind it from wave erosion, presumably reducing maintenance needs. In the long term, the ecotone would provide space for marshes to retreat inland in the face of sea level rise, increasing the resilience of the outboard tidal wetlands and the incidental flood benefits they provide. While the document explains that a narrower and steeper slope, e.g., 'bench' in Alternative 2, would provide only a few of these benefits, it could be more clear about how variations in slope between alternatives affects the level of benefits, especially in light of the fact that the non-Federal sponsor may increase the slope of the ecotone (to perhaps 20:1), fluctuate the slope of the ecotone along the length of the levee, and/or not build the ecotone along sections of the levee if a slope of 30:1 is cost-prohibitive and/or there is not adequate free fill material (page 9-3). Final environmental analysis should discuss how the preferred slope is the minimum amount of fill necessary to achieve restoration objectives both under current conditions and as sea level rises. In particular, this discussion should include an explanation of how increased fill for transition zone habitat will achieve restoration objectives because this project appears to propose more upland fill than past restoration projects.

In addition, Section 66605(d) states that the nature, location, and extent of fill should "minimize harmful effects to the bay area, such as the reduction or impairment of the volume surface area or circulation of water, water quality, fertility of marshes or fish or wildlife resources, or other conditions impacting the environment". The document describes in detail how harmful effects to natural resources will be minimized. Final environmental analysis should also discuss geotechnical considerations, such as how the fill could be affected by scour and erosion, influencing the overall durability of the slope and its ability to provide benefits over time. Furthermore, Section 66605(e) states fills must be "constructed in accordance with sound safety standards which will afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters". The document thoroughly assesses hazards associated with geology, seismicity, and flooding. Alternative 3 includes a high enough levee to keep the study area out of the Federal Emergency Management Agency floodplain during the 50-year planning horizon (2017 – 2067, with 2.59 feet of sea level rise 'USACE High Sea Level Change Scenario').

Lastly, Section 66605(f) requires that applicants have valid title "to the properties in question [so] that he or she may fill them in the manner and for the uses to be approved." Property ownership also affects Commission authorization type. The USFWS owns and manages A9, A10, A11, A12, A13, A14, and A15 as part of the Don Edwards San Francisco Bay National Wildlife Refuge. As the landowners of Ponds A9–A15, the USFWS would implement ecosystem restoration and wildlife-dependent recreation improvements on their lands. The USACE would be the Federal implementing agency for all flood risk management features and for ecosystem restoration conducted in Pond A18 owned by the City of San Jose (and not included in the SBSPR study area). All levee segments would be maintained by the SCVWD as a non-Federal sponsor, but it is unclear what entity would manage A18 post-restoration. Given the patchwork of Federal and non-Federal landowners, funding sources, and maintenance responsibilities, the Commission will need to determine whether a permit and/or consistency determination is appropriate during the permitting process.

Bay Plan Salt Pond Policies. The Bay Plan Salt Pond policies encourage the restoration, enhancement, and conversion of former salt ponds to subtidal and wetland habitats, and require that such projects include clear and specific long-term and short-term biological and physical goals, success criteria, a monitoring program, and provisions for long-term maintenance and management needs (see Policy 3). The document describes how the project includes an extensive adaptive management plan (Shoreline Study Monitoring and Adaptive Management Plan for Ecosystem Restoration, Appendix I) that will guide the selection of the final mix of habitats. This plan should include an analysis of anticipated habitat types and their effects on abundance and distribution of fish and wildlife, effects of any proposed fill, flood management measures, protection of public facilities and utilities, and public access (expanded upon below).

Bay Plan Climate Change, Shoreline Protection, and Safety of Fills Policies. The Bay Plan Climate Change policies require a risk assessment for larger projects (Policy 2), and that such projects be designed to be resilient to mid-century sea level rise projection with an adaptive management plan to address impacts from sea level rise at the end of the century (Policy 3). Bay Plan Shoreline Protection policies also require that shoreline protection projects be properly engineered to provide erosion control and flood protection for the expected life of the project based on a 100-year flood event that takes future sea level rise into account. Moreover, the Bay Plan Safety of Fills policies state, in part, that "rights-of-way for levees or other structures protecting inland areas from tidal flooding should be sufficiently wide on the upland side to allow for future levee widening to support additional levee height so that no fill for levee widening is placed in the Bay." The analysis in the document extends to 2067. Final environmental analysis should discuss how the project would be consistent with these requirements, including analysis of adaptability through end of century.

Bay Plan Tidal Marsh and Tidal Flats Policies. The Bay Plan Tidal Marsh and Tidal Flats policies state in part, that, "where a transition zone does not exist and it is feasible and ecologically appropriate, shoreline projects should be designed to provide a transition zone between tidal and upland habitats." The document describes the feasibility of constructing a transition zone and how it is ecologically appropriate because it "mimics the natural landform that once existed around the perimeter of San Francisco Bay" (S-51).

Bay Plan Public Access Policies. The Bay Plan Public Access policies require that a proposed fill project increase public access to the Bay to the maximum extent feasible. The policies also state "public access should be sited, designed, and managed to prevent significant adverse effects on wildlife… [and] avoid significant adverse impacts from sea level rise and shoreline flooding." Overall, ecosystem restoration would result in a reduction of about 7.4 miles of trails, however, with the addition of trail along Pond A18 (3.6 miles) and a proposed trail enhancement at SR 237 (1.6 miles), the net loss would be about 2.2 miles. Final environmental analysis should describe how the proposed trail system would be the maximum feasible public access for the project, and how the trail system would reduce or avoid adverse impacts from human/wildlife interactions, temporary flooding, and permanent inundation.

Thank you for providing staff with the opportunity to review the document. We look forward to continuing a dialogue with the project proponents on this very important project. Please feel free to contact me at (415) 352-3660 or email me at sarah.richmond@bcdc.ca.gov if you have any questions regarding this letter.

Sincerely,

SARAH RICHMOND
Coastal Planner

SR/go

cc: State Clearinghouse

ID	Issue Text	Response Text
026_BCDC-1	Jurisdiction. Commission permits are required for filling, dredging, and substantial changes in use of a structure or an area within the Commission's jurisdiction. Based on the project description, the majority of the proposed work would occur within the Commission's salt pond jurisdiction. The Commission has salt pond jurisdiction in Ponds A9, A10, All, A12, A13, A14, A15, and A18 and the levees that surround and create the salt ponds. The Commission has Bay jurisdiction to the railroad crossing in Artesian Slough and shoreline band jurisdiction 100 feet inland from and parallel to its Bay jurisdiction. Future applications will need to delineate the Commission's salt pond, Bay, and shoreline band jurisdictions because different factors are considered for authorizations in different locations. Jurisdiction in and around salt ponds can be complicated. We suggest that you work with BCDC staff to ensure that the delineations are accurate. In addition, federal actions, permits, and financial grants affecting the coastal zone are subject to review by the Commission, pursuant to the federal Coastal Zone Management Act, for their consistency with the Bay Plan.	The comment is noted. The project proponents have already started working with BCDC staff on permitting issues.
026_BCDC-2	McAteer-Petris Fill Requirements. Section 66605(c) of the McAteer-Petris Act requires that any fill placed in salt ponds (and the Bay) must be the minimum necessary to achieve the purpose of the fill. Alternative 3 involves approximately 165 acres of fill in the Commission's salt pond jurisdiction for the ecotone slope and levee (97 and 68 acres, respectively). The broadly, gently sloping 30:1 ecotone would be constructed on the bay side ofthe levee, and the slope would encroach about 345 feet into the ponds, taking up about 97 acres of Ponds A12/A13 and Pond A18 in the overall approximately 2900 acre restoration footprint. The Commission has authorized fill in salt ponds for restoration in the past. For example, for the Napa-Sonoma Salt Pond Restoration project (BCDC Permit No. 2004.008}, the Commission authorized 93,920 cubic yards (cy) of fill over 79 acres in Pond 10 to raise pond elevation towards marsh plain, and 14,506 cy of fill over 6.5 acres at the Napa Plant Site to create transition zone habitat. The document does not indicate how much of the fill for the ecotone slope would be at marsh versus upland elevations.	The ecotone would fill approximately 97 acres of pond habitat as stated in your comment, resulting in an overall 2,900 acre restoration of tidal marsh habitat. The areas of fill calculated for ecotone vs. levee areas are included in the 404 (b)(1) analysis.
026_BCDC-3	The document describes how the ecotone is anticipated to provide short-term and long term-benefits. In the short term, the ecotone would provide wave attenuation and buffer the levee behind it from wave erosion, presumably reducing maintenance needs. In the long term, the ecotone would provide space for marshes to retreat inland in the face of sea level rise, increasing the resilience of the outboard tidal wetlands and the incidental flood benefits they provide. While the document explains that a narrower and steeper slope, e.g., 'bench' in Alternative 2, would provide only a few of these benefits, it could be more clear about how variations in slope between alternatives affects the level of benefits, especially in light of the fact that the non-Federal sponsor may increase the slope of the ecotone (to perhaps 20: 1), fluctuate the slope of the ecotone along the length of the levee, and/or not build the ecotone along sections of the levee if a slope of 30:1 is cost-prohibitive and/or there is not adequate free fill material (page 9-3). Final environmental analysis should discuss how the preferred slope is the minimum amount of fill necessary to achieve restoration objectives both under current conditions and as sea level rises. In particular, this discussion should include an explanation of how increased fill for transition zone habitat will achieve restoration objectives because this project appears to propose more upland fill than past restoration projects.	The question of the minimum fill needed to achieve the project purpose is discussed in the Consistency Determination for the Coastal Zone Management Act.
026_BCDC-4	In addition, Section 66605(d) states that the nature, location, and extent of fill should "minimize harmful effects to the bay area, such as the reduction or impairment of the volume surface area or circulation of water, water quality, fertility of marshes or fish or wildlife resources, or other conditions impacting the environment" . The document describes in detail how harmful effects to natural resources will be minimized. Final environmental analysis should also discuss geotechnical considerations, such as how the fill could be affected by scour and erosion, influencing the overall durability of the slope and its ability to provide benefits over time.	Considerations for erosion protection are discussed in the Geotechnical Investigation Appendix. It is believed that moderately vegetated levee side slopes will be appreciably resistant to erosion during high water (i.e. tidal) events. Transitional habitat fills provide added protection against erosion during both normal and high water events. It is anticipated that erosion/scour damage will be limited and small enough to either "self-repair" or require minimal action/adaptive management given the soil types to be used for the project fills. Scour related impacts are discussed in Section 4.2.
026_BCDC-5	Furthermore, Section 66605(e) states fills must be "constructed in accordance with sound safety standards which will afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters". The document thoroughly assesses hazards associated with geology, seismicity, and flooding. Alternative 3 includes a high enough levee to keep the study area out of the Federal Emergency Management Agency floodplain during the 50-year planning horizon {2017- 2067, with 2.59 feet of sea level rise 'USACE High Sea Level Change Scenario').	Thank you for your input and your comment is acknowledged; no revision to the text is required.

026_BCDC-6	Lastly, Section 66605(f) requires that applicants have valid title "to the properties in question [so] that he or she may fill them in the manner and for the uses to be approved." Property ownership also affects Commission authorization type. The USFWS owns and managesA9, AlO, All, Al2, A13, A14, and AlS as part of the Don Edwards San Francisco Bay National Wildlife Refuge. As the landowners of Ponds A9-A15, the USFWS would implement ecosystem restoration and wildlife-dependent recreation improvements on their lands. The USACE wouldbe the Federal implementing agency for all flood risk management features and for ecosystem restoration conducted in Pond A18 owned by the City of San Jose. (and not included in the SBSPR study area). All levee segments would be maintained by the SCVWD as a non-Federal sponsor, but it is unclear what entity would manage A18 post-restoration. Given the patchwork of Federal and non-Federal landowners, funding sources, and maintenance responsibilities, the Commission will need to determine whether a permit and/or consistency determination is appropriate during the permitting process.	The Nonfederal Sponsors (NFS), the SCVWD and the SCC, are both working with the City of San Jose to lay out future ownership and operations and maintenance responsibilities for Pond A18 in more detail. By the end of 2015, the NFS are anticipated to enter into a MOU with the City outlining the process for transferring Pond A18 and the adjacent areas associated with the levee to the NFS. It is likely that the SCVWD will acquire fee-title to Pond A18 and the associated levee area as well as the levee-top trail. The SCVWD will likely enter into a joint-use agreement with the City of San Jose for trail management and operation. All FWS properties (Ponds A9-A15 and New Chicago Marsh) will remain in FWS ownership. There are some areas of the project where very small parcels are held by private individuals or state agencies (such as State Lands Commission) and until the project is more advanced in design, the exact determination of lands that need to be acquired cannot yet be made. This does not significantly affect the project, however, as the majority of the lands would be included in the process described above. Before construction commences, the NFS is obliged to furnish all “Lands, Easements, Right-of-Ways, Relocation, and Disposal (LERRDs)” to the Corps for construction. Well prior to that, the detailed lands ownership information will be furnished to BCDC as part of completing the permitting process. Based on land ownership, it is expected that BCDC would issue a Consistency Determination for Ponds A9-A15 and associated levees and lands, and a permit to the NFS for Pond A18 and associated levees and lands (unless BCDC thinks that a CD is more appropriate for the entire project because it is a Corps project).
026_BCDC-7	Bay Plan Salt Pond Policies. The Bay Plan Salt Pond policies encourage the restoration, enhancement, and conversion of former salt ponds to subtidal and wetland habitats, and require that such projects include clear and specific long-term and short-term biological and physical goals, success criteria, a monitoring program, and provisions for long-term maintenance and management needs (see Policy 3). The document describes how the project includes an extensive adaptive management plan (Shoreline Study Monitoring and Adaptive Management Plan for Ecosystem Restoration, Appendix I) that will guide the selection of the final mix of habitats. This plan should include an analysis of anticipated habitat types and their effects on abundance and distribution of fish and wildlife, effects of any proposed fill, flood management measures, protection of public facilities and utilities, and public access (expanded upon below).	The proposed project will follow the SBSP Restoration Project's adaptive management program and rely on this already-established process to guide the selection of the final mix of habitats as suggested by the comment. The Shoreline Study monitoring and adaptive management plan included with the integrated feasibility report and EIS/R was written more narrowly, per Corps requirements, to describe activities that can be cost shared by the Corps, namely those that fall within the project footprint and will determine whether the project has met its ecosystem restoration objectives. Other monitoring and adaptive management activities will be implemented by the SBSP Restoration Project's adaptive management program, such as those that occur outside of the project footprint or are associated with meeting permit requirements, other project purposes (flood risk management and recreation), or mercury issues. Information is provided in the main report regarding anticipated habitat types (Section 4.6.2.3.2 Action Alternatives, Figure 4.6-2 Shoreline Phase I Study Area and Biological Study Area Habitat, Table 4.6-7 Post-Restoration Conditions in the Study Area, Table 4.6-8 Post-Construction Tidal Marsh Totals in the Study Area, and) and their effects on abundance and distribution of fish and wildlife (Section 4.6.2.3.2 Action Alternatives [subsection General Aquatic Habitat Effects], Table 4.6-10 Aquatic Habitat Restoration Targets, Potential Adaptive Management Actions, and Effects on Aquatic Species and Habitat if Actions Are Implemented, Section 4.6.5 Summary, and Section 4.7.2.4.2 Action Alternatives (within Terrestrial Biological Resources section), Section 4.7.2.4.2.3 Operation and Maintenance Effects), the effects of proposed fill (Table 4.6-9 Summary of Impacts on Aquatic Habitats and Species from the Action Alternatives, Section 4.7.2.4.2.2 Ecosystem Restoration Construction Effects (Transitional Habitat subsection and Table 4.7-4 Transitional Habitat Impacts)), and protection of public facilities, utilities, and public access (Sections 4.11 Recreation (subsection 4.11.2.3.2 Action Alternatives) and 4.16 Public Utilities and Service Systems (subsection 4.16.2.3.2 Action Alternatives)).
026_BCDC-8	Bay Plan Climate Change, Shoreline Protection, and Safety of Fills Policies. The Bay Plan Climate Change policies require a risk assessment for larger projects (Policy 2), and that such projects be designed to be resilient to mid-century sea level rise projection with an adaptive management plan to address impacts from sea level rise at the end of the century {Policy 3). Bay Plan Shoreline Protection policies also require that shoreline protection projects be properly engineered to provide erosion control and flood protection for the expected life of the project based on a 100-year flood event that takes future sea level rise into account. Moreover, the Bay Plan Safety of Fills policies state, in part, that "rights-of-way for levees or other structures protecting inland areas from tidal flooding should be sufficiently wide on the upland side to allow for future levee widening to support additional levee height so that no fill for levee widening is placed in the Bay." The analysis in the document extends to 2067. Final environmental analysis should discuss how the project would be consistent with these requirements, including analysis of adaptability through end of century.	Thank you for your input and your comment is acknowledged; no revision to the text is required.
026_BCDC-9	Bay Plan Tidal Marsh and Tidal Flats Policies. The Bay Plan Tidal Marsh and Tidal Flats policies state in part, that, "where a transition zone does not exist and it is feasible and ecologically appropriate, shoreline projects should be designed to provide a transition zone between tidal and upland habitats." The document describes the feasibility of constructing a transition zone and how it is ecologically appropriate because it "mimics the natural landform that once existed around the perimeter of San Francisco Bay" {S-51).	The comment summarizes the intent and purpose of the ecotone proposed in the Shoreline Study Phase I project and that this is consistent with the Bay Plan's Tidal Marsh and Tidal Flat policies. The ecotone is also consistent with the recommendations of the draft Baylands Ecosystem Habitat Goals Update and the final USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California.
026_BCDC-10	Bay Plan Public Access Policies. The Bay Plan Public Access policies require that a proposed fill project increase public access to the Bay to the maximum extent feasible. The policies also state "public access should be sited, designed, and managed to prevent significant adverse effects on wildlife ... [and] avoid significant adverse impacts from sea level rise and shoreline flooding." Overall, ecosystem restoration would result in a reduction of about 7.4 miles of trails, however, with the addition of trail along Pond A18 {3.6 miles) and a proposed trail enhancement at SR 237 {1 .6 miles), the net loss would be about 2.2 miles. Final environmental analysis should describe how the proposed trail system would be the maximum feasible public	Thank you for your input and your comment is acknowledged; no revision to the text is required.

	access for the project, and how the trail system would reduce or avoid adverse impacts from human/wildlife interactions, temporary flooding, and permanent inundation.	

CALIFORNIA Water Boards

EDMUND G. BROWN JR. GOVERNOR

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

Sent via electronic mail: No hard copy to follow

February 23, 2015
CIWQS Place ID No. 813084

Planning Branch
Engineering and Technical Services Division
U.S. Army Corps of Engineers
San Francisco District
1455 Market St. San Francisco, CA 94103

Attn: William DeJager, Environmental Section A (ShorelineEnvironment@usace.army.mil)

Subject: Draft Interim Feasibility Report and Environmental Impact Statement / Report for the South San Francisco Bay Shoreline Phase I Project, Santa Clara County, CA
SCH No. 2006012020

Dear Mr. DeJager:

San Francisco Bay Regional Water Quality Control Board (Water Board) staff appreciates the opportunity to comment on the *Draft Interim Feasibility Report and Environmental Impact Statement / Report for the South San Francisco Bay Shoreline Phase I Study, Santa Clara County, CA* (SCH No. 2006012020) (F/EIS/EIR). The F/EIS/EIR is a combined Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report (Integrated Document) complying with Feasibility Study guidance of the U.S. Army Corps of Engineers (USACE), the National Environmental Policy Act of 1969, as amended (NEPA), and the California Environmental Quality Act of 1974, as amended (CEQA), and is intended to reduce duplication and paperwork.

Project Description and DEIS/DEIR Summary

The South San Francisco Bay Shoreline Study is an Interim Feasibility study that evaluates flood risk management an ecosystem restoration in the Alviso Salt Ponds complex and adjacent community of Alvis , Santa Clara County, California. The locally preferred plan (LPP) recommended for implementation and identified as the tentatively selected plan (TSP) would provide a higher level of flood risk resiliency over the Tentative National Economic Development/National Ecosystem Restoration (NED/NER) plan and would allow for continued Federal Emergency Management Agency (FEMA) accreditation at the end of the study's period of analysis (2017-2067). It would also provide a broad transition zone between upland and tidal

marsh areas with the addition of an ecotone adjacent to some portions of the Flood Risk Management (FRM) levees. This ecotone would benefit the levee structure and provide significantly more acreage for marshes to retreat inland in the face of sea level change. A request for an exception to recommending the NED and NER Plan needs to be approved by the Assistant Secretary of the Army (ASA)'s office at Headquarters United States Army Corps of Engineers (HQUSACE) prior to completion of the draft Feasibility Study/Environmental Impact Statement (F/EIS).

The Santa Clara Valley Water District (SCVWD) and California State Coastal Conservancy (CSCC) are the non-Federal sponsors. They and the U.S. Army Corps of Engineers (USACE), the federal sponsor, initiated the feasibility phase of this study in 2005. The U.S. Fish and Wildlife Service (USFWS), while not a cost-sharing sponsor of the Shoreline Phase I Study, is a major landowner and significant stakeholder in the study area. The USFWS is also a co-Federal lead for the Shoreline Phase I National Environmental Policy Act (NEPA) process. The USFWS will be responsible for implementing ecosystem restoration actions and recreation improvements on lands that they own within the project boundaries – namely the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge). With the passage of the Water Resources Reform and Development Act (WRRDA) of 2014 and language in Section 1025 relevant to the Shoreline Study, however, there may be an opportunity (pending Implementation Guidance) to include the ecosystem restoration of the USFWS lands as part of the Tentative NED/NER Plan or potential LPP, to be cost shared between the USACE and the non-Federal sponsor.

The study area has considerable risk for tidal flooding due to having large areas of low-lying terrain protected by non-engineered dikes. While there is currently some flood risk, the flood risk will substantially increase over the next several decades due to potential sea level change. Because of the substantial flood depths anticipated, the flood risk is high both from a public health and safety perspective as well as damage. In addition to the increased flood risk, the area has lost substantial amounts of coastal wetlands. In the study area, the creation of commercial salt harvesting ponds along southern San Francisco Bay resulted in a loss of most of the tidal salt marsh habitat. These local tidal marsh losses are in addition to San Francisco estuary-wide losses of approximately 90 percent of all tidal wetlands. The flood risk management and ecosystem restoration problems and opportunities are interrelated; implementing flood risk management features now, rather than after sea level rises, allows earlier implementation of the salt marsh restoration. Delaying the restoration may result in a sediment supply that cannot keep up with sea level change and a project that would require imported sediments in order to create marsh rather than rely on natural sedimentation.

The Tentatively Selected Plan (named Proposed Project under CEQA), is also a Locally Preferred Plan (LPP), and is identified as Alternative 3 in the F/EIS/EIR. The components of Alternative 3 include a Alviso North levee alignment, San José–Santa Clara Regional Wastewater Facility (WPCP) South levee alignment, a 30:1 (1 foot of elevation rise for each 30 feet of horizontal distance) ecotone adjacent to Pond A12/13 and A18, restoration of ponds A9-15 and A18, and a tidal flood gate at Artesian Slough. The combined Tentative National Economic Development (NED) / National Ecosystem Restoration (NER) plan is Alternative 2 – Alviso North levee alignment with an associated bench, WPCP South levee alignment, tidal flood gate at Artesian Slough, and restoration of ponds A9-15 and A18. Pending Water Resources Development Act (WRRDA 2014) implementation guidance regarding restoration on USFWS lands, the USACE action will currently be limited to implementing restoration within

Pond A18 and an ecotone adjacent to Pond A18. Therefore, a separate recommendation is made for the USFWS to implement restoration actions on USFWS- owned lands (Ponds A9–A15, and ecotone on A12/13, west of Artesian Slough and north of the community of Alviso).

The Tentatively Selected Plan includes an engineered levee, approximately 15.2 feet high, along existing salt pond berms—the eastern border of Pond A12 and southern borders of Ponds A16 and A18. This levee would provide protection against a 1-percent ACE storm event. The restoration at Pond A18 would consist of breaching existing salt pond berms, guided by the results of monitoring and adaptive management from other restoration efforts in the South Bay, to establish connection with San Francisco Bay, and construction of a 30:1 ecotone transitional habitat feature adjacent to the new levees in Pond A18.

Water Board Staff Comments

Water Board staff has the following General and Individual Comments on the F/EIS/EIR. Overall, we support the Project and recognize that it is needed both for flood protection and to enable the restoration of salt marsh and related habitats in about 2,800 acres of historically diked salt ponds in South San Francisco Bay. The Project presents permitting challenges, in that it would place fill into up to about 137.6 acres of waters of the State, consisting of 16.8 acres of wetlands and 120.8 acres of other waters. This is a significant amount of Bay fill. The Project would facilitate salt marsh restoration and would be part of a long-term adaptive management strategy to address the potential impacts of sea level rise in the Bay. However, the current proposal could have a significant delay between the placement of levee fill (i.e., the impacts) and the salt marsh restoration work (i.e., the mitigation), and other factors lead to uncertainty regarding the timing and potential success of the restoration. We urge the USACE to consider the information below, including our comments on Project design, timing, and funding, which are intended to identify specific permitting challenges and opportunities to address them up-front.

General Comment 1. Water Board staff supports the development of a combined flood control and habitat enhancement project.

We are encouraged by the evaluation of the flood control project as a component of the complete Project to both provide flood protection to communities in the south end of San Francisco Bay and to restore about 2,800 acres of tidal salt marsh in the former Alviso Salt Pond Complex Ponds A9 through A15 and A18. Water Board staff concur with the following text in Section 2.1, *Need for the Project*.

> Both flood risk management and ecosystem restoration are important to both the local community and the larger South Bay area. By formulating a multipurpose flood risk management and ecosystem restoration project, the project partners can both reduce flood risk in the area and facilitate tidal marsh restoration.

1

Reviewed in isolation, the flood control project would place fill into between 57 and 137 acres of waters of the State, consisting of wetlands and open water. This impact is unusually large for a single project and would require significant mitigation to be consistent with the *San Francisco Bay Basin Water Quality Control Plan* (Basin Plan), which incorporates the State of California's no net loss policy (Governor's Executive Order W-59-93 and Senate Concurrent Resolution No. 28). Therefore, the inclusion of tidal marsh restoration, along with the habitat enhancement provided by the proposed ecotone in the LPP, is valuable to expediting the Water Board's

permitting of the Project with a Clean Water Act (CWA) Section 401 water quality certification (Certification) and Waste Discharge Requirements (WDRs) issued pursuant to the California Water Code.

General Comment 2. Proposed mitigation for the impacts associated with the flood control elements of the project may result in a net loss of waters of the State and there is considerable uncertainty associated with full attainment of the Project's restoration goals.

The mitigation proposed for the Project's significant impacts to waters of the State consists of restoring open waters (former salt production ponds) to tidal marshes. This type of mitigation consists of transforming one type of jurisdictional water into a different type of jurisdictional water. The Water Board has not traditionally accepted this type of mitigation for significant impacts to waters of the State, since no new waters of the State are created as mitigation for the acres of waters of the State that will be lost to fill in the course of project implementation.

However, the Basin Plan directs the Water Board to consider specific guidelines and requirements, including the following, as a part of its mandated duty to protect waters of the State:

- The California Wetlands Conservation Policy (Governor's Executive Order W-59-93 and Senate Concurrent Resolution No. 28), requiring no net loss and a long-term net gain in the quantity, quality, and permanence of wetlands in California, including the San Francisco Bay region.
- The *Baylands Ecosystem Habitat Goals* (1999) (*Habitat Goals*), and the *Baylands Ecosystem Species and Community Profiles* (2000) (referred to collectively as the "Habitat Goals Reports"), which are to be used as guides for wetlands restoration in the vicinity of San Francisco Bay.

2

The Habitat Goals Reports envision the restoration of tidal marsh and similar habitat throughout the South Bay region, including the Project area, and contain recommendations for enlarging tidal marshes and protecting and enhancing marsh transition areas.

The Basin Plan recommends that the Habitat Goals Reports, which were written by over 100 local scientists and resource managers, be used as guides for wetland restoration to protect beneficial uses of waters in San Francisco Bay, not only for species but also to purify and store State waters. Use of the Habitat Goals Reports will help ensure that developments in the Project area are implemented in a manner that benefits tidal species, migratory and resident shorebirds, waterfowl, and the federally listed salt marsh harvest mouse (SMHM).

Chapter 5 of the Habitat Goals contains goals for the South Bay Subregion of San Francisco Bay.

> The overall goal in the South Bay subregion is to restore large areas of tidal marsh connected by wide corridors of similar habitat along the perimeter of the Bay. Several large complexes of salt ponds, managed to optimize shorebird and waterfowl habitat functions, should be interspersed throughout the subregion, and naturalistic, unmanaged salt ponds (facsimiles of historical, hypersaline backshore pans) should be restored on the San Leandro shoreline. ***There should be natural transitions from mudflat through tidal marsh to adjacent uplands*** **[*emphasis added*]**, wherever possible. Adjacent moist grasslands, particularly those with vernal pools, should be protected and improved for

wildlife. Riparian vegetation and willow groves should be protected and restored wherever possible

Chapter 5 of the Habitat Goals also includes the following specific recommendations for Segment P of the Bay shoreline – Coyote Creek Area (Southern end of San Francisco Bay between Alviso Slough and Albrae Slough).

- Restore tidal marsh throughout most of the segment, providing a continuous corridor of tidal marsh along the bayshore. The type of tidal marsh created (salt or brackish) will be dependent on the amount and proximity to local freshwater outflows. Restoration should ***emphasize reestablishing a natural transition between tidal marsh and adjacent wetlands and upland habitats*** **[*emphasis added*]**, as well as transitions between salt and brackish tidal marsh.
- Modify and manage a large complex of salt ponds for shorebirds and waterfowl.
- Restore or enhance vernal pools in the adjacent undeveloped uplands.
- Reestablish native riparian vegetation and otherwise improve the riparian corridor along Coyote Creek.
- Manage discharges from the San Jose treatment plant to limit adverse environmental impacts, especially to tidal salt marsh habitat. Consider using recycled water to augment flows in Coyote Creek or for other habitat enhancements.

On the basis of the Habitat Goals Reports, it is likely appropriate for the Water Board to consider using the restoration of salt ponds to tidal marshes as part of the Project's mitigation for impacts to waters of the State. The highlighted text in the quotes from the Habitat Goals Reports is supportive of giving mitigation credit for the creation of ecotones between marshes. However, as is discussed below, the federal sponsor is not currently proposing funding for all of the tidal marsh restoration or any of the ecotone restoration. The uncertainty associated with this funding approach may complicate the Water Board's consideration of Project permits. 2

The Water Board's online *Fact Sheet for Reviewing Wetland and Riparian Projects, San Francisco Bay Water Board* (December 1, 2006), provides guidance for permitting projects with wetland and riparian projects.

The Basin Plan (Section 4.23.4) states that the "Water Board will evaluate both the project and the proposed mitigation together to ensure that there will be no net loss of wetland acreage and no net loss of wetland functions. The Water Board may consider such sources as the *Baylands Ecosystem Habitat Goals* (1999) and the *Baylands Ecosystem Species and Community Profiles* (2000) (referred to collectively as the "Habitat Goals Reports"), the San Francisco Estuary Project's *Comprehensive Conservation and Management Plan (1993),* or other approved watershed management plans when determining out-of-kind mitigation." Mitigation is most effective at maintaining beneficial uses of waters of the State and achieving conformance with No Net Loss polices, first, if the mitigation occurs at the impacted site, which is referred to as "on site" mitigation, and, second, if the mitigation wetland recreates the same type of wetland as the impacted wetland, which is referred to as "in-kind" mitigation. Water Board staff considers proposals for off-site or out-of-kind mitigation where:

1. on-site/in-kind would be impractical;

2. there is an agreed upon watershed plan that justifies the need for off-site or out-of-kind mitigation or Water Board staff believes that the proposed mitigation is environmentally preferable to on-site/in-kind mitigation;
3. there is general agreement with the ecosystem principles or habitat recommendations contained within the Habitat Goals Reports referred to above;
4. other agencies (e.g., U.S. Fish & Wildlife Service [FWS]) prohibit the re-creation of certain wetland or related habitats that threaten special status species13

The No Net Loss Policy is generally used to determine the amount of mitigation required. Existing wetlands are already successful ecosystems, but the success of mitigation projects is highly uncertain until after established monitoring periods have determined that wetland hydrology, vegetation, and soils have developed.... Each site is reviewed on a case-by-case basis, and no pre-determined set of ratios is used to determine mitigation, though a minimum of 1 acre lost to 1 acre gained is typically required. However, temporal losses must also be considered, which are defined as functions lost due to the passage of time between loss of the impacted wetland and creation/restoration of the full-functioning mitigation wetland..... Thereafter, additional mitigation can be required for:

- The loss of or potential for impacts to medium to high quality habitat;
- The loss of or potential for impacts to special status species or their associated habitats;
- The construction or restoration of wetlands that take relatively long to develop (e.g., riparian);
- ***Delays in the construction or restoration of mitigation wetlands, relative to when the impacted wetlands have been filled*** **[*emphasis added*]**. Compensatory mitigation wetlands should generally be restored or constructed prior to or concurrent with filling the impacted wetland, and additional mitigation is typically required when the mitigation work occurs after the impacts;
- ***Uncertainty associated with the construction or restoration of mitigation wetlands*** **[*emphasis added*]**;
- The placement of off-site mitigation wetlands or the creation of out-of-kind wetlands (created or restored wetlands that are different habitat types than the impacted wetland), though this can be allowed where it is demonstrated that an overall net gain will occur.

2

Based on the information provided in the F/EIS/EIR, there is considerable uncertainty associated with the successful establishment of fully functioning tidal marshes in the former salt ponds. As is noted in Chapter 3 of the F/EIS/EIR, the South Bay appears to be on the verge of becoming a sediment sink, rather than a sediment source.

In addition to the uncertainties around sea level change, the other part of the equation for adequate marsh accretion rates is the amount of suspended sediments in San Francisco Bay. Current levels are quite high in the interim study area, and recently restored marshes are benefiting from those levels as evidenced by high accretion rates. Recent research from the USGS, however, indicates that San Francisco Bay is becoming less turbid and that current levels of suspended sediments are not likely to remain the same in coming decades. With increasing sea levels and decreasing sediment supplies, restoration practitioners and

researchers in San Francisco Bay are encouraging proceeding with a sense of urgency to create sustainable marshes. Delays in initiating restoration would create a substantial risk of the ponds being restored to tidal action too late for their bottom surfaces to reach marsh elevation before the acceleration of sea level change renders the natural sedimentation process inadequate for marsh restoration to occur. Waiting until confirmation of the future rate of sea level change would create the risk of not being able to respond in a timely manner to a genuine change in the long-term trend. [From Section 3.11.1.1.2 of the F/EIS/EIR.]

Therefore, it is not completely certain that the South Bay will have sufficient sediment available for full tidal marsh restoration within almost 2,800 acres of current salt ponds at the time that the former salt ponds are breached to restore tidal flow to the ponds. Additional mitigation is usually required by the Water Board to compensate for this type of uncertainty. To compensate for the combination of out-of-kind mitigation, uncertain sediment supply for marsh restoration, and an unusually long time period between project impacts and the successful functioning of restored tidal marshes (See General Comment 3), the Water Board would usually would require that the area of restored tidal marshes be much greater than the area of impacted wetlands and open waters. 2

Since the uncertainties related to sediment supply will increase over time, we encourage the USACE to commence work on the Project as soon as possible. Additionally, we encourage the F/EIS/EIR to consider alternative sediment sources, such as beneficial reuse of dredged sediment associated with maintaining navigational channels in San Francisco Bay.

General Comment 3. There will be a significant time lag between Project impacts to waters of the State and the full functioning of mitigation elements.

Another complication with the Project's mitigation component is the significant time lag between the proposed fill of waters of the State along the proposed alignment of the new flood control levees and both the full restoration of tidal marshes in former salt ponds and the construction and full vegetation of the proposed ecotones. As was noted in General Comment 2, more mitigation is usually required by the Water Board when the duration of temporal losses of aquatic habitats is larger.

The mitigation component of the Project has a very long time lapse between the impacts to the wetlands and other waters in the footprint of the flood protection levee and the initiation of tidal marsh restoration in former salt ponds. According to Section 3.8.3 of the F/EIS/EIR, levee construction will occur between 2017 and 2020. Pond A12 will be breached in 2020 and Ponds A9 through A11 and A18 would be breached in 2025. Therefore, there is an 8 year time lapse between the first impacts to waters of the State and the breaching of levees at the majority of the ponds that are to be restored to tidal marshes. In addition, the end of the temporal loss period will not be attained until the restored marshes have become fully functional tidal marshes (assuming that the sediment supply is sufficient for the creation of the tidal marshes). Most of the projects authorized by Water Board permits commence mitigation construction in the same year that the project causes its first impact to waters of the State. The unusually long temporal loss period associated with the Project's mitigation likely will require a commensurately larger amount of mitigation to be consistent with other Water Board permits for projects with large impacts. In order to minimize the temporal losses associated with the Project, Water Board staff encourages the USACE to start preparation work for tidal breaching concurrently with levee 3

construction so that the first salt pond levees can be breached as soon as the flood control levee is completed.

General Comment 4, Water Board Staff are concerned that the use of the Combined Habitat Assessment Protocols (CHAPS) may not have been appropriate to selecting the Federally Preferred Alternative.

We are concerned that the process used to determine that the creation of an ecotone along the new flood control levee could not be considered part of the federally preferred alternative did not appropriately consider the Project benefits of the ecotones, including potential reductions in costs for the additional mitigation that may be required in the absence of the ecotones. The method used to evaluate environmental benefits of each alternative is summarized in Section S.11.7, *Screening of Ecosystem Restoration Options*:

> The study team evaluated the efficiency of ecosystem restoration options by comparing their costs to ecosystem restoration outputs. Costs include preconstruction engineering and design, real estate, construction, and ongoing operation, maintenance, and rehabilitation. Unlike the flood risk management options, however, benefits arising from an ecosystem restoration are not monetized. The ecosystem restoration outputs are calculated using the Combined Habitat Assessment Protocol (CHAP). The CHAP was agreed upon by the non-Federal sponsors and the vertical team when defining what type of assessment to use to screen ecosystem restoration options (discussed more in Section 3.6.4 *Criteria for Evaluation and Screening of Ecosystem Restoration Options* of the main report). The CHAP model, which is biased towards habitats benefitting more species, did not show increased habitat value for the transitional habitat because it does not benefit more species than does the tidal marsh. [However,] The transitional tidal marsh habitat is highly important, with technical and institutional significance, and will provide habitat functions that have been lost all around the San Francisco Bay.

4

The application of this process to assessing the benefits of the proposed ecotone is summarized in Section S.11.7.2, *Transitional Habitat Screening*:

> The 30:1 ecotone met the completeness, effectiveness, and acceptability criteria but did not meet the efficiency criterion because the environmental benefits analysis (CHAP) did not show additional benefits when adding an ecotone to the project relative to the benefits provided by the less-extensive and less-expensive bench transitional habitat measure. This outcome is despite the widely accepted idea that greater areas of transitional habitats provide an opportunity to create more refugial habitat as well as specialized habitats which have been lost in San Francisco Bay. CHAP was unable to evaluate the efficacy of these considerations. As a result of the efficiency analysis, the level of Federal investment was set at the bench refugia measure, which only provides incidental benefits from building the levee. The additional cost of implementing an ecotone would be a non-Federal expense.

While Water Board staff appreciates the general value of focusing on more than one species in habitat evaluations, as the CHAPS analysis does, the unique characteristics of the restoration opportunities in the Alviso Complex Salt Ponds call for a focus on listed species that depend on tidal marshes. Both the Habitat Goals and the *USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California* (Recovery Plan) (USFWS, August 27, 2013), which include recovery actions for the California Ridgeway rail (formerly California Clapper Rail) and salt marsh harvest mouse (SMHM), support both the restoration of as many acres of

tidal marsh as feasible and the creation of ecotones between marsh habitats and upland high water refuges.

The Recovery Plan features five endangered species: two endangered animals, California clapper rail (*Rallus longirostris obsoletus*) and salt marsh harvest mouse (*Reithrodontomys raviventris*), and three endangered plants, *Cirsium hydrophilum* var. *hydrophilum* (Suisun thistle), *Chloropyron molle* ssp. *molle* (soft bird's-beak), and *Suaeda californica* (California sea-blite). The biology of these species is at the core of the recovery plan, but the goal of this effort is the comprehensive restoration and management of tidal marsh ecosystems. According to the Recovery plan, "California clapper rails occur almost exclusively in tidal and brackish marshes with unrestricted daily tidal flows, adequate invertebrate prey food supply, well developed tidal channel networks, and suitable nesting and escape cover providing refugia during extreme high tides." In the restored marshes, the ecotones will provide critical refuge during extreme high tides.

The Recovery Plan also states that "*Viable* populations of salt marsh harvest mice also appear to be limited by the distribution of high tide cover and escape habitat. Recurrent but shallow flooding by saline water is probably needed to maintain habitat that favors the salt marsh harvest mouse over its potential competitors. Anticipated sea level rise presents a severe threat in the long-term, especially in the central and south San Francisco Bay where opportunities for landward migration of habitat are absent." The proposed ecotones will provide high tide cover and escape habitat, as well as providing some opportunities for landward migration of habitat.

Figure I-1, *Intertidal distribution of the focal species covered in this recovery plan*, in the Recovery Plan shows the distribution of listed species covered in the Recovery Plan along the tidal gradient. As is illustrated in this figure, the upland ecotone is used by both the California clapper rail and the SMHM, and also provides the majority of habitat for the three plant species covered in the Recovery Plan: *Cirsium hydrophilum* var. *hydrophilum, Cordylanthus mollis* ssp. *mollis*, and *Suaeda californica*. Table 8.5-1, *Recovery Plan Criteria for Downlisting and Delisting for California Sea-Blite, Salt Marsh Harvest Mouse, and California Clapper Rail*, in the F/EIS/EIR also emphasizes the importance of high marsh/upland transitional habitats. Since the CHAPs Environmental Benefits analysis was not able to identify the benefit to listed species associated with creating an upland ecotone, we are concerned that the CHAPs method may not have been an appropriate method for evaluating whether the federally preferred alternative should have included the ecotones. 4

Problems related to the use of the CHAPs methodology for the Project are also described in Section 3.11.6 of the F/EIS/EIR.

> The model used by the study to assess environmental benefits, CHAP, was unable to demonstrate that additional costs associated with accelerating restoration, or adding transitional habitat greater than the minimal refugia bench, would result in additional environmental outputs. Model results are presented in Appendix J. For the Pond A12, Ponds A13–A15, and Pond A18 increments considered as part of the CE/ICA process, the CHAP results show that additional cost and additional features result in the same or fewer average annual outputs. This model result is at odds with what the study team believes would be the ***real-world result*** [***emphasis added***]. For example, adding transitional marsh habitat (with 30:1 side slopes) to the restoration effort should result in greater outputs than what would be realized with the smaller bench refugia measure. Like all models, the

> CHAP model is an imperfect representation of the real world, and, whether due to model characteristics or to the way the model was used, it did not demonstrate and quantify this difference.

The analysis in Appendix J shows that the various habitat elements of tidal marshes were assessed as individual habitat units, rather than the complex mosaic of habitats that are essential to the recovery of the California clapper rail and the SMHM. Water Board staff encourages the Project team use an analysis that better reflects a "real-world result."

Section 4.7.2.2, Methodology for Impact Analysis, in the F/EIS/EIR states that, "according to the USACE Planning Guidance Notebook (ER 1105-2-100), the criteria for determining the significance of potential impacts associated with ecological resources "shall include, but not be limited to, ***the scarcity or uniqueness of the resource from a national, regional, state, and local perspective***" [***emphasis added***] (ER 1105-2-100, Appendix C, p. C-15)" and goes on to quote the Planning Guidance Notebook as follows:

> In summary, the case can be made that environmental resources are significant based on technical recognition when, within a specified geographic range, those resources are either scarce; are representative of their respective ecosystems; will improve connectivity or reduce fragmentation of habitat; represent limiting habitat for important species; will improve or increase biodiversity; or trends indicate that the health of the resource is imperiled and declining, but can be recovered through human intervention

This quote appears to support assigning value to the proposed 30:1 ecotone, since ecotone habitats in the South Bay are "scarce; are representative of their respective ecosystems; will improve connectivity or reduce fragmentation of habitat; represent limiting habitat for important species; will improve or increase biodiversity; or trends indicate that the health of the resource is imperiled and declining, but can be recovered through human intervention." 4

Finally, text in Section 9.3 of the F/EIS/EIR emphasizes the essential nature of the ecotone to the Project's mitigation.

> Ecosystem restoration under the TSP would also include an ecotone (30:1) transitional habitat feature in Ponds A12, A13, and A18, which would be constructed bayward to the proposed flood risk management levee along the eastern boarder of Pond A12 and the southern border of the ponds A13 and A18. The ecotone would contribute to the value of the marsh and future success of special status species using the marsh providing an important transitional zone and high-tide refugia. As noted earlier in this report, this sort of upland transitional habitat is not well represented in the South Bay due to severe loss of habitat. In the study area, ecotones are mostly absent along levees due to the abrupt transition between middle marsh habitat and steep-sided levees. In the long term, the transitional ecotone area would provide space for marshes to retreat inland in the face of sea level change. ***This habitat feature is critical to achieving the project's restoration objectives. By providing this refuge, the ecotone would greatly increase the resiliency and longevity of the outboard tidal wetlands and the incidental flood benefits they provide, such as wave attenuation and flood water storage [emphasis added]***.

To Water Board staff, it does not appear appropriate for the federal sponsor to reject funding the construction of the ecotone on the basis of the CHAPs analysis, when the CHAPs analysis would also not support giving the Project mitigation credit for ecotone creation. If the Water Board is

being asked to consider the value of the new ecotones on habitat values when evaluating the sufficiency of the Project's mitigation, then the federal sponsor should also be using the same criteria when selecting the federally funded elements of the Project.

Individual Comment 1

According to text in Section S.11.2.3 *Wastewater Facility (WPCP) Segment Levee Alignment*:

> Four potential WPCP levee alignments are located east of Artesian Slough (Figure S-6). Two variations of WPCP South alignment follow the existing levee that runs west to east in a stair-step pattern along the north border of the existing Wastewater Facility infrastructure. One then cuts across existing Wastewater Facility drying beds, and the other turns north to follow the existing levee along the eastern side of Pond A18. Alternatively, the WPCP North alignment includes construction of a new levee that partially bisects Pond A18, expanding the area that would be available south of the proposed engineered levee, and then also either cuts across existing Wastewater Facility drying beds or turns north to follow the existing levee along the eastern side of Pond A18 (the same as the WPCP South options). Because of the limited availability of public information regarding the Wastewater Facility drying ponds (e.g., hazardous materials), as well as remaining uncertainty regarding the City of San José's future plans for the area, the footprints crossing the Wastewater Facility drying beds were eliminated from consideration prior to USACE's economic analysis of flood risk management options. No further discussion of these alignments is included in this document. As the Wastewater Facility Master Planning effort proceeds into design, however, there may be further opportunity to revisit the alignment section. Additional environmental evaluation would be required if it is decided that this footprint is a better environmental option and meets the Wastewater Facility schedule for discontinuing the operation of drying biosolids in that area.

5

Water Board staff encourage the USACE to retain alignment options through the former Wastewater Facility drying ponds. Although these ponds may contain some contaminants at hazardous levels, the contaminants are relatively immobile inorganic contaminants. Capping such contaminants in place under an engineered levee may be an acceptable means of closing some of these historic wastes in place. It is also possible that a levee alignment along the former drying beds may make it possible to avoid the need for a flood gate across Artesian Slough, since the levee alignment could be brought south of Artesian Slough. While the Water Pollution Control Plant (WPCP) may lose some land area to a levee alignment through the historic drying ponds, removing the proposed flood gate from Artesian Slough may be beneficial for WPCP operating parameters. As is discussed in Individual Comments 2 and 13, placing a flood gate over Artesian Slough about 300 feet downstream from the discharge from the WPCP may complicate the discharge protocols for the WPCP. Under the current NPDES permit for the WPCP, discharge rates of treated, fresh water to Artesian Slough are restricted to prevent impacting tidal marshes with fresh water. Construction of the proposed tide gate over the slough may require a revision of the WPCP's NDPES permit.

Individual Comment 2

According to text in Section S.11.4.2, *Artesian Slough Crossing Options*:

6

> The flood wall closure with tide gate crossing measure met all screening criteria and was retained. The levee measure (construct new levees along Artesian Slough) met all of the screening criteria but was eliminated because it is less economically efficient than the tide gate measure and did not provide any additional advantages relative to the other criteria. A flood wall across the slough would provide an equal level of flood risk management at a lower cost than the new levees along Artesian Slough.

We encourage the USACE to consider retaining the levee measure along Artesian Slough. This would reduce the placement of fill into the Slough and could significantly reduce potential impacts to the WPCP and potential conversion of aquatic habitat in the Slough, thus reducing the Project's mitigation needs. Depending on the extent to which levees on the west and east banks of Artesian Slough would impact existing wetlands, this option may not have significant impacts to wetlands, but would avoid the direct fill of Artesian Slough that would be caused by flood gate construction. Also if the levee alignment were taken through the WPCP's historic drying ponds, the levee on the east bank of Artesian Slough could be eliminated. This option would also not directly impact the discharge of treated WPCP effluent to Artesian Slough, since the mixing zone for cyanide releases from the WPCP would not be impacted by a flood wall across the slough, about 300 feet downstream from the WPCP effluent discharge point. 6

Also, it is not clear that closing flood gates downstream of the WPCP effluent discharge is feasible. In 2012 and 2013, average daily discharge volumes to Artesian Slough were between 90 and 100 million gallons per day (MGD), with a maximum discharge of 132 MGD. Discharge rates from the WPCP are greatest during storm events, when infiltration into laterals adds to the volume of influent that is received by the WPCP, which is subsequently discharged into the Slough. Therefore, the times when the flood gates are most likely to be shut in response to potential flooding are likely to coincide with the highest discharge rates into Artesian Slough. The F/EIS/EIR should have evaluated how effluent would be managed during times when the flood gates are closed to provide flood protection.

Finally, placing a flood gate across Artesian Slough is likely to impact the nature of aquatic habitat upstream of the flood gate. This may be considered an impact to a water of the State that requires mitigation.

Individual Comment 3

Text in Section S.14.1, *National Economic Development* (pages S-43 to S-44), states that:

> There is a difference in cost of approximately $3 million between the two levees. However, the tentatively identified 13.5 foot alternative (NED Plan) has higher net benefits (compared to 12.5 foot levee), is more resilient, is more compatible with California policies on sea level change (CA has adopted a curve that aligns with USACE high SLC curve), and is more consistent with an adaptive management perspective in accordance with ETL 1100-2-1 (*Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation*) with potential lower life-cycle project costs. Further, implementing a 13.5 foot NED Plan in all likelihood would have less long-term environmental impacts (i.e., build the levee once rather than having to mobilize equipment at a later date to raise the levee and incur adverse impacts to established tidal wetlands that support threatened and endangered species). The Tentative NED has therefore been identified as the 13.5 foot levee. It is acknowledged that the NED plan may revert to a different levee height (i.e., 7

12.5 foot) in consideration of policy stated in ER-1105-2100. Exhibit G-1 states that identification of the NED plan is to be based on consideration of the most effective plans for providing different levels of output or service. Where two cost-effective plans produce no significantly different levels of net benefits, the less costly plan is to be the NED plan, even though the level of outputs may be less. Further, USACE policy also generally recommends selection of smaller scale plans when plans have similar net benefits. Since the 12.5 foot levee has similar net benefits to the 13.5 foot levee across all three SLC scenarios, and because it could potentially be raised in the future if necessary for higher sea level change than that projected under the low or intermediate scenarios, it is possible that the 12.5 foot levee may be ultimately selected as the NED FRM option to establish the basis for Federal project cost share. This decision will be made prior to completion of the Final Report submittal.

Water Board staff are supportive of the preference for constructing the most resilient levee as part of the Project, rather than expanding the levee at a later date to maintain flood protection. Opportunities for shoreline mitigation have been declining in the Bay Area and costs for available mitigation options have been increasing. In the long run, it is likely to be cost effective to construct the most resilient levee feasible as part of the Project, since future mitigation for future impacts is likely to be more expensive. If the costs of mitigation associated with future raising of the levee are included in the cost analysis, constructing the higher levee now may be more economical. The absence of cost estimates for mitigation activities is a weakness in the analysis of the Project's alternatives. 7

Additionally, we encourage the federal sponsor to consider making the 15.2 foot levee the federal preferred option. As is noted in Section 4.4.1.2.2.3, land subsidence may be continuing in the Alviso area. Therefore, assessments of levee performance should account for ongoing land subsidence, as well as sea level rise. When land subsidence is factored into future levels of flood protection, it appears possible that the 15.2 foot levee could become the federally preferred alternative.

Individual Comment 4

Section, S.15, *Tentative NED/NER and Locally Preferred Plan*, contains the following text:

> The flood risk management and ecosystem restoration problems and opportunities are interrelated and should be constructed in parallel. Implementation of flood risk management features now, rather than after sea level change, allows earlier implementation of the tidal marsh restoration both on non-Federal lands under the proposed project and incidentally will afford the USFWS (or USACE pending WRRDA 2014, Section 1025 Implementation Guidance) the opportunity to implement tidal wetland restoration on USFWS lands (note- the purpose of flood risk management features is to provide protection to non-Federal infrastructure [i.e., Community of Alviso]). Delaying the restoration could require costly imported sediment to create marsh habitat in consideration of future sea level change. In addition, if the tidal marsh restoration was implemented prior to the flood risk management features, filling of wetlands and endangered species habitat (i.e., the newly established tidal marsh) would be required, resulting in a need to establish an off-site mitigation area. 8

> The Tentative NED/NER Plan includes the Alviso North levee alignment, WPCP South levee alignment with a Tentative 13.5 foot levee height and basic restoration of Ponds A9-15 (USFWS) and Pond A18 (City of San José) with a bench as part of the levee construction, but resulting in incidental transitional habitat (Figure S-9). Under current policy (pending WRRDA 2014, Section 1025 Implementation Guidance regarding restoration activities on USFWS lands), USACE is limited to implementing restoration on Pond A18.

We concur that the "flood risk management and ecosystem restoration problems and opportunities are interrelated and should be constructed in parallel." Because of this, the eventual application for the Project must include both the flood control elements, which have significant impacts to waters of the State, and the habitat restoration elements, which are essential to providing the necessary mitigation for the impacts to waters of the State. 8

However, as is noted in our prior comments, the Tentative NED/NER Plan should include both the 15.2 foot levee and the creation of the 30:1 ecotones on the outboard side of the new levees. We encourage the USACE to factor future mitigation costs associated with raising the levee from 13.5 to 15.2 feet at some time in the future into the economic analysis of alternatives. If sea level rise in the future requires raising the levee to15.2 feet to provide sufficient flood control, this levee raising work may occur after tidal marsh restoration is complete and tidal marsh restoration is no longer a source of mitigation credit.

Individual Comment 5

The summary of unavoidable adverse effects in Section CS-4 does not include the net loss of waters of the State in the footprint of the new levee. 9

Individual Comment 6

We are concerned by the following text in Section 2.7.4, *Additional Planning Considerations*:

> Current USACE levee guidance requires suppression of natural intertidal and transitional vegetation on levees and the artificial maintenance of perennial grass on the entire levee surface. This requirement may be impractical in intertidal brackish and saltwater areas.

As Water Board staff has pointed out in numerous comments on the USACE policy on vegetation on levees, we are concerned that the USACE guidance reduces habitat values on levees, without providing commensurate benefit to the structural integrity of levees. Along levees that will include an outboard ecotone, the lack of vegetation on the levee may be mitigated to a great extent by vegetation in the ecotone. However, along Pond A16, which is operated as a managed pond, the current Project plan does not include an ecotone. Therefore, species attempting to use the levee as a migration corridor will be vulnerable to predation. Water Board staff encourage the Project to include an ecotone along the levee at Pond A16. Vegetation on such an ecotone may provide a more secure migration corridor between Pond A18, to the east of Pond A16, and Ponds A12 and A13, to the west of Pond A16. The barriers to SMHM migration posed by levees with vegetation controls is specifically mentioned on page 4-298 of the F/EIS/EIR. We encourage the USACE to ensure that potential SMHM migration corridors are sufficiently vegetated to support SMHM migration. 10

Individual Comment 7

Section 3.5.5.4 of the F/EIS/EIR describes the reasons for selecting the tide gate option for the Artesian Slough crossing.

> The flood wall closure with tide gate crossing measure met all screening criteria and was retained. The levee measure (construct new levees along Artesian Slough) met all of the screening criteria but was eliminated because it is less economically efficient than the tide gate measure and did not provide any additional advantages relative to the other criteria. A flood wall across the slough would provide an equal level of flood risk management at a lower cost than the new levees along Artesian Slough. With or without a flood wall/tide gate closure, the Wastewater Facility would have to deal with sea level change in their discharge operations. In an effort to best meet the general operation requirements for the Wastewater Facility and allow for discharge during storms, the tide gate will be designed in coordination with Wastewater Facility engineers. It is assumed that the tide gate would have staged elevation relief points to minimize impacts to the treatment plant operation. Additionally, the proposed location of the tide gate for all alignment options would be at least 300 feet bayward of the existing Wastewater Facility outfall for treated water at Artesian Slough (see Figure 3.5-2 *Potential Artesian Slough* Crossing).

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Water Board staff encourage the Project team to conduct further analysis of the Artesian Slough crossing. The Project's preferred flood wall closure with tide gates may provide additional permitting complexity, as well as operational complexity, for this element of the Project. The infrastructure associated with a tide gate will place fill in waters of the State, which will require mitigation. And the placement of a barrier across Artesian Slough, about 300 feet Bayward of the WPCP effluent pipe, may complicate the WPCP's compliance with its NPDES permit. The current NPDES permit limits the amount of treated water that may be discharged to Artesian Slough; this limitation is necessary to minimize the tendency of the effluent stream to convert tidal marshes to brackish or fresh water marshes. Obstructions in the slough may alter the salinity regimes in the slough and require modifications to the WPCP's NPDES permit.

In most of the F/EIS/EIR, the discussion of the tide gates states that they would only be closed in responses to imminent flood events, but in Section 4.6.2.3.2, a reference is made to seasonal closing of the tide gates. Extended periods of tide gate closure will impact salinity regimes in the slough and may affect the relative distribution of tidal and brackish habitats. Such changes in marsh type may require mitigation. The Project team should provide a more detailed description of tide gate operating protocols so that the full range of impacts associated with the tide gates, as well as any necessary mitigation for such impacts, can be evaluated by Water Board staff.

Individual Comment 8

A discussion of the level of Federal investment in the proposed ecotone is provided in Section 3.6.5.2.

> The bench refugia measure met all of the screening criteria and was retained. The 30:1 ecotone met the completeness, effectiveness, and acceptability criteria but did not meet the efficiency criterion because the environmental benefits analysis (CHAP) did not show additional benefits when adding an ecotone to the project relative to the benefits provided by the less-extensive and less-expensive bench transitional habitat measure. The model could not distinguish between two beneficial habitat types, which in this case, tidal habitat is the ideal transition, versus just pond. This outcome is despite the idea that greater areas

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> of transitional habitats provide an opportunity to create tidal marsh habitats that natural sedimentation would not create, because of low pond bottom elevations. As a result of the efficiency analysis, the level of Federal investment was set at the bench refugia measure, and the additional cost of implementing an ecotone would be a non-Federal expense.

As is discussed in General Comment 4, Water Board staff is not convinced that the CHAP analysis appropriately assessed the efficiency criterion. The Recovery Plan, which is a federal document, clearly states that ecotones are an essential habitat element to the recovery of California clapper rails and SMHM, as well as the three plants covered by the Recovery Plan. The Project team is encouraged to revisit the screening protocol and use a protocol that reflects the clear guidance provided in the Recovery Plan. 12

Individual Comment 9

Section 3.9.1.1 of the F/EIS/EIR contains the following text:

> Mitigation for the loss of wetlands and related impacts to wetland species from construction of the levees would be required if this were a USACE single-purpose flood risk management project. Because the project also includes restoration of managed ponds to tidal marsh, however, and this restoration will provide much more habitat than would be lost to the levee construction, no mitigation is proposed.

We are concerned that the approach proposed in this text may pose a significant permitting challenge. For Alternative 3, the Project would place fill into a total of about 137.6 waters of State, consisting of 16.8 acres of wetlands and 120.8 acres of other waters. As noted in General Comments 2 and 3, the mitigation elements of the Project are associated with potentially significant temporal losses in habitat and significant uncertainty related to the availability of sediment for the full restoration of about 2,800 acres of tidal marshes (See Section 3.11.1.1.2 of the F/EIS/EIR). In addition, much of the mitigation is associated with the conversion of one type of water of the State, open waters, into another type of water of the State, tidal marshes. To compensate for the net loss of waters of the State, the Project should demonstrate consistency with the Basin Plan by including closer conformance with the Habitat Goals and the Recovery Plan in the mitigation covered under the federally funded project elements. Also, since some of the mitigation elements are not covered under the federally preferred project, and, therefore, not federally funded, there is additional uncertainty associated with full implementation of all of the Project's mitigation measures. 13

Individual Comment 10

Section 4.4.3 of the F/EIS/EIR discusses potential mitigation measures for the potential impacts of Project-related scour on the Union Pacific Railroad bridge crossing of Coyote Creek. Proposed measures include the following:

- Modify the bridge structure, such as by constructing new pilings and underpinnings, to accommodate the scour.
- Place rock armoring across the channel for some distance upstream and/or downstream of the bridge to limit scour at the bridge supports and approaches.
- Place rock armor along the bed and banks of the channel at the bridge and along the bed and railway embankment on both sides of the bridge to limit scour.

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Water Board staff would like to point out that all of these proposed measures involve the placement of fill in waters of the State and would require permits from the Water Board and

appropriate mitigation. Also, the Water Board does not usually allow armoring that extends from bank to bank across a channel.

Individual Comment 11

The Basin Plan, which was developed under the authority of the State's Porter-Cologne Water Quality Control Act, should be added to Table 4.6-1, *Regulations and Programs That Apply to Aquatic Biological Resources*. In the Basin Plan, waters and wetlands in the South San Francisco Bay have been assigned beneficial uses that include estuarine habitat, fish migration, fish spawning, wildlife habitat, and the preservation of rare and endangered species. 15

Individual Comment 12

Section 4.6.2.2 includes the following text:

> **Impact ABR-1**: Have a substantial adverse effect, either directly or through habitat modifications on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW, or the USFWS; a substantial adverse effect includes an impact that would jeopardize the continued existence of a species listed under the FESA and/or cause substantial adverse effects to EFH; or substantially interfere with the movement of any native resident or migratory fish 16

Please add the National Marine Fisheries Service (NMFS) to the species agencies in this impact discussion. NMFS addresses impacts to EFH and to anadromous fish species (e.g., steelhead and salmon).

Individual Comment 13

Section 4.6.2.3.2, *Action Alternatives*, includes a discussion of operation of the proposed Artesian Slough tide gate (See Page 4-227).

> Seasonal or event-based operation of the Artesian Slough tide gate could interfere with the movement of aquatic species into and out of Artesian Slough for feeding and rearing. Negative effects for fish could be attributed primarily to potential entrainment and stranding on the landward side of a closed gate and exclusion from the slough for fish on the bayward side of the gate. These effects could temporarily affect survivability and could alter migratory patterns, foraging behavior, and the availability of prey. Restoring tidal habitats would provide conditions for improving the health of the estuarine ecosystem and would substantially outweigh potential effects of temporary exclusion from or entrainment in Artesian Slough. 17

This is the first time in the F/EIS/EIR that the possibility of "seasonal" rather than "event-based" operation of the tide gate is proposed. As is noted in Section 4.6.2.3.2, seasonal operation would be likely to have impacts to habitat values in Artesian Slough and habitat types in Artesian Slough. The Water Board is likely to require mitigation for those impacts. Event-based operation is also likely to have impacts habitats in the slough, but those impacts are anticipated to be of shorter duration. The text also suggests that tidal marsh habitat enhancement would mitigate the tide gate's impacts to brackish marsh and open water habitat. As is noted in prior comments, the tidal marsh restoration would be off-site and out-of-kind mitigation for impacts to Artesian Slough.

Seasonal operation of the tide gate is also more likely to impact the WPCP's discharges to Artesian Slough and require modification to the WPCP's NPDES permit.

Individual Comment 14

The discussion of Ongoing Effects Due to the Presence of Recreation Features on Page 4-229 of Section 4.6.2.3.2 should be expanded to include a discussion of the use of pedestrian bridge railings as perches by avian predators of fish, California clapper rails, and SMHM. 18

Individual Comment 15

Page 4-295 of the discussion in Section 4.7.2.4.2.1, *Levee Construction Effects*, includes the following text.

> As noted in Table 4.6-8 *Post-Construction Tidal Marsh Totals in the Study Area*, ecosystem restoration associated with Alternative 3 is expected to result in the creation of 2,783 acres of tidal marsh (assuming the project is implemented as proposed and all ponds are converted). The minor losses of seasonal wetland (saline flat) and muted tidal/diked marsh habitat associated with levee construction effects would be completely offset in the long term by tidal marsh habitat gains associated with the Shoreline Phase I Project.
>
> However, it is understood that the immediate direct effect on the habitat would not be mitigated until a later date. Breach of Pond A18 to restore tidal action is scheduled for 2025–2026; creation of fully functioning tidal marsh would depend on natural action and adaptive management, if needed. This process could take many years. Overall, however, this impact would not be significant since the project would not result in a net loss of tidal marsh habitat over time.
>
> *Impacts on sensitive natural communities, including seasonal wetland and muted tidal/diked marsh habitat as a result of the Alviso North levee segment option would be less than significant.* 19

First, we note that the fill of almost 140 acres of waters of the State is not considered a minor loss by the Water Board. The considerable uncertainties associated with the Project's mitigation measures do not support the statement that "losses of seasonal wetland (saline flat) and muted tidal/diked marsh habitat associated with levee construction effects would be completely offset in the long term by tidal marsh habitat gains associated with the Shoreline Phase I Project."

As noted in prior comments, there are significant uncertainties associated with the proposed mitigation. The timing of the marsh restoration results in significant temporal losses and the availability of sufficient sediment for tidal marsh restoration at the time of the future salt pond levee breaches cannot be guaranteed. Also, as is noted in the Adaptive Management Plan (Appendix I), it is possible the adaptive management responses may reduce the amount of tidal marsh that is restored by the Project. Therefore, there is considerable uncertainty about the Project's ability to restore 2,783 acres of tidal marsh habitat and about the timing of that restoration.

Finally, the lack of federal funding for some of the tidal marsh restoration and all of the ecotone creation adds uncertainty to the full implementation of these Project elements.

Individual Comment 16

Page 4-295 of the discussion in Section 4.7.2.4.2.1, *Levee Construction Effects*, includes the following text under Impact TBR-2: 20

> Loss of SMHM and salt marsh wandering shrew habitat due to construction of the FRM levees would be significant absent the provision for the expansion of restored tidal marsh the FRM levees promotes in adjacent ponds. The project would provide high-quality habitat, which would benefit not only these species but other wetland species.
>
> Tidal marsh habitat created through Pond A18 ecosystem restoration would provide more habitat for these species than what would be lost as a result of the levee construction activity habitat impacts. The project, then, would "self-mitigate" for impacts related to the loss of habitat. Although the tidal marsh habitat would not be established immediately, this impact is not considered significant since the project would not result in a net loss of habitat over time.

20

The argument that Project impacts on SMHM would not be significant over time appears to be flawed. The length of time between impacts to SHMH and the full functioning of restored tidal marshes should be compared to the life cycle of the SHMH. It appears likely that the time lapse between impacts and the full functioning of mitigation may exceed the lifespan of a SMHM. Therefore the impact may be significant and not fully mitigated. Mitigation provided for impacts to SMHM could be enhanced by including the construction of ecotones in the federally funded project.

Individual Comment 17

The discussion of Impact TBR-4 on page 4-328 includes the following text:

> To minimize these types of construction-related impacts, the Shoreline Phase I Study includes several avoidance and minimization measures. Work in and adjacent to potential bird nesting habitat would be conducted outside of the avian nesting season to the ***extent practicable [emphasis added].*** Work in these areas that could cause disturbance or direct take (e.g., accidental crushing of individuals or nests) would be limited to the nonbreeding period to the ***extent practicable [emphasis added]*** (AMM-TRB-2). This condition would minimize potential impacts on nesting birds. If seasonal avoidance is not possible, preconstruction surveys would be conducted for nesting birds (AMM-TRB-3). If any nesting pond–associated waterbirds are detected in areas that could be disturbed by project-related construction activities, project implementation would be delayed or redesigned to minimize potential impacts on actively nesting birds, or other measures may be taken to avoid impacts in consultation with the USFWS and the CDFW.
>
> *Impacts on population and habitat trends resulting from ecosystem restoration construction activities associated with all alternatives would be less than significant.*

21

To better establish the extent to which the proposed mitigation measure would reduce impacts to bird nesting to less than significant levels, please provide the protocol that shall be used to establish the ***extent practicable*** for avoidance measures.

Individual Comment 18

The discussion of Transition Habitat on page 4-329, includes the following text:

> Alternative 3 includes a 30:1 ecotone type of broad, gently sloping transitional habitat along the FRM levee where it abuts Pond A12 and the corner of Pond A13 and Pond A18. The 30:1 ecotone would be constructed on the bay side of the FRM levee, and the slope would encroach about 345 feet into the ponds. Vegetation in the 30:1 transitional habitat

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> area would be limited to nonwoody and semi-woody plants, but would otherwise be lightly managed (such as noxious weed removal) and would not be subject to the USACE policy on levee vegetation. The exception is a 15-foot band adjacent to the exposed levee slope, which would be maintained to USACE levee standards.

Since the ecotone is to be constructed independently of the flood control levee, Water Board staff does not understand why it is necessary to lightly manage vegetation on the ecotone and prevent woody vegetation from establishing on the ecotone. If these vegetation restrictions on the ecotone are not lifted, it will be more difficult for Water Board staff to conclude that the overall Project is self-mitigating. 22

Individual Comment 19

AMM-HAZ-1 in Section 4.8.2.1 of the F/EIS/EIR states:

> All sites listed in Table 4.8-1 that are designated as "having HTRW concerns that are not likely to or with the potential to affect future construction" should be avoided for inclusion in this Proposed Project. Moreover, construction will be avoided in all areas where the presence or potential presence of HTRW has been documented previously. Further coordination with the San José–Santa Clara Regional Wastewater Facility will be conducted in order to accurately locate and avoid all areas with HTRW concerns prior to construction 23

If contaminants in any of these sites consist mostly of fairly inert and immobile chemicals (e.g., metals in soils) it may be acceptable to route levees through these sites. The placement of significant quantities of engineered fill in a permanent flood control structure may be an acceptable method of capping the remaining wastes in place.

Individual Comment 20

Section 5.5.5, *Irreversible and Irretrievable Commitments of Resources (NEPA and CEQA)*, includes the following text in the third bullet point:

> Some of the materials used for transitional habitat construction (Pond A12 materials) would come from on-site sources. The majority of the material (transitional habitat fill for A18) would need to be imported, but an agreement between the local project sponsor and the USACE notes that such material would be imported at no cost to the sponsors. For the Proposed Project, if insufficient free fill material to construct the 30:1 ecotone is acquired by proposed construction dates, the transitional habitat would be reduced in size to the 50-foot bench (as included in all other alternatives); in either case there would be no associated investment by the sponsors for transitional habitat material. 24

The possibility that a lack of material could result in Pond A18 being constructed with a 50-foot bench, rather than a 30:1 ecotone, adds an additional level of uncertainty to the Project's ability to meet its mitigation requirements. This adds further doubt to the Project's ability to be self-mitigating.

Individual Comment 21

In Chapter 9.0, *Findings and Tentatively Selected Plan*, Section 9.1 includes the following text: 25

> The Tentative NED/NER plan is Alternative 2. It includes levees at the same location as Alternative 3, but with a height tentatively identified at 13.5 feet. The Tentative NED/NER

would restore the same set of ponds as the TSP and would result in approximately 2,900 acres of tidal marsh, however, it does not include the 30:1 ecotone that is part of the TSP. Like the TSP, the Tentative NED/NER plan includes a pedestrian bridge over Alviso Slough.

It is not clear to Water Board staff why an alternative that does not provide 100-year flood protection over the lifetime of the Project was selected as the Tentative NED/NER. Text in Section 4.4.1.2.2.3, *Fluvial Flood Hazards*, indicates that, although subsidence in the Alviso area has been slowed since groundwater recharge efforts were initiated in the 1970s, the current rate of subsidence is still being monitored. It may be useful to factor the potential for ongoing subsidence in the Alviso area to impact the level of flood control provided by the current Tentative NED/NER plan. Text on page 4-107 also suggests that construction dewatering and heavy construction activities could produce further subsidence along the Project alignment. Therefore, higher levees may deserve to be selected as the NED/NER plan. 25

Individual Comment 22

Section 9.5.1, *Cost Allocation of the Tentative NED/NER Plan and TSP*, contains the following text:

> For a single purpose FRM project, there would be some environmental impacts. However, the costs for mitigating for such impacts would be insignificant relative to the overall costs. Further, since the ER component of the multipurpose project provides a significant net gain in ecological outputs, a combined plan would not require mitigation and a determination was made that it is not necessary to allocate any ER related costs to the FRM component of the project

The FRM only project would impact about 57 acres of waters of the State. This is a very large impact for a single project. The costs associated with providing sufficient mitigation for such a large impact would be considerable. Recent projects with an order of magnitude lower impacts have had great difficulty in finding sufficient mitigation along the South Bay shoreline. The F/EIS/EIR provides no support for the statement that "the costs for mitigating for such impacts would be insignificant relative to the overall costs." The F/EIS/EIR should either be revised to provide current mitigation costs for impacts on the order of 57 acres of jurisdictional waters, or the sentence should be deleted from the document. In general, the F/EIS/EIR could be improved if estimated mitigation costs for future levee raising to 13.5 or 15.2 feet had been included in the comparison of alternatives. 26

Individual Comment 23

Section 9.6.5.1, *Federal Responsibilities*, includes the following text:

> However, with the passage of the WRRDA 2014 and language in Section 1025 relevant to the Shoreline Study, there may be an opportunity to include the ecosystem restoration of the USFWS lands as part of the NED/NER Plan and TSP, to be cost shared between the USACE and the non-Federal sponsor 27

Water Board staff encourage the USACE to pursue federal funding of the ecosystem restoration elements of the Project, since full implementation of 2,800 acres of tidal marsh restoration and ecotone restoration are likely to be necessary to provide appropriate mitigation for impacts to waters of the State. Federal funding of all tidal marsh restoration and ecotone construction

would also reduce the uncertainties associated with implementation of the Project's mitigation elements.

Individual Comment 24

Section 9.6.5.3, *Views of Non-Federal Sponsors*, includes the following text:

> The LPP is supported by the non-Federal sponsors because it meets local planning objectives, addresses regulatory agency concerns regarding environmental impacts, and allows the project to utilize a free source of fill material to establish transitional habitat. The LPP also eliminates the need to pay flood insurance for the community of Alviso and the surrounding area.
>
> Although non-Federal sponsors understand that the feasibility report must indicate that ecosystem restoration or recreation on USFWS lands would be implemented by the USFWS, they support legislation that would include the USFWS actions in the authorized USACE project, thereby allowing the USACE to be funded to implement these actions. The non-Federal sponsors believe that the overall ecosystem restoration effort (on USFWS and non-Federal lands) would be more efficiently and effectively implemented by one Federal agency. Although the USACE could construct the flood risk management levee and restore Pond A18 without the implementation of the USFWS project, the USFWS project could not proceed until the flood risk management levee is built. In addition, although the Pond A18 restoration could occur without first restoring Pond A12, it would be contrary to the landscape evolution modeling effort undertaken to evaluate the order in which the ponds should be restored. This analysis determined that Pond A12 should be opened to tidal flows first because it is the deepest pond in the study area. It would require more sediment than the other ponds to bring the pond bottom up to marsh plain elevations. If the project is to rely on natural processes to deposit sediments in Pond A12, it is critical to open this pond as soon as possible before sea levels change and bay sediments decline as is currently predicted. In addition, there is concern from the non-Federal sponsors that due to the large size of Pond A18 (856 acres) there is a larger risk of adverse impacts to the regional landscape. From the perspective of Adaptive Management, it would be better to open A18 after other ponds in the area have been opened and there has been monitoring data collected. This would provide project managers an opportunity to delay or modify the breaching of Pond A18 if there were any adverse impacts to local sediment supplies, wildlife, or infrastructure detected. Finally, the non-Federal sponsors are concerned that without a single funding stream, and the certainty associated with sufficient funding, both the USACE and USFWS projects are at greater risk. If one agency is funded but not the other, it is more likely that there will be costly project modifications or that some projects will not be able to be constructed at all.

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Water Board staff shares the concerns of the non-Federal sponsors.

Individual Comment 25

Appendix X to the F/EIS/EIR contains the Shoreline Phase I 404(b)(1) Analysis. Appendix X is only 16 pages long. For a project with potential direct impacts on the order of 140 acres of waters of the U.S. and many potential indirect impacts, this is a fairly brief analysis. Appendix X reads more like a summary of the alternatives discussion on the body of the F/EIS/EIR than a full alternatives analysis.

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In addition, the analysis inappropriately attempts to minimize the Project's considerable impacts to jurisdictional waters by expressing them as a percentage of the total acres of waters present within the Alviso Complex ponds in the project vicinity. This is not an acceptable means of assessing the Project's impacts. Impacts that range between 57 and 138 acres of jurisdictional waters cannot be described as "small".

Also, as is discussed above, the description of many of the Project's impacts as "short term" is not appropriate, since there will be a considerable lag time between impacts and full functioning of restored tidal marshes, and that lag time may be greater than the life cycles of the California clapper rail and the SMHM.

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Please contact me at (510) 622-5680 or brian.wines@waterboards.ca.gov if you have any questions. All future correspondence regarding this Project should reference the CIWQS Place ID Number indicated at the top of this letter.

Sincerely,

Brian Wines
Water Resource Control Engineer
Watershed Management Division

cc: State Clearinghouse (state.clearinghouse@opr.ca.gov)

ID	Issue Text	Response Text
027_RWQCB_2-1	General Comment 1. Water Board staff supports the development of a combined flood control and habitat enhancement project. We are encouraged by the evaluation of the flood control project as a component of the complete Project to both provide flood protection to communities in the south end of San Francisco Bay and to restore about 2,800 acres of tidal salt marsh in the former Alviso Salt Pond Complex Ponds A9 through A15 and A18. Water Board staff concur with the following text in Section 2.1, Need for the Project. Both flood risk management and ecosystem restoration are important to both the local community and the larger South Bay area. By formulating a multipurpose flood risk management and ecosystem restoration project, the project partners can both reduce flood risk in the area and facilitate tidal marsh restoration. Reviewed in isolation, the flood control project would place fill into between 57 and 137 acres of waters of the State, consisting of wetlands and open water. This impact is unusually large for a single project and would require significant mitigation to be consistent with the San Francisco Bay Basin Water Quality Control Plan (Basin Plan), which incorporates the State of California's no net loss policy (Governor's Executive Order W-59-93 and Senate Concurrent Resolution No. 28). Therefore, the inclusion of tidal marsh restoration, along with the habitat enhancement provided by the proposed ecotone in the LPP, is valuable to expediting the Water Board's permitting of the Project with a Clean Water Act (CWA) Section 401 water quality certification (Certification) and Waste Discharge Requirements (WDRs) issued pursuant to the California Water Code.	Your comment is acknowledged; we understand that no revision to the text is requested in this general comment.
027_RWQCB_2-2	General Comment 2. Proposed mitigation for the impacts associated with the flood control elements of the project may result in a net loss of waters of the State and there is considerable uncertainty associated with full attainment of the Project's restoration goals. The mitigation proposed for the Project's significant impacts to waters of the State consists of restoring open waters (former salt production ponds) to tidal marshes. This type of mitigation consists of transforming one type of jurisdictional water into a different type of jurisdictional water. The Water Board has not traditionally accepted this type of mitigation for significant impacts to waters of the State, since no new waters of the State are created as mitigation for the acres of waters of the State that will be lost to fill in the course of project implementation. However, the Basin Plan directs the Water Board to consider specific guidelines and requirements, including the following, as a part of its mandated duty to protect waters of the State: ? The California Wetlands Conservation Policy (Governor's Executive Order W-59-93 and Senate Concurrent Resolution No. 28), requiring no net loss and a long-term net gain in the quantity, quality, and permanence of wetlands in California, including the San Francisco Bay region. ? The Baylands Ecosystem Habitat Goals (1999) (Habitat Goals), and the Baylands Ecosystem Species and Community Profiles (2000) (referred to collectively as the "Habitat Goals Reports"), which are to be used as guides for wetlands restoration in the vicinity of San Francisco Bay. The Habitat Goals Reports envision the restoration of tidal marsh and similar habitat throughout the South Bay region, including the Project area, and contain recommendations for enlarging tidal marshes and protecting and enhancing marsh transition areas. The Basin Plan recommends that the Habitat Goals Reports, which were written by over 100 local scientists and resource managers, be used as guides for wetland restoration to protect beneficial uses of waters in San Francisco Bay, not only for species but also to purify and store State waters. Use of the Habitat Goals Reports will help ensure that developments in the Project area are implemented in a manner that benefits tidal species, migratory and resident shorebirds, waterfowl, and the federally listed salt marsh harvest mouse (SMHM). Chapter 5 of the Habitat Goals contains goals for the South Bay Subregion of San Francisco Bay. The overall goal in the South Bay subregion is to restore large areas of tidal marsh connected by wide corridors of similar habitat along the perimeter of the Bay. Several large complexes of salt ponds, managed to optimize shorebird and waterfowl habitat functions, should be interspersed throughout the subregion, and naturalistic, unmanaged salt ponds (facsimiles of historical, hypersaline backshore pans) should be restored on the San Leandro shoreline. There should be natural transitions from mudflat through tidal marsh to adjacent uplands [emphasis added], wherever possible. Adjacent moist grasslands, particularly those with vernal pools, should be protected and improved for wildlife. Riparian vegetation and willow groves should be protected and restored wherever possible. Chapter 5 of the Habitat Goals also includes the following specific recommendations for Segment P of the Bay shoreline – Coyote Creek Area (Southern end of San Francisco Bay between Alviso Slough and Albrae Slough). ? Restore tidal marsh throughout most of the segment, providing a continuous corridor of tidal marsh along the bayshore. The type of tidal marsh created (salt or brackish) will be dependent on the amount and proximity to local freshwater outflows. Restoration should emphasize reestablishing a natural transition between tidal marsh and adjacent wetlands and upland habitats [emphasis added], as well as transitions between salt and	We appreciate this comment and concur with the Water Board's interpretation of the Basin Plan to protect waters of the State. It is a primary goal of this project to ensure thriving wetland habitat where none currently exists, and to create large transition zones to facilitate the persistence of that habitat in the coming decades in the face of increasing sea levels. It is understood by the project that what we are proposing may result in an immediate decrease in the net amount of waters of the State due to the construction of the levee and ecotone. However, the restoration of these former salt ponds back to tidal wetlands is not possible without the construction of the new levee. In addition, you thoroughly and accurately outline the rationale as to why these features are desirable and potentially appropriate for the water board to accept as mitigation for the loss of water of the State. Since the first draft of the report, the USACE has since received implementation guidance on the language in the latest WRRDA bill that will allow for the federal government to cost share on the ecosystem restoration components of the project. We hope that this helps to alleviate some of the sense of uncertainty around the implementation of the ecosystem restoration components. However, the ecotone portion of the project remains part of the LPP and is the responsibility of the non-federal sponsor. The project proponents agree that time is of the essence and assure you that we are working hard to expedite tidal wetland restoration in the south bay to capitalize on the currently favorable sediment supply situation. Our non-federal sponsors are also simultaneously pursuing upland sources of clean fill, as well as long-term options to bring dredged material to the far south bay.

brackish tidal marsh. ? Modify and manage a large complex of salt ponds for shorebirds and waterfowl. ? Restore or enhance vernal pools in the adjacent undeveloped uplands. ? Reestablish native riparian vegetation and otherwise improve the riparian corridor along Coyote Creek. ? Manage discharges from the San Jose treatment plant to limit adverse environmental impacts, especially to tidal salt marsh habitat. Consider using recycled water to augment flows in Coyote Creek or for other habitat enhancements. On the basis of the Habitat Goals Reports, it is likely appropriate for the Water Board to consider using the restoration of salt ponds to tidal marshes as part of the Project's mitigation for impacts to waters of the State. The highlighted text in the quotes from the Habitat Goals Reports is supportive of giving mitigation credit for the creation of ecotones between marshes. However, as is discussed below, the federal sponsor is not currently proposing funding for all of the tidal marsh restoration or any of the ecotone restoration. The uncertainty associated with this funding approach may complicate the Water Board's consideration of Project permits. The Water Board's online Fact Sheet for Reviewing Wetland and Riparian Projects, San Francisco Bay Water Board (December 1, 2006), provides guidance for permitting projects with wetland and riparian projects. The Basin Plan (Section 4.23.4) states that the "Water Board will evaluate both the project and the proposed mitigation together to ensure that there will be no net loss of wetland acreage and no net loss of wetland functions. The Water Board may consider such sources as the Baylands Ecosystem Habitat Goals (1999) and the Baylands Ecosystem Species and Community Profiles (2000) (referred to collectively as the "Habitat Goals Reports"), the San Francisco Estuary Project's Comprehensive Conservation and Management Plan (1993), or other approved watershed management plans when determining out-of-kind mitigation." Mitigation is most effective at maintaining beneficial uses of waters of the State and achieving conformance with No Net Loss polices, first, if the mitigation occurs at the impacted site, which is referred to as "on site" mitigation, and, second, if the mitigation wetland recreates the same type of wetland as the impacted wetland, which is referred to as "in-kind" mitigation. Water Board staff considers proposals for off-site or out-of-kind mitigation where: 1. on-site/in-kind would be impractical; 2. there is an agreed upon watershed plan that justifies the need for off-site or out-of kind mitigation or Water Board staff believes that the proposed mitigation is environmentally preferable to on-site/in-kind mitigation; 3. there is general agreement with the ecosystem principles or habitat recommendations contained within the Habitat Goals Reports referred to above; 4. other agencies (e.g., U.S. Fish & Wildlife Service [FWS]) prohibit the re-creation of certain wetland or related habitats that threaten special status species13 The No Net Loss Policy is generally used to determine the amount of mitigation required. Existing wetlands are already successful ecosystems, but the success of mitigation projects is highly uncertain until after established monitoring periods have determined that wetland hydrology, vegetation, and soils have developed.... Each site is reviewed on a case-by-case basis, and no pre-determined set of ratios is used to determine mitigation, though a minimum of 1 acre lost to 1 acre gained is typically required. However, temporal losses must also be considered, which are defined as functions lost due to the passage of time between loss of the impacted wetland and creation/restoration of the full-functioning mitigation wetland..... Thereafter, additional mitigation can be required for: ? The loss of or potential for impacts to medium to high quality habitat; ? The loss of or potential for impacts to special status species or their associated habitats; ? The construction or restoration of wetlands that take relatively long to develop (e.g., riparian); ? Delays in the construction or restoration of mitigation wetlands, relative to when the impacted wetlands have been filled [emphasis added]. Compensatory mitigation wetlands should generally be restored or constructed prior to or concurrent with filling the impacted wetland, and additional mitigation is typically required when the mitigation work occurs after the impacts; ? Uncertainty associated with the construction or restoration of mitigation wetlands [emphasis added]; ? The placement of off-site mitigation wetlands or the creation of out-of-kind wetlands (created or restored wetlands that are different habitat types than the impacted wetland), though this can be allowed where it is demonstrated that an overall net gain will occur. Based on the information provided in the F/EIS/EIR, there is considerable uncertainty associated with the successful establishment of fully functioning tidal marshes in the former salt ponds. As is noted in Chapter 3 of the F/EIS/EIR, the South Bay appears to be on the verge of becoming a sediment sink, rather than a sediment source. In addition to the uncertainties around sea level change, the other part of the equation for adequate marsh accretion rates is the amount of suspended sediments in San Francisco Bay. Current levels are quite high in the interim study area, and recently restored marshes are benefiting from those levels as evidenced by high accretion rates. Recent research from the USGS, however, indicates that San Francisco Bay is becoming less turbid and that current levels of suspended sediments are not likely to remain the same in coming decades. With increasing sea levels and decreasing sediment supplies, restoration practitioners and researchers in San Francisco Bay are encouraging proceeding with a sense of urgency to create sustainable marshes. Delays in initiating restoration would create a substantial risk of the ponds being restored to tidal action too late for their bottom surfaces to reach marsh elevation before the acceleration of sea level change

	renders the natural sedimentation process inadequate for marsh restoration to occur. Waiting until confirmation of the future rate of sea level change would create the risk of not being able to respond in a timely manner to a genuine change in the long-term trend. [From Section 3.11.1.1.2 of the F/EIS/EIR.] Therefore, it is not completely certain that the South Bay will have sufficient sediment available for full tidal marsh restoration within almost 2,800 acres of current salt ponds at the time that the former salt ponds are breached to restore tidal flow to the ponds. Additional mitigation is usually required by the Water Board to compensate for this type of uncertainty. To compensate for the combination of out-of-kind mitigation, uncertain sediment supply for marsh restoration, and an unusually long time period between project impacts and the successful functioning of restored tidal marshes (See General Comment 3), the Water Board would usually would require that the area of restored tidal marshes be much greater than the area of impacted wetlands and open waters. Since the uncertainties related to sediment supply will increase over time, we encourage the USACE to commence work on the Project as soon as possible. Additionally, we encourage the F/EIS/EIR to consider alternative sediment sources, such as beneficial reuse of dredged sediment associated with maintaining navigational channels in San Francisco Bay.	
027_RWQCB_2-3	General Comment 3. There will be a significant time lag between Project impacts to waters of the State and the full functioning of mitigation elements. Another complication with the Project's mitigation component is the significant time lag between the proposed fill of waters of the State along the proposed alignment of the new flood control levees and both the full restoration of tidal marshes in former salt ponds and the construction and full vegetation of the proposed ecotones. As was noted in General Comment 2, more mitigation is usually required by the Water Board when the duration of temporal losses of aquatic habitats is larger. The mitigation component of the Project has a very long time lapse between the impacts to the wetlands and other waters in the footprint of the flood protection levee and the initiation of tidal marsh restoration in former salt ponds. According to Section 3.8.3 of the F/EIS/EIR, levee construction will occur between 2017 and 2020. Pond A12 will be breached in 2020 and Ponds A9 through A11 and A18 would be breached in 2025. Therefore, there is an 8 year time lapse between the first impacts to waters of the State and the breaching of levees at the majority of the ponds that are to be restored to tidal marshes. In addition, the end of the temporal loss period will not be attained until the restored marshes have become fully functional tidal marshes (assuming that the sediment supply is sufficient for the creation of the tidal marshes). Most of the projects authorized by Water Board permits commence mitigation construction in the same year that the project causes its first impact to waters of the State. The unusually long temporal loss period associated with the Project's mitigation likely will require a commensurately larger amount of mitigation to be consistent with other Water Board permits for projects with large impacts. In order to minimize the temporal losses associated with the Project, Water Board staff encourages the USACE to start preparation work for tidal breaching concurrently with levee construction so that the first salt pond levees can be breached as soon as the flood control levee is completed.	The project described in the draft IR would breach Pond A18 as soon as practical after completion of the FRM levee and ecotone. Restoration phasing has been adjusted to also breach Pond A12 as soon as practical. Remaining ponds would be breached in two additional phases as previously described.
027_RWQCB_2-4	General Comment 4, Water Board Staff are concerned that the use of the Combined Habitat Assessment Protocols (CHAPS) may not have been appropriate to selecting the Federally Preferred Alternative. We are concerned that the process used to determine that the creation of an ecotone along the new flood control levee could not be considered part of the federally preferred alternative did not appropriately consider the Project benefits of the ecotones, including potential reductions in costs for the additional mitigation that may be required in the absence of the ecotones. The method used to evaluate environmental benefits of each alternative is summarized in Section S.11.7, Screening of Ecosystem Restoration Options: The study team evaluated the efficiency of ecosystem restoration options by comparing their costs to ecosystem restoration outputs. Costs include preconstruction engineering and design, real estate, construction, and ongoing operation, maintenance, and rehabilitation. Unlike the flood risk management options, however, benefits arising from an ecosystem restoration are not monetized. The ecosystem restoration outputs are calculated using the Combined Habitat Assessment Protocol (CHAP). The CHAP was agreed upon by the non-Federal sponsors and the vertical team when defining what type of assessment to use to screen ecosystem restoration options (discussed more in Section 3.6.4 Criteria for Evaluation and Screening of Ecosystem Restoration Options of the main report). The CHAP model, which is biased towards habitats benefitting more species, did not show increased habitat value for the transitional habitat because it does not benefit more species than does the tidal marsh. [However,] The transitional tidal marsh habitat is highly important, with technical and institutional significance, and will provide habitat functions that have been lost all around the San Francisco Bay. The application of this process to assessing the benefits of the proposed ecotone is summarized in Section S.11.7.2, Transitional Habitat Screening: The 30:1 ecotone met the completeness, effectiveness, and acceptability criteria but did not meet the efficiency criterion because the environmental benefits analysis (CHAP) did not show additional benefits when adding an ecotone to the project relative to the benefits provided by the less-extensive and less-expensive bench transitional habitat measure. This outcome is despite	CHAP MODEL SELECTION AND RESULTS The study team examined a number of models for determining ecosystem restoration benefits. To be used in a USACE study, such a model must be able to provide annualized benefits and much have been certified (or otherwise approved for single use) by the USACE Ecosystem Restoration Center of Expertise. Few models fit both criteria, and fewer still were applicable to estuarine habitats in San Francisco Bay. The study team did not consider it practical to develop a new habitat model and obtain certification or approval given the budget and schedule available at the time. The Combined Habitat Assessment Protocols (CHAP) is a habitat evaluation method which builds upon the earlier successes of the US Fish and Wildlife Service Habitat Evaluation Procedures (HEP) and the Northwest Habitat Institute (NHI) Habitat Assessment and Bartering (HAB) method, and which provides annualized habitat units. This method was already being processed for approval or certification on other USACE studies so was considered to be practical for use in this study. It is more sophisticated than the HEP models traditionally used in evaluating the fish and wildlife habitat impacts of federal water resources projects. In general, habitat assessment methods that produce quantified habitat values are essentially accounting systems for summing up fish and wildlife habitat value over time. This sort of approach is required by USACE planning guidance. These models do not directly measure the geomorphic and biochemical functions of wetlands or other habitats. Nor are they able to take a strategic view of fish and wildlife habitat in a landscape context or make subjective judgments of fish and wildlife restoration priorities. This was the case in the analysis of study area habitats by CHAP. The existing ponds, the post-breaching mudflats, and the later tidal marshes all showed high levels of fish and wildlife habitat value under CHAP. The pre-breaching ponds and the later tidal marshes showed the highest values but the differences were not large. Outside of this modeling effort, selection of any of these habitats as a preferred outcome is essentially a subjective decision, albeit one that can be informed by scientific findings. The study started with a goal of restoring tidal habitats so those habitats were preferred. In addition, tidal marsh was favored over tidal mudflats due to greater historic losses and greater current scarcity, so restoration phasing was adjusted during the landscape modeling process to create a better

the widely accepted idea that greater areas of transitional habitats provide an opportunity to create more refugial habitat as well as specialized habitats which have been lost in San Francisco Bay. CHAP was unable to evaluate the efficacy of these considerations. As a result of the efficiency analysis, the level of Federal investment was set at the bench refugia measure, which only provides incidental benefits from building the levee. The additional cost of implementing an ecotone would be a non-Federal expense. While Water Board staff appreciates the general value of focusing on more than one species in habitat evaluations, as the CHAPS analysis does, the unique characteristics of the restoration opportunities in the Alviso Complex Salt Ponds call for a focus on listed species that depend on tidal marshes. Both the Habitat Goals and the USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California (Recovery Plan) (USFWS, August 27, 2013), which include recovery actions for the California Ridgeway rail (formerly California Clapper Rail) and salt marsh harvest mouse (SMHM), support both the restoration of as many acres of tidal marsh as feasible and the creation of ecotones between marsh habitats and upland high water refuges. The Recovery Plan features five endangered species: two endangered animals, California clapper rail (Rallus longirostris obsoletus) and salt marsh harvest mouse (Reithrodontomys raviventris), and three endangered plants, Cirsium hydrophilum var. hydrophilum (Suisun thistle), Chloropyron molle ssp. molle (soft bird's-beak), and Suaeda californica (California seablite). The biology of these species is at the core of the recovery plan, but the goal of this effort is the comprehensive restoration and management of tidal marsh ecosystems. According to the Recovery plan, "California clapper rails occur almost exclusively in tidal and brackish marshes with unrestricted daily tidal flows, adequate invertebrate prey food supply, well developed tidal channel networks, and suitable nesting and escape cover providing refugia during extreme high tides." In the restored marshes, the ecotones will provide critical refuge during extreme high tides. The Recovery Plan also states that "Viable populations of salt marsh harvest mice also appear to be limited by the distribution of high tide cover and escape habitat. Recurrent but shallow flooding by saline water is probably needed to maintain habitat that favors the salt marsh harvest mouse over its potential competitors. Anticipated sea level rise presents a severe threat in the long-term, especially in the central and south San Francisco Bay where opportunities for landward migration of habitat are absent." The proposed ecotones will provide high tide cover and escape habitat, as well as providing some opportunities for landward migration of habitat. Figure I-1, Intertidal distribution of the focal species covered in this recovery plan, in the Recovery Plan shows the distribution of listed species covered in the Recovery Plan along the tidal gradient. As is illustrated in this figure, the upland ecotone is used by both the California clapper rail and the SMHM, and also provides the majority of habitat for the three plant species covered in the Recovery Plan: Cirsium hydrophilum var. hydrophilum, Cordylanthus mollis ssp. mollis, and Suaeda californica. Table 8.5-1, Recovery Plan Criteria for Downlisting and Delisting for California Sea-Blite, Salt Marsh Harvest Mouse, and California Clapper Rail, in the F/EIS/EIR also emphasizes the importance of high marsh/upland transitional habitats. Since the CHAPs Environmental Benefits analysis was not able to identify the benefit to listed species associated with creating an upland ecotone, we are concerned that the CHAPs method may not have been an appropriate method for evaluating whether the federally preferred alternative should have included the ecotones. Problems related to the use of the CHAPs methodology for the Project are also described in Section 3.11.6 of the F/EIS/EIR. The model used by the study to assess environmental benefits, CHAP, was unable to demonstrate that additional costs associated with accelerating restoration, or adding transitional habitat greater than the minimal refugia bench, would result in additional environmental outputs. Model results are presented in Appendix J. For the Pond A12, Ponds A13–A15, and Pond A18 increments considered as part of the CE/ICA process, the CHAP results show that additional cost and additional features result in the same or fewer average annual outputs. This model result is at odds with what the study team believes would be the real-world result [emphasis added]. For example, adding transitional marsh habitat (with 30:1 side slopes) to the restoration effort should result in greater outputs than what would be realized with the smaller bench refugia measure. Like all models, the CHAP model is an imperfect representation of the real world, and, whether due to model characteristics or to the way the model was used, it did not demonstrate and quantify this difference. The analysis in Appendix J shows that the various habitat elements of tidal marshes were assessed as individual habitat units, rather than the complex mosaic of habitats that are essential to the recovery of the California clapper rail and the SMHM. Water Board staff encourages the Project team use an analysis that better reflects a "real-world result." Section 4.7.2.2, Methodology for Impact Analysis, in the F/EIS/EIR states that, "according to the USACE Planning Guidance Notebook (ER 1105-2-100), the criteria for determining the significance of potential impacts associated with ecological resources "shall include, but not be limited to, the scarcity or uniqueness of the resource from a national, regional, state, and local perspective" [emphasis added] (ER 1105-2-100, Appendix C, p. C-15)" and goes on to quote the Planning Guidance Notebook as follows: In summary, the case can be made that environmental resources are significant based on technical

chance of tidal marsh forming prior to the expected period of rapid sea level rise later in the evaluation period. In addition, USACE ecosystem restoration policy favors restoration approaches that are largely self-evolving and self-sustaining after the initial investment.

CHAP found slightly lower habitat outputs with an ecotone included in the design. This was due to loss of habitat value for a number of fish species exceeding the gains to marsh wildlife from having better upland refugia available. Again, models of this sort cannot make strategic trade-offs between suites of species. However, USACE policy requires quantified ecosystem benefits from major ecosystem restoration features. Thus, the ecotone was determined to not qualify for federal funding, but was retained as a locally funded feature.

The study team also selected the California Rapid Assessment Method (CRAM) for evaluation of the restored areas, in the hope that the focus of this method on wetland functions beyond fish and wildlife habitat would allow it to show the expected value of the ecotone. However, this method was unable to produce annualized benefits. In addition, due to the particular history and pattern of both tidal marsh loss and gain in the San Francisco Estuary, available reference sites tended to be poor analogues for the restoration areas to be created by the study alternatives, thus limiting the predictive value of this method.

SINGLE-SPECIES MODELS

The RWQCB comments state: "... the unique characteristics of the restoration opportunities in the Alviso Complex Salt Ponds call for a focus on listed species that depend on tidal marshes." The only unique attribute of the Alviso Ponds area with regard to restoration is the degree of subsidence. Nearly all of the shoreline of the South Bay is lacking the historic ecotone, and all the tidal range of the salt marsh harvest mouse in the South Bay has this problem, so the issue raised here is more generally applicable than to just the Alviso Ponds.

The study sponsors agree that the recovery of listed tidal marsh species is important and that the proposed project would assist with this goal. However, USACE ecosystem restoration studies are focused on evaluating overall benefits to fish and wildlife habitat rather than benefits to one or a few listed species, except in the case of studies specifically targeted to ameliorating the effect of past USACE projects on specific species such as anadromous fish.

One concern raised by the RWQCB is the exclusion of federal funding for the ecotone at the same time that the ecotone is cited as having mitigation value. However, these are different issues. The ecotone did not meet federal criteria for federal funding. However, its inclusion in the proposed plan means that its effects must be considered.

The ecotone would not create additional habitat acreage or more wetland habitat in the long term. In fact, in the long term it would slightly reduce jurisdictional wetland habitat (defined by ordinary high water) relative to the bench it would replace. However, it would have the benefit of restoring new marsh habitat quickly upon breaching of the ponds, relative to the decades required for breached subsided ponds to form new marsh or the minimal wetland habitat that would be created on edge of the bench.

Thus, the ecotone would assist in temporal impact mitigation by replacing relatively rapidly with tidal marshes much of the non-tidal wetland lost due to initial levee construction. The ecotone is probably not the most cost-effective way of providing this temporal mitigation, so this is not a primary argument for building the ecotone. The ecological values of the ecotone are stated in the draft report but the habitat evaluation method did not find these larger than the total fish and wildlife value produced in its absence.

Given the results of the CHAP study, the RWQCB has requested that the study sponsors re-examine the value of the ecotone and "use a protocol that reflects the clear guidance provided in the Recovery Plan". While restoring habitat for listed species is one of the study goals, the primary intent of the study sponsors in studying ecosystem restoration for the study area was always to provide broad-based benefits to fish and wildlife. Should the proposed project be forwarded to Congress for possible authorization, Congress will have the opportunity to decide whether to provide federal funding for the ecotone based on its own criteria.

	recognition when, within a specified geographic range, those resources are either scarce; are representative of their respective ecosystems; will improve connectivity or reduce fragmentation of habitat; represent limiting habitat for important species; will improve or increase biodiversity; or trends indicate that the health of the resource is imperiled and declining, but can be recovered through human intervention This quote appears to support assigning value to the proposed 30:1 ecotone, since ecotone habitats in the South Bay are "scarce; are representative of their respective ecosystems; will improve connectivity or reduce fragmentation of habitat; represent limiting habitat for important species; will improve or increase biodiversity; or trends indicate that the health of the resource is imperiled and declining, but can be recovered through human intervention." Finally, text in Section 9.3 of the F/EIS/EIR emphasizes the essential nature of the ecotone to the Project's mitigation. Ecosystem restoration under the TSP would also include an ecotone (30:1) transitional habitat feature in Ponds A12, A13, and A18, which would be constructed bayward to the proposed flood risk management levee along the eastern boarder of Pond A12 and the southern border of the ponds A13 and A18. The ecotone would contribute to the value of the marsh and future success of special status species using the marsh providing an important transitional zone and high-tide refugia. As noted earlier in this report, this sort of upland transitional habitat is not well represented in the South Bay due to severe loss of habitat. In the study area, ecotones are mostly absent along levees due to the abrupt transition between middle marsh habitat and steep-sided levees. In the long term, the transitional ecotone area would provide space for marshes to retreat inland in the face of sea level change. This habitat feature is critical to achieving the project's restoration objectives. By providing this refuge, the ecotone would greatly increase the resiliency and longevity of the outboard tidal wetlands and the incidental flood benefits they provide, such as wave attenuation and flood water storage [emphasis added]. To Water Board staff, it does not appear appropriate for the federal sponsor to reject funding the construction of the ecotone on the basis of the CHAPs analysis, when the CHAPs analysis would also not support giving the Project mitigation credit for ecotone creation. If the Water Board is being asked to consider the value of the new ecotones on habitat values when evaluating the sufficiency of the Project's mitigation, then the federal sponsor should also be using the same criteria when selecting the federally funded elements of the Project.	
027_RWQCB_2-5	Individual Comment 1 According to text in Section S.11.2.3 Wastewater Facility (WPCP) Segment Levee Alignment: Four potential WPCP levee alignments are located east of Artesian Slough (Figure S-6). Two variations of WPCP South alignment follow the existing levee that runs west to east in a stair-step pattern along the north border of the existing Wastewater Facility infrastructure. One then cuts across existing Wastewater Facility drying beds, and the other turns north to follow the existing levee along the eastern side of Pond A18. Alternatively, the WPCP North alignment includes construction of a new levee that partially bisects Pond A18, expanding the area that would be available south of the proposed engineered levee, and then also either cuts across existing Wastewater Facility drying beds or turns north to follow the existing levee along the eastern side of Pond A18 (the same as the WPCP South options). Because of the limited availability of public information regarding the Wastewater Facility drying ponds (e.g., hazardous materials), as well as remaining uncertainty regarding the City of San José's future plans for the area, the footprints crossing the Wastewater Facility drying beds were eliminated from consideration prior to USACE's economic analysis of flood risk management options. No further discussion of these alignments is included in this document. As the Wastewater Facility Master Planning effort proceeds into design, however, there may be further opportunity to revisit the alignment section. Additional environmental evaluation would be required if it is decided that this footprint is a better environmental option and meets the Wastewater Facility schedule for discontinuing the operation of drying biosolids in that area. Water Board staff encourage the USACE to retain alignment options through the former Wastewater Facility drying ponds. Although these ponds may contain some contaminants at hazardous levels, the contaminants are relatively immobile inorganic contaminants. Capping such contaminants in place under an engineered levee may be an acceptable means of closing some of these historic wastes in place. It is also possible that a levee alignment along the former drying beds may make it possible to avoid the need for a flood gate across Artesian Slough, since the levee alignment could be brought south of Artesian Slough. While the Water Pollution Control Plant (WPCP) may lose some land area to a levee alignment through the historic drying ponds, removing the proposed flood gate from Artesian Slough may be beneficial for WPCP operating parameters. As is discussed in Individual Comments 2 and 13, placing a flood gate over Artesian Slough about 300 feet downstream from the discharge from the WPCP may complicate the discharge protocols for the WPCP. Under the current NPDES permit for the WPCP, discharge rates of treated, fresh water to Artesian Slough are restricted to prevent impacting tidal marshes with fresh water. Construction of the proposed tide gate over the slough may require a revision of the WPCP's NDPES permit.	See Master Response regarding Coyote Creek Levee Alignment

027_RWQCB_2-6	Individual Comment 2 According to text in Section S.11.4.2, Artesian Slough Crossing Options: The flood wall closure with tide gate crossing measure met all screening criteria and was retained. The levee measure (construct new levees along Artesian Slough) met all of the screening criteria but was eliminated because it is less economically efficient than the tide gate measure and did not provide any additional advantages relative to the other criteria. A flood wall across the slough would provide an equal level of flood risk management at a lower cost than the new levees along Artesian Slough. We encourage the USACE to consider retaining the levee measure along Artesian Slough. This would reduce the placement of fill into the Slough and could significantly reduce potential impacts to the WPCP and potential conversion of aquatic habitat in the Slough, thus reducing the Project's mitigation needs. Depending on the extent to which levees on the west and east banks of Artesian Slough would impact existing wetlands, this option may not have significant impacts to wetlands, but would avoid the direct fill of Artesian Slough that would be caused by flood gate construction. Also if the levee alignment were taken through the WPCP's historic drying ponds, the levee on the east bank of Artesian Slough could be eliminated. This option would also not directly impact the discharge of treated WPCP effluent to Artesian Slough, since the mixing zone for cyanide releases from the WPCP would not be impacted by a flood wall across the slough, about 300 feet downstream from the WPCP effluent discharge point. Also, it is not clear that closing flood gates downstream of the WPCP effluent discharge is feasible. In 2012 and 2013, average daily discharge volumes to Artesian Slough were between 90 and 100 million gallons per day (MGD), with a maximum discharge of 132 MGD. Discharge rates from the WPCP are greatest during storm events, when infiltration into laterals adds to the volume of influent that is received by the WPCP, which is subsequently discharged into the Slough. Therefore, the times when the flood gates are most likely to be shut in response to potential flooding are likely to coincide with the highest discharge rates into Artesian Slough. The F/EIS/EIR should have evaluated how effluent would be managed during times when the flood gates are closed to provide flood protection. Finally, placing a flood gate across Artesian Slough is likely to impact the nature of aquatic habitat upstream of the flood gate. This may be considered an impact to a water of the State that requires mitigation.	A number of commenters expressed concern about the proposed tide gate across Artesian Slough and that an alternative levee around Artesian Slough was eliminated from environmental review. Concerns include: -Whether closing tide gates downstream of the WPCP effluent discharge is feasible. -Impacts to the WPCP treatment process. -Conversion of aquatic habitat in Artesian Slough due to freshwater discharges from the WPCP or obstruction in the slough that may alter the salinity -Direct fill of Artesian Slough for the tide gate As stated in the Draft FS/EIS/EIR the levee measure was not carried forward for further analysis because "it is less economically efficient than the tide gate measure and did not provide any additional advantages relative to the other criteria." Additional analysis was conducted on the alternative to extend levees down both sides of Artesian Slough (as depicted in Figure 3.5-2) that was not included in the Draft FS/EIS/EIR. An EIR/EIS must describe a reasonable range of alternatives (CEQA Guidelines, section 15126.6(a); 40 C.F.R. 1502.14). The range of alternatives to be analyzed includes those that could feasibly attain most of the basic objectives of the project while avoiding or substantially lessening any of the significant effects of the project (CEQA Guidelines, section 15126.6(a)). Similarly, under NEPA, alternatives with more significant effects than the proposed action need not be evaluated in an EIS (see for example, Roosevelt Campobello International Park Commission v. EPA, 684 F.2d 1041 (1st Cir. 1982)). An alternative with levees along both sides of Artesian Slough would require the construction of a levee that would run along the east side of New Chicago Marsh to high ground associated with the Zanker Materials Processing Facility and a levee along the east side of Artesian Slough back to Pond A18. Such levees would require fill either into Artesian Slough, New Chicago Marsh, or the wetlands just to the east of this alignment. A preliminary analysis found that approximately 3.6 acres of fill would be required to accommodate the levees. The tide gate across Artesian Slough included as part of the NED and LPP would result in approximately 1.1 acres of fill to Artesian Slough. Since the tide gate requires less fill of wetlands and waters it was considered the preferred alternative for protecting Artesian Slough from tidal flooding. In addition to the amount of fill that would result from constructing the Artesian Slough levees, the levees would greatly interfere with WPCP utilities in the levee footprint, increase the amount of levee material required by the Project with related air quality and noise impacts for levee construction, and potentially pose water quality concerns with bringing the levees to the base of existing and past landfills. Artesian Slough is divided in half for 1,000 feet at its southern end by an earthen berm. The eastern channel is used by the WPCP as part of its discharge and both sides are lined with pipes, monitoring and water treatment equipment, and electrical systems. In addition, there is a weir across this channel to manage flows for the WPCP. The construction of flood protection levees on top of these utilities would likely require re-location of all these services and would fundamentally require adjustments to the current operations of the WPCP. Many of the concerns raised about the proposed tide gates centered on potential impacts to discharge from the WPCP and obstruction of flows in the slough. It is recognized that little detail was provided in the Draft FS/EIS/EIR as to how the tide gate would look and operate. Much of this detail still needs to be developed based on the technical discussions with City of San Jose staff as to how the WPCP is expected to operate in the future. However, the basic premise of the tide gate is a technically sound method to allow regular flows in Artesian Slough and secondary channel while blocking extreme tides that could flood adjacent upland areas. The proposed tide gate across the Artesian Slough is based on a top-hinged traditional tide gate similar to the structure in place at the Palo Alto flood basin. This type of tide gate opens when the force on the gate's upstream side, exceeds the force on the downstream side of the gate. Under varying tide and storm conditions (i.e., normal, the 10- and 100-year tide conditions), the proposed tide gate is open more fully during low tides and less open during high tide conditions. During low tide, the tide gate would be open and the water surface elevation in Artesian Slough would reach an equilibrium level with the tidal event, such that the flow through the gate balances the WPCP effluent. During high tide, the gate would only be partially open because the water surface elevation on the downstream side of the gate would be greater than the water surface elevation on the upstream side of the gate, allowing less effluent flow through the gate;(i.e., during high tide some of the WPCP effluent would be stored temporarily in Artesian slough until the tide begins to drop). At a point in the future with the onset of sea level rise, a pump station will likely be required to ensure the WPCP effluent continues to discharge against the tide gate. With a pump station in operation during extreme tidal events, the tide gate will never be closed, since the pump station would assist the discharge of the effluent against the higher tidal pressure under these extreme events. The proposed tide gate across the secondary channel are based on a traditional flap gate design, whereby the gate remains open under normal, low tide and high tide conditions, to allow flows in and out of the channel. During an extreme tidal event, the gate would be closed because the downstream tidal water surface elevation would be greater than the upstream side and would prevent tidal flows from flowing inland. The Shoreline Study team determined that a tide gate at Artesian Slough was the environmentally preferred concept based on the currently available information. This additional information will be added to Chapter 3 of the Integrated Document.

027_RWQCB_2-7	Individual Comment 3 Text in Section S.14.1, National Economic Development (pages S-43 to S-44), states that: There is a difference in cost of approximately $3 million between the two levees. However, the tentatively identified 13.5 foot alternative (NED Plan) has higher net benefits (compared to 12.5 foot levee), is more resilient, is more compatible with California policies on sea level change (CA has adopted a curve that aligns with USACE high SLC curve), and is more consistent with an adaptive management perspective in accordance with ETL 1100-2-1 (Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation) with potential lower life-cycle project costs. Further, implementing a 13.5 foot NED Plan in all likelihood would have less long-term environmental impacts (i.e., build the levee once rather than having to mobilize equipment at a later date to raise the levee and incur adverse impacts to established tidal wetlands that support threatened and endangered species). The Tentative NED has therefore been identified as the 13.5 foot levee. It is acknowledged that the NED plan may revert to a different levee height (i.e., 12.5 foot) in consideration of policy stated in ER-1105-2100. Exhibit G-1 states that identification of the NED plan is to be based on consideration of the most effective plans for providing different levels of output or service. Where two cost-effective plans produce no significantly different levels of net benefits, the less costly plan is to be the NED plan, even though the level of outputs may be less. Further, USACE policy also generally recommends selection of smaller scale plans when plans have similar net benefits. Since the 12.5 foot levee has similar net benefits to the 13.5 foot levee across all three SLC scenarios, and because it could potentially be raised in the future if necessary for higher sea level change than that projected under the low or intermediate scenarios, it is possible that the 12.5 foot levee may be ultimately selected as the NED FRM option to establish the basis for Federal project cost share. This decision will be made prior to completion of the Final Report submittal. Water Board staff are supportive of the preference for constructing the most resilient levee as part of the Project, rather than expanding the levee at a later date to maintain flood protection. Opportunities for shoreline mitigation have been declining in the Bay Area and costs for available mitigation options have been increasing. In the long run, it is likely to be cost effective to construct the most resilient levee feasible as part of the Project, since future mitigation for future impacts is likely to be more expensive. If the costs of mitigation associated with future raising of the levee are included in the cost analysis, constructing the higher levee now may be more economical. The absence of cost estimates for mitigation activities is a weakness in the analysis of the Project's alternatives. Additionally, we encourage the federal sponsor to consider making the 15.2 foot levee the federal preferred option. As is noted in Section 4.4.1.2.2.3, land subsidence may be continuing in the Alviso area. Therefore, assessments of levee performance should account for ongoing land subsidence, as well as sea level rise. When land subsidence is factored into future levels of flood protection, it appears possible that the 15.2 foot levee could become the federally preferred alternative.	The Shoreline Study includes consideration of *flood risk management.* The study examines the feasibility of moderating flood risk and the economic benefits and costs of providing these modified levels of flood risk over the planning horizon. The economic planning horizon for USACE studies is 50 years. This study considers three sea level rise scenarios for this 50-year period and evaluates the residual risk associated with each scenario. Selection of the levee height as the NED plan is based on several factors according to Engineer Technical Letter (ETL) 1100-2-1 (*Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation*), which includes evaluating residual risk, net economic benefits, and future adaptability. The NED levee height has been closely coordinated with USACE headquarters to ensure the intent of the Engineering Record and ETL are being met. USACE projects are analyzed and described in terms of their expected performance, not in terms of levels of protection. There is no minimum level of performance or protection or size required for USACE projects. The smaller in size or the lower the level of performance however, the higher the residual risk. Residual risk must therefore be carefully analyzed and communicated. The cost of retrofitting the levee in response to a higher-than-expected rate of sea level rise, or to sea level rise after the 50-year period of analysis, is not considered in the economic evaluation. All the alternatives have ability to be adapted to higher sea level through raising the levee height or installing a floodwall on top of the levee in the future. Land subsidence is not continuing in the Alviso area and report text will be revised to clarify this. If a study is authorized in the future to consider additional federal investment in flood risk reduction, the same cost-risk analysis would be completed. The cost analysis would include any new mitigation costs from further flood risk management activities. Such activities could include managed retreat, structural measures, non-structural measures, or a combination of these.
027_RWQCB_2-8	Individual Comment 4 Section, S.15, Tentative NED/NER and Locally Preferred Plan, contains the following text: The flood risk management and ecosystem restoration problems and opportunities are interrelated and should be constructed in parallel. Implementation of flood risk management features now, rather than after sea level change, allows earlier implementation of the tidal marsh restoration both on non-Federal lands under the proposed project and incidentally will afford the USFWS (or USACE pending WRRDA 2014, Section 1025 Implementation Guidance) the opportunity to implement tidal wetland restoration on USFWS lands (note- the purpose of flood risk management features is to provide protection to non-Federal infrastructure [i.e., Community of Alviso]). Delaying the restoration could require costly imported sediment to create marsh habitat in consideration of future sea level change. In addition, if the tidal marsh restoration was implemented prior to the flood risk management features, filling of wetlands and endangered species habitat (i.e., the newly established tidal marsh) would be required, resulting in a need to establish an off-site mitigation area. levee alignment with a Tentative 13.5 foot levee height and basic restoration of Ponds A9-15 (USFWS) and Pond A18 (City of San José) with a bench as part of the levee construction, but resulting in incidental transitional habitat (Figure S-9). Under current policy (pending WRRDA 2014, Section 1025 Implementation Guidance regarding restoration activities on USFWS lands), USACE is limited to implementing restoration on Pond A18. We concur that the "flood risk management and ecosystem restoration problems and opportunities are interrelated and should be constructed in parallel." Because of this, the eventual application for the Project must include both the flood control elements, which have significant impacts to waters of the State, and the habitat restoration elements, which are essential to providing the necessary mitigation for the impacts to waters of the State. However, as is noted in our prior comments, the Tentative NED/NER Plan should include both the 15.2 foot levee and the creation of the 30:1 ecotones on the outboard side of the new levees. We encourage the USACE to factor future mitigation costs associated with raising the levee from 13.5 to 15.2 feet at some time in the future into the economic analysis of alternatives. If sea level rise in the future requires raising the levee to15.2 feet to provide sufficient flood control, this levee raising work may occur after tidal marsh restoration is complete and tidal marsh restoration is no longer a source	The Shoreline Study includes consideration of *flood risk management.* The study examines the feasibility of moderating flood risk and the economic benefits and costs of providing these modified levels of flood risk over the planning horizon. The economic planning horizon for USACE studies is 50 years. This study considers three sea level rise scenarios for this 50-year period and evaluates the residual risk associated with each scenario. Selection of the levee height as the NED plan is based on several factors according to Engineer Technical Letter (ETL) 1100-2-1 (*Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation*), which includes evaluating residual risk, net economic benefits, and future adaptability. The NED levee height has been closely coordinated with USACE headquarters to ensure the intent of the Engineering Record and ETL are being met. USACE projects are analyzed and described in terms of their expected performance, not in terms of levels of protection. There is no minimum level of performance or protection or size required for USACE projects. The smaller in size or the lower the level of performance however, the higher the residual risk. Residual risk must therefore be carefully analyzed and communicated. The cost of retrofitting the levee in response to a higher-than-expected rate of sea level rise, or to sea level rise after the 50-year period of analysis, is not considered in the economic evaluation. All the alternatives have ability to be adapted to higher sea level through raising the levee height or installing a floodwall on top of the levee in the future. Land subsidence is not continuing in the Alviso area and report text will be revised to clarify this. If a study is authorized in the future to consider additional federal investment in flood risk reduction, the same cost-risk analysis would be completed. The cost analysis would include any new mitigation costs from further flood risk management activities. Such activities could include managed retreat, structural measures, non-structural measures, or a combination of these.

	of mitigation credit.	
027_RWQCB_2-9	Individual Comment 5 The summary of unavoidable adverse effects in Section CS-4 does not include the net loss of waters of the State in the footprint of the new levee.	The net loss of waters of the State was not included in Section CS-4 because, for purposes of the CEQA analysis, the Shoreline project was determined to have an overall less-than-significant impact on the quantity and quality of waters of the State. When assessing the impacts of the project, the Shoreline team weighed the impacts of fill with the overall enhancement to the habitat and water quality of San Francisco Bay brought about restoring 2,900 acres of former salt ponds to their historic condition. In addition, to the marsh acreage created in the former salt ponds, approximately 54.7 acres of new vegetated marsh will be created in the first phase of pond restoration by using existing A12 and A18 levees as borrow sites and the lower slope of the ecotone area will become vegetated immediately as described in the response to comment number 24. While the filling of the waters of the state is unavoidable, the Shoreline team determined that it was not a significant adverse effect for CEQA when the project is considered in its entirety.
027_RWQCB_2-10	Individual Comment 6 We are concerned by the following text in Section 2.7.4, Additional Planning Considerations: Current USACE levee guidance requires suppression of natural intertidal and transitional vegetation on levees and the artificial maintenance of perennial grass on the entire levee surface. This requirement may be impractical in intertidal brackish and saltwater areas. As Water Board staff has pointed out in numerous comments on the USACE policy on vegetation on levees, we are concerned that the USACE guidance reduces habitat values on levees, without providing commensurate benefit to the structural integrity of levees. Along levees that will include an outboard ecotone, the lack of vegetation on the levee may be mitigated to a great extent by vegetation in the ecotone. However, along Pond A16, which is operated as a managed pond, the current Project plan does not include an ecotone. Therefore, species attempting to use the levee as a migration corridor will be vulnerable to predation. Water Board staff encourage the Project to include an ecotone along the levee at Pond A16. Vegetation on such an ecotone may provide a more secure migration corridor between Pond A18, to the east of Pond A16, and Ponds A12 and A13, to the west of Pond A16. The barriers to SMHM migration posed by levees with vegetation controls is specifically mentioned on page 4-298 of the F/EIS/EIR. We encourage the USACE to ensure that potential SMHM migration corridors are sufficiently vegetated to support SMHM migration.	Water Board concern over levee vegetation adjacent to Pond A16 is addressed by specific measures for this section of levee which were not adequately discussed in the draft IR. Levee vegetation along Pond A16 is expected to include scattered pickleweed and fairly continuous low vegetation on both sides of the levee, and will likely provide better vegetative cover than is on the existing levee. Provision of an ecotone along this section of levee, as suggested by the RWQCB, would not provide the marsh transition benefits that it would provide in a tidal zone and would encroach upon the managed pond habitat of Pond A16.
027_RWQCB_2-11	Individual Comment 7 Section 3.5.5.4 of the F/EIS/EIR describes the reasons for selecting the tide gate option for the Artesian Slough crossing. The flood wall closure with tide gate crossing measure met all screening criteria and was retained. The levee measure (construct new levees along Artesian Slough) met all of the screening criteria but was eliminated because it is less economically efficient than the tide gate measure and did not provide any additional advantages relative to the other criteria. A flood wall across the slough would provide an equal level of flood risk management at a lower cost than the new levees along Artesian Slough. With or without a flood wall/tide gate closure, the Wastewater Facility would have to deal with sea level change in their discharge operations. In an effort to best meet the general operation requirements for the Wastewater Facility and allow for discharge during storms, the tide gate will be designed in coordination with Wastewater Facility engineers. It is assumed that the tide gate would have staged elevation relief points to minimize impacts to the treatment plant operation. Additionally, the proposed location of the tide gate for all alignment options would be at least 300 feet bayward of the existing Wastewater Facility outfall for treated water at Artesian Slough (see Figure 3.5-2 Potential Artesian Slough Crossing). Water Board staff encourage the Project team to conduct further analysis of the Artesian Slough crossing. The Project's preferred flood wall closure with tide gates may provide additional permitting complexity, as well as operational complexity, for this element of the Project. The infrastructure associated with a tide gate will place fill in waters of the State, which will require mitigation. And the placement of a barrier across Artesian Slough, about 300 feet Bayward of the WPCP effluent pipe, may complicate the WPCP's compliance with its NPDES permit. The current NPDES permit limits the amount of treated water that may be discharged to Artesian Slough; this limitation is necessary to minimize the tendency of the effluent stream to convert tidal marshes to brackish or fresh water marshes. Obstructions in the slough may alter the salinity regimes in the slough and require modifications to the WPCP's NPDES permit. In most of the F/EIS/EIR, the discussion of the tide gates states that they would only be closed in responses to imminent flood events, but in Section 4.6.2.3.2, a reference is made to seasonal closing of the tide gates. Extended periods of tide gate closure will impact salinity regimes in the slough and may affect the relative distribution of tidal and brackish habitats. Such changes in marsh type may require mitigation. The Project team should provide a	The gate is intended to have "event" and not "seasonal" type closures. In general, the closure would remain in the "open" position until a high water event requiring flood control actions is forecast and/or experienced. The project team is continuing to analyze and refine the design configuration and operations of the proposed closure on Artesian Slough to minimize impacts to the existing tidal flow regime while providing reliable flood risk management. Statements in Section 4.6.2.3.2 have been modified to correctly state when the gate would be closed (i.e. high water events). See Master Response regarding Artesian Slough for a discussion as how that measure was selected.

	more detailed description of tide gate operating protocols so that the full range of impacts associated with the tide gates, as well as any necessary mitigation for such impacts, can be evaluated by Water Board staff.	
027_RWQCB_2-12	Individual Comment 8 A discussion of the level of Federal investment in the proposed ecotone is provided in Section 3.6.5.2. The bench refugia measure met all of the screening criteria and was retained. The 30:1 ecotone met the completeness, effectiveness, and acceptability criteria but did not meet the efficiency criterion because the environmental benefits analysis (CHAP) did not show additional benefits when adding an ecotone to the project relative to the benefits provided by the less-extensive and less-expensive bench transitional habitat measure. The model could not distinguish between two beneficial habitat types, which in this case, tidal habitat is the ideal transition, versus just pond. This outcome is despite the idea that greater areas of transitional habitats provide an opportunity to create tidal marsh habitats that natural sedimentation would not create, because of low pond bottom elevations. As a result of the efficiency analysis, the level of Federal investment was set at the bench refugia measure, and the additional cost of implementing an ecotone would be a non-Federal expense. As is discussed in General Comment 4, Water Board staff is not convinced that the CHAP analysis appropriately assessed the efficiency criterion. The Recovery Plan, which is a federal document, clearly states that ecotones are an essential habitat element to the recovery of California clapper rails and SMHM, as well as the three plants covered by the Recovery Plan. The Project team is encouraged to revisit the screening protocol and use a protocol that reflects the clear guidance provided in the Recovery Plan.	CHAP MODEL SELECTION AND RESULTS The study team examined a number of models for determining ecosystem restoration benefits. To be used in a USACE study, such a model must be able to provide annualized benefits and much have been certified (or otherwise approved for single use) by the USACE Ecosystem Restoration Center of Expertise. Few models fit both criteria, and fewer still were applicable to estuarine habitats in San Francisco Bay. The study team did not consider it practical to develop a new habitat model and obtain certification or approval given the budget and schedule available at the time. The Combined Habitat Assessment Protocols (CHAP) is a habitat evaluation method which builds upon the earlier successes of the US Fish and Wildlife Service Habitat Evaluation Procedures (HEP) and the Northwest Habitat Institute (NHI) Habitat Assessment and Bartering (HAB) method, and which provides annualized habitat units. This method was already being processed for approval or certification on other USACE studies so was considered to be practical for use in this study. It is more sophisticated than the HEP models traditionally used in evaluating the fish and wildlife habitat impacts of federal water resources projects. In general, habitat assessment methods that produce quantified habitat values are essentially accounting systems for summing up fish and wildlife habitat value over time. This sort of approach is required by USACE planning guidance. These models do not directly measure the geomorphic and biochemical functions of wetlands or other habitats. Nor are they able to take a strategic view of fish and wildlife habitat in a landscape context or make subjective judgments of fish and wildlife restoration priorities. This was the case in the analysis of study area habitats by CHAP. The existing ponds, the post-breaching mudflats, and the later tidal marshes all showed high levels of fish and wildlife habitat value under CHAP. The pre-breaching ponds and the later tidal marshes showed the highest values but the differences were not large. Outside of this modeling effort, selection of any of these habitats as a preferred outcome is essentially a subjective decision, albeit one that can be informed by scientific findings. The study started with a goal of restoring tidal habitats so those habitats were preferred. In addition, tidal marsh was favored over tidal mudflats due to greater historic losses and greater current scarcity, so restoration phasing was adjusted during the landscape modeling process to create a better chance of tidal marsh forming prior to the expected period of rapid sea level rise later in the evaluation period. In addition, USACE ecosystem restoration policy favors restoration approaches that are largely self-evolving and self-sustaining after the initial investment. CHAP found slightly lower habitat outputs with an ecotone included in the design. This was due to loss of habitat value for a number of fish species exceeding the gains to marsh wildlife from having better upland refugia available. Again, models of this sort cannot make strategic trade-offs between suites of species. However, USACE policy requires quantified ecosystem benefits from major ecosystem restoration features. Thus, the ecotone was determined to not qualify for federal funding, but was retained as a locally funded feature. The study team also selected the California Rapid Assessment Method (CRAM) for evaluation of the restored areas, in the hope that the focus of this method on wetland functions beyond fish and wildlife habitat would allow it to show the expected value of the ecotone. However, this method was unable to produce annualized benefits. In addition, due to the particular history and pattern of both tidal marsh loss and gain in the San Francisco Estuary, available reference sites tended to be poor analogues for the restoration areas to be created by the study alternatives, thus limiting the predictive value of this method. SINGLE-SPECIES MODELS The RWQCB comments state: "... the unique characteristics of the restoration opportunities in the Alviso Complex Salt Ponds call for a focus on listed species that depend on tidal marshes." The only unique attribute of the Alviso Ponds area with regard to restoration is the degree of subsidence. Nearly all of the shoreline of the South Bay is lacking the historic ecotone, and all the tidal range of the salt marsh harvest mouse in the South Bay has this problem, so the issue raised here is more generally applicable than to just the Alviso Ponds. The study sponsors agree that the recovery of listed tidal marsh species is important and that the proposed project would assist with this goal. However, USACE ecosystem restoration studies are focused on evaluating overall benefits to fish and wildlife habitat rather than benefits to one or a few listed species, except in the case of studies specifically targeted to ameliorating the effect of past USACE projects on specific species such as anadromous fish. One concern raised by the RWQCB is the exclusion of federal funding for the ecotone at the same time that the ecotone is cited as having mitigation value. However, these are different issues. The ecotone did not meet federal criteria for federal funding. However, its inclusion in the proposed plan means that its effects must be considered. The ecotone would not create additional habitat acreage or more wetland habitat in the long term. In fact, in the long term it would slightly reduce jurisdictional wetland habitat (defined by ordinary high water) relative to the bench it would

		replace. However, it would have the benefit of restoring new marsh habitat quickly upon breaching of the ponds, relative to the decades required for breached subsided ponds to form new marsh or the minimal wetland habitat that would be created on edge of the bench. Thus, the ecotone would assist in temporal impact mitigation by replacing relatively rapidly with tidal marshes much of the non-tidal wetland lost due to initial levee construction. The ecotone is probably not the most cost-effective way of providing this temporal mitigation, so this is not a primary argument for building the ecotone. The ecological values of the ecotone are stated in the draft report but the habitat evaluation method did not find these larger than the total fish and wildlife value produced in its absence. Given the results of the CHAP study, the RWQCB has requested that the study sponsors re-examine the value of the ecotone and "use a protocol that reflects the clear guidance provided in the Recovery Plan". While restoring habitat for listed species is one of the study goals, the primary intent of the study sponsors in studying ecosystem restoration for the study area was always to provide broad-based benefits to fish and wildlife. Should the proposed project be forwarded to Congress for possible authorization, Congress will have the opportunity to decide whether to provide federal funding for the ecotone based on its own criteria.
027_RWQCB_2-13	Individual Comment 9 Section 3.9.1.1 of the F/EIS/EIR contains the following text: Mitigation for the loss of wetlands and related impacts to wetland species from construction of the levees would be required if this were a USACE single-purpose flood risk management project. Because the project also includes restoration of managed ponds to tidal marsh, however, and this restoration will provide much more habitat than would be lost to the levee construction, no mitigation is proposed. We are concerned that the approach proposed in this text may pose a significant permitting challenge. For Alternative 3, the Project would place fill into a total of about 137.6 waters of State, consisting of 16.8 acres of wetlands and 120.8 acres of other waters. As noted in General Comments 2 and 3, the mitigation elements of the Project are associated with potentially significant temporal losses in habitat and significant uncertainty related to the availability of sediment for the full restoration of about 2,800 acres of tidal marshes (See Section 3.11.1.1.2 of the F/EIS/EIR). In addition, much of the mitigation is associated with the conversion of one type of water of the State, open waters, into another type of water of the State, tidal marshes. To compensate for the net loss of waters of the State, the Project should demonstrate consistency with the Basin Plan by including closer conformance with the Habitat Goals and the Recovery Plan in the mitigation covered under the federally funded project elements. Also, since some of the mitigation elements are not covered under the federally preferred project, and, therefore, not federally funded, there is additional uncertainty associated with full implementation of all of the Project's mitigation measures.	HABITAT GOALS The Baylands Habitat Goals are in the process of being revised, but the 1999 report states the following under habitat design and management for tidal marsh (pp. 150-151). Quotes from the report are in italics, and notations and responses in roman: The design and management of tidal marsh restoration projects should: • *Assess the salinity regime (including artificial freshwater flows) and tidal range in the area where restoration is planned; there should be congruence between the physical parameters of the area (salinity, tidal range) and the expected habitat structure.* Modeling of landscape evolution post-breaching related salinity and tidal regimes to expected habitat types for the alternatives. • *Provide unrestricted tidal exchange, except where muted conditions are necessary or desired (see Muted Tidal Marsh discussion). Where full tidal exchange is not possible, encourage maximum tidal amplitude.* Breached ponds will have full tidal action. New Chicago Marsh will remain as muted tidal to protect existing marsh values including salt marsh harvest mouse habitat. • *Rely as much as possible on natural sedimentation processes. Natural sedimentation is preferable if adequate sediment supply is available for timely restoration of desired habitat.* Natural sediment will be the only sediment source used for raising pond bottoms to the eventual marsh plain. The ecotone material will be imported since this feature would not form in the require location on its own. The non-federal sponsors will continue to investigate the possibility of importing dredged material to accelerate marsh formation under conditions of rising sea level, but any such proposal would be a separate project requiring separate permits at a later date. • *Utilize remnant natural channels (if present) as the template for channel formation. Fill borrow ditches when possible to keep them from capturing tidal circulation.* Remnant natural channels will be reconnected to restore drainage patterns, and ditch blocks will restrain tidal action in borrow ditches. • *Provide topographic variation to mimic natural conditions within the marsh. Provide small supratidal islands, at or slightly above MHHW, by leaving remnant levees or placing fill at appropriate elevations.* When levees are graded down, remnants will be left as isolated islands to provide refugial habitat. • *Grade unneeded levees to marsh elevations (at or slightly above MHHW) when restoring diked baylands. Levee remnants will continue to reduce erosion and to provide high-tide roosting habitat, while discouraging predator access and invasion by weedy species.* This will be done. • *Design levees, where required as part of the restoration, to mimic naturally occurring transition zones (the slope should be as flat as possible).* The slope for the ecotone will be 30:1. • *Provide for ongoing control of undesirable species including non-native invasive plants, undesirable predators, and mosquitoes. In the case of smooth cordgrass, undertake control as part of pre-construction.* This is currently occurring on the refuge and will be done on Pond A18 as well. • *Rely in most instances on natural colonization by plants; however, there are some rare plant species that need to be reintroduced.* Planting of the transition zone and upland is expected, to accelerate restoration and discourage exotics, but lower areas will naturally colonize. • *Provide broad corridors (300 feet or wider) to connect neighboring marshes, except when the*

		marshes are very small. The ecotone will be over 300 feet wide, though not all the width will be marsh. As the ponds fill in with marsh, they will link together existing fringe and pocket marshes in the area and greatly increase local habitat connectivity. *• Wherever possible, restore tidal marshes on sites that are contiguous with uplands and alluvial soils, seeps, and streams to facilitate establishment of natural transitions.* The restoration site is contiguous with Alviso Slough and with the Coyote Creek bypass. It was not feasible to link to natural upland areas, so the ecotone provides a substitute. *• Provide a buffer at least 300 feet wide between the upper edge of the marsh/upland transition and neighboring areas of developed use.* This was done where feasible, in the area of New Chicago Marsh. Farther east, options were severely constrained due to the adjacent San Jose-Santa Clara wastewater treatment plant. However, the legacy and operational lagoons on the plant site involve minimal human intrusion and disturbance. To sum up, the LPP incorporates all these features. RECOVERY PLAN Quotes from the report are in italics, and notations and responses in roman. The LPP is compatible with the recovery criteria in Table III-3, Guadalupe Slough-Warm Springs marsh complex: *Minimum acreage: 1,111 ac for Ridgway's rail and Minimum acreage: 1,000 ac, 1 VHA, 75% of VHAs with CE of 5.0 or greater.* Text from page 179 describing VHAs: *VHAs for the salt marsh harvest mouse in the Central/Southern San Francisco Bay Recovery Unit, and San Pablo Bay Recovery Unit are defined as well-developed tidal marshes with the following specific features: 1) extensive Sarcocornia (pickleweed) on a mid to high marsh plain 200 meters (219 yds) or more deep (from shore to bay); 2) adjacent wide high marsh transition zone, wherever possible, that acts as a refugium for the mice during the highest tides with sufficient area and cover to minimize predation risks and; 3) stands of Grindelia (and in San Pablo Bay area, Schoenoplectus spp.) or tall forms of Sarcocornia, interspersed among shorter forms of Sarcocornia to provide additional high tide refugia within the marsh and away from the upland edge....* This describes the eventual condition of the restoration area. *All VHAs within each marsh complex must be 150 acres or more, the minimum acreage thought to sustain a healthy mouse population (Shellhammer in litt. 2005). The VHAs must be connected by corridors broad and complex enough to allow the interconnected VHAs to function as one large population over time; however, these corridors will not be counted in the total marsh complex acreage, unless they are fringing marshes 500 feet deep or deeper, have a high marsh transition zone, and have substantial escape cover, both in the middle and high marsh zones.* The alternatives would fill in gaps between existing marshes; there are no more gaps to be filled within our current study area unless we Pond A16 were converted into marsh. CE refers to capture efficiency of mice which is a consequence of successful restoration, not a design feature. The LPP is compatible with the recovery map (Figure III-22, Segment P) on page 274 of the plan. FEDERAL FUNDING See response to comment 2.
027_RWQCB_2-14	Individual Comment 10 Section 4.4.3 of the F/EIS/EIR discusses potential mitigation measures for the potential impacts of Project-related scour on the Union Pacific Railroad bridge crossing of Coyote Creek. Proposed measures include the following: • Modify the bridge structure, such as by constructing new pilings and underpinnings, to accommodate the scour. • Place rock armoring across the channel for some distance upstream and/or downstream of the bridge to limit scour at the bridge supports and approaches. • Place rock armor along the bed and banks of the channel at the bridge and along the bed and railway embankment on both sides of the bridge to limit scour. Water Board staff would like to point out that all of these proposed measures involve the placement of fill in waters of the State and would require permits from the Water Board and appropriate mitigation. Also, the Water Board does not usually allow armoring that extends from bank to bank across a channel.	The project team is aware of the required permitting, and of the limitations of the proposed measures. The team will continue coordination with the Water Board as future design analyses allows for refinements to any erosion protection recommendations.
027_RWQCB_2-15	Individual Comment 11The Basin Plan, which was developed under the authority of the State's Porter-Cologne Water Quality Control Act, should be added to Table 4.6-1, Regulations and Programs That Apply to Aquatic Biological Resources. In the Basin Plan, waters and wetlands in the South San Francisco Bay have been assigned beneficial uses that include estuarine habitat, fish migration, fish spawning, wildlife habitat, and the preservation of rare and endangered species.	Your comment is acknowledged. The Basin Plan was briefly mentioned in discussion under the Porter-Cologne Water Quality Control Act block, but the following was added to Table 4.6-1 within the Porter-Cologne discussion to expand per your recommendation: "Per the Basin Plan, developed under the authority of the Porter-Cologne Water Quality Control Act, waters and wetlands in the South SF Bay have been assigned beneficial uses that include estuarine habitat, fish migration, fish spawning, wildlife habitat, and the preservation of rare and endangered species."

027_RWQCB_2-16	Individual Comment 12Section 4.6.2.2 includes the following text:Impact ABR-1: Have a substantial adverse effect, either directly or through habitat modifications on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW, or the USFWS; a substantial adverse effect includes an impact that would jeopardize the continued existence of a species listed under the FESA and/or cause substantial adverse effects to EFH; or substantially interfere with the movement of any native resident or migratory fish Please add the National Marine Fisheries Service (NMFS) to the species agencies in this impact discussion. NMFS addresses impacts to EFH and to anadromous fish species (e.g., steelhead and salmon).	Your comment is acknowledged and the text in Section 4.6.2.2, Impact ABR-1 has been revised to include NMFS as a species agency in the discussion.
027_RWQCB_2-17	Individual Comment 13 Section 4.6.2.3.2, Action Alternatives, includes a discussion of operation of the proposed Artesian Slough tide gate (See Page 4-227). Seasonal or event-based operation of the Artesian Slough tide gate could interfere with the movement of aquatic species into and out of Artesian Slough for feeding and rearing. Negative effects for fish could be attributed primarily to potential entrainment and stranding on the landward side of a closed gate and exclusion from the slough for fish on the bayward side of the gate. These effects could temporarily affect survivability and could alter migratory patterns, foraging behavior, and the availability of prey. Restoring tidal habitats would provide conditions for improving the health of the estuarine ecosystem and would substantially outweigh potential effects of temporary exclusion from or entrainment in Artesian Slough. This is the first time in the F/EIS/EIR that the possibility of “seasonal” rather than “event-based” operation of the tide gate is proposed. As is noted in Section 4.6.2.3.2, seasonal operation would be likely to have impacts to habitat values in Artesian Slough and habitat types in Artesian Slough. The Water Board is likely to require mitigation for those impacts. Event-based operation is also likely to have impacts habitats in the slough, but those impacts are anticipated to be of shorter duration. The text also suggests that tidal marsh habitat enhancement would mitigate the tide gate’s impacts to brackish marsh and open water habitat. As is noted in prior comments, the tidal marsh restoration would be off-site and out-of-kind mitigation for impacts to Artesian Slough. Seasonal operation of the tide gate is also more likely to impact the WPCP’s discharges to Artesian Slough and require modification to the WPCP’s NPDES permit.	The tide gate would be not be operated seasonally. This was a mistake in the Draft EIS/EIR. By using the word seasonal, the extent and frequency of the impacts was over-stated. The word “seasonal” will be deleted from the paragraph cited. The tide gate would only close during rare events such as floods or extreme high tides. Under current conditions, there is sufficient flow out of the RWF’s discharge to keep the gates open the majority of the time and allow movement of aquatic species. During low tide, the tide gate would be open and the water surface elevation in Artesian Slough would reach an equilibrium level with the tidal event, such that the flow through the gate balances the WPCP effluent. During high tide, the gate would only be partially open because the water surface elevation on the downstream side of the gate would be greater than the water surface elevation on the upstream side of the gate, allowing less effluent flow through the gate;(i.e., during high tide some of the WPCP effluent would be stored temporarily in Artesian slough until the tide begins to drop). At a point in the future with the onset of sea level rise, a pump station will likely be required to ensure the WPCP effluent continues to discharge against the tide gate. With a pump station in operation during extreme tidal events, the tide gate will never be closed, since the pump station would assist the discharge of the effluent against the higher tidal pressure under these extreme events. Thus aquatic species would not be entrained or stranded on the landward side of the tide gate. The Shoreline Study is currently working closely with the WPCP in the design of the tide gate. More specific details will be provided when submitting a permit application. It is also important to note that the tide gate would only separate the short uppermost reach of Artesian Slough (not the WPCP effluent channel) from the rest of the slough. As written, the language in the Draft EIS/EIR may suggest that it would interfere with aquatic life movement into or out of the entirety of Artesian Slough, which is incorrect. In addition, given the very limited amount of water present in uppermost Artesian Slough at low tide (restricted to a narrow, shallow channel), upper Artesian Slough is unlikely to be used as an important rearing area for fish. To clarify the tide gate’s operation, and the potential effects of the tide gate, Section 4.6.2.3.2 (Page 4-227) of the EIS/EIR has been revised as follows (strikeout is deleted and underline is added): ~~“Seasonal or e~~Event-based operation of the Artesian Slough tide gate closure system could interfere with the movement of aquatic species into and out of a short reach of uppermost Artesian Slough for feeding ~~and rearing~~. Negative effects for fish could be attributed primarily to potential entrainment ~~and stranding~~ on the landward side of a ~~closed~~ partially opened gate and exclusion from the uppermost reach of the slough for fish on the bayward side of the gate. However, such effects would occur infrequently (i.e., only during very high tides) and would be of short duration, as the gate would become more opened as the tide subsides at the lower portion of the tidal cycle. Thus, it is unlikely that aquatic species would be entrained landward of the gate, or would be precluded from accessing the uppermost portion of Artesian Slough, for more than a single tide cycle. These effects are therefore not expected to ~~could temporarily~~ affect survivability or substantially ~~and could~~ alter migratory patterns, foraging behavior, or ~~and~~ the availability of prey. Restoring tidal habitats would provide conditions for improving the health of the estuarine ecosystem and would substantially outweigh potential effects of temporary exclusion from or entrainment in Artesian Slough.”
027_RWQCB_2-18	Individual Comment 14 The discussion of Ongoing Effects Due to the Presence of Recreation Features on Page 4-229 of Section 4.6.2.3.2 should be expanded to include a discussion of the use of pedestrian bridge railings as perches by avian predators of fish, California clapper rails, and SMHM.	The pedestrian bridge will be designed during the design and engineering phase of the project. The bridge will be required to meet the Refuge’s requirements and will be designed to inhibit avian perching. The EIR/S will be changed as follows to address this comment (underline added, strikeout deleted). *Ongoing Effects Due to Presence of Recreation Features* The proposed pedestrian bridge across Artesian Slough would ~~constitute a new over-water structure~~ be incorporated into the tide gate structure. ~~The bridge height would be designed to accommodate the capacity of the 1-percent ACE flood event. For this reason, there would be no increase in the 1-percent ACE floodwater surface elevation, and~~ Under this case, the bridge would not affect instream hydraulics or measurably modify microhabitats with regard to flow patterns or sediment transport.

		However, should the bridge be an ~~O~~over-water structures, it could have the potential to affect aquatic environments, including changing shading and ambient light in aquatic habitat and, in turn, inducing behavioral responses in fish species and changes in habitat function. Support piles could create hydraulic and physical refuge for piscivorous predators such as striped bass, and this could contribute to increased predation of juvenile fish, including salmonids in ~~Alviso~~ ArtesianSlough. Shade-producing structures can also introduce changes to fish assemblages and distributions and can potentially reduce or modulate the amount of light required by algae or aquatic macrophytes. The extent and intensity of shading caused by over-water structures are dependent on the physical dimensions and orientation of the over-water structure. Light-penetrating structures with a narrower footprint that are located at higher elevations above the water surface produce the least amount of shading (Chmura and Ross 1978; Mulvihill et al. 1980). Because the proposed bridge would be elevated to levee height, effects on aquatic species and habitat due to shading are anticipated to be minor. In addition to shade impacts, bridge-like structures can create avian predator roosts and increase predation of fish, California clapper rails, and SMHM. The pedestrian bridge design will meet the Refuge's requirements and will be designed to inhibit avian perching as much as possible. *Recreation features will have a less than significant long term impact on aquatic resources*.
027_RWQCB_2-19	Individual Comment 15 Page 4-295 of the discussion in Section 4.7.2.4.2.1, Levee Construction Effects, includes the following text. As noted in Table 4.6-8 Post-Construction Tidal Marsh Totals in the Study Area, ecosystem restoration associated with Alternative 3 is expected to result in the creation of 2,783 acres of tidal marsh (assuming the project is implemented as proposed and all ponds are converted). The minor losses of seasonal wetland (saline flat) and muted tidal/diked marsh habitat associated with levee construction effects would be completely offset in the long term by tidal marsh habitat gains associated with the Shoreline Phase I Project. However, it is understood that the immediate direct effect on the habitat would not be mitigated until a later date. Breach of Pond A18 to restore tidal action is scheduled for 2025–2026; creation of fully functioning tidal marsh would depend on natural action and adaptive management, if needed. This process could take many years. Overall, however, this impact would not be significant since the project would not result in a net loss of tidal marsh habitat over time. Impacts on sensitive natural communities, including seasonal wetland and muted tidal/diked marsh habitat as a result of the Alviso North levee segment option would be less than significant. First, we note that the fill of almost 140 acres of waters of the State is not considered a minor loss by the Water Board. The considerable uncertainties associated with the Project's mitigation measures do not support the statement that "losses of seasonal wetland (saline flat) and muted tidal/diked marsh habitat associated with levee construction effects would be completely offset in the long term by tidal marsh habitat gains associated with the Shoreline Phase I Project." As noted in prior comments, there are significant uncertainties associated with the proposed mitigation. The timing of the marsh restoration results in significant temporal losses and the availability of sufficient sediment for tidal marsh restoration at the time of the future salt pond levee breaches cannot be guaranteed. Also, as is noted in the Adaptive Management Plan (Appendix I), it is possible the adaptive management responses may reduce the amount of tidal marsh that is restored by the Project. Therefore, there is considerable uncertainty about the Project's ability to restore 2,783 acres of tidal marsh habitat and about the timing of that restoration. Finally, the lack of federal funding for some of the tidal marsh restoration and all of the ecotone creation adds uncertainty to the full implementation of these Project elements.	We did not mean to imply that 140 acres of fill into waters of the State was a minor issue. The project does not take this amount of fill lightly, but believe it necessary to facilitate a large amount of tidal marsh restoration as well as manifest significant flood risk reduction. Our response regarding your concern over uncertainty about the implementation of restoration is two-fold. In addition to the responses provided to General Comment 2 about the increase in federal cost-sharing for restoration, we are also expediting the amount of tidal marsh to be restored in the first phase. We are now proposing that Ponds A18 and A12 (1,166 acres together) will both be initially restored. You are correct that the restoration of the remaining ponds will still be subject to the Adaptive Management Plan of the South Bay Salt Pond Restoration project. That plan was developed as an attempt to maximize the habitat benefit to the most species by ensuring species depending on the pond habitat are not inadvertently impacted. In addition, it is also prudent to phase the restoration of these ponds in any case, as the issues such as localized channel scour, sedimentation rates, and mercury methylation can all be better monitored. We hope that the increase in federal funding and initial quantity of tidal restoration help to alleviate some of your uncertainty.
027_RWQCB_2-20	Individual Comment 16 Page 4-295 of the discussion in Section 4.7.2.4.2.1, Levee Construction Effects, includes the following text under Impact TBR-2: Loss of SMHM and salt marsh wandering shrew habitat due to construction of the FRM levees would be significant absent the provision for the expansion of restored tidal marsh the FRM levees promotes in adjacent ponds. The project would provide high-quality habitat, which would benefit not only these species but other wetland species. Tidal marsh habitat created through Pond A18 ecosystem restoration would provide more habitat for these species than what would be lost as a result of the levee construction activity habitat impacts. The project, then, would "self-mitigate" for impacts related to the loss of habitat. Although the tidal marsh habitat would not be established immediately, this impact is not considered significant since the project would not result in a net loss of habitat over time. The argument that Project impacts on SMHM would not be significant over time appears to be flawed. The length of time between impacts to SHMH and the full functioning of restored tidal marshes should be compared to the life cycle of the SHMH. It appears likely that the time lapse between impacts and the full functioning of mitigation may exceed the lifespan of a SMHM. Therefore the impact may be significant and not fully mitigated. Mitigation provided for impacts to SMHM could be enhanced by including the construction of ecotones in the federally funded project.	We agree that temporal impacts are important. Still, evaluating these impacts in terms of the lifespan of individual animals is not appropriate since wildlife does not persist for any significant period in the absence of suitable habitat. Given that fact, maintaining temporal continuity of habitat must be a high priority to the extent this is feasible. Several actions will be taken to provide replacement habitat for the SMHM during project construction and the initial restoration period. However, it would not be practical to provide replacement habitat for this species during levee construction. Such habitat will be provided as quickly as reasonably possible through the following measures: *Construction of the ecotone.* Upon completion and restoration of water in adjacent portions of the pond where it is constructed, pickleweed marsh will quickly establish and provide habitat for SMHM. Upon restoration of tidal action, much larger areas of marsh will form on the ecotone. Vegetative cover will be established prior to breaching so SMHM on the ecotone will have cover when faced with tides. *Grading down existing pond levees to approximately MHHW.* This will accomplish several things, including quick establishment of new pickleweed marsh on the lowered surface and reduction in predator access to outboard marshes. With these and other included measures, the LPP is acceptable to the U.S. Fish and Wildlife Service as determined in the Biological Opinion provided by that agency.

027_RWQCB_2-21	Individual Comment 17 The discussion of Impact TBR-4 on page 4-328 includes the following text: To minimize these types of construction-related impacts, the Shoreline Phase I Study includes several avoidance and minimization measures. Work in and adjacent to potential bird nesting habitat would be conducted outside of the avian nesting season to the extent practicable [emphasis added]. Work in these areas that could cause disturbance or direct take (e.g., accidental crushing of individuals or nests) would be limited to the nonbreeding period to the extent practicable [emphasis added] (AMM-TRB-2). This condition would minimize potential impacts on nesting birds. If seasonal avoidance is not possible, preconstruction surveys would be conducted for nesting birds (AMM-TRB-3). If any nesting pond–associated waterbirds are detected in areas that could be disturbed by project related construction activities, project implementation would be delayed or redesigned to minimize potential impacts on actively nesting birds, or other measures may be taken to avoid impacts in consultation with the USFWS and the CDFW. Impacts on population and habitat trends resulting from ecosystem restoration construction activities associated with all alternatives would be less than significant. To better establish the extent to which the proposed mitigation measure would reduce impacts to bird nesting to less than significant levels, please provide the protocol that shall be used to establish the extent practicable for avoidance measures.	In practice on other restoration projects in the area that have very similar constraints, 'to the extent practicable' has meant that construction activities in sensitive areas will be maximized inside the work windows. This must also take into account the appropriate phasing of the construction activities and other constraints such as weather. However, for large scale projects such as these, the temporal impacts of working only within these windows could extend the construction over several more years, with its associated impacts, and delay the benefits of the restoration. Pre-construction surveys have been a very effective way to allow construction to continue, especially in the early and late periods of the work windows, as nesting behavior varies quite a bit inter-annually. If nesting birds are located near construction areas, a FWS-approved buffer will be established around the nest until all birds have fledged in order to avoid imapcts.
027_RWQCB_2-22	Individual Comment 18 The discussion of Transition Habitat on page 4-329, includes the following text: Alternative 3 includes a 30:1 ecotone type of broad, gently sloping transitional habitat along the FRM levee where it abuts Pond A12 and the corner of Pond A13 and Pond A18. The 30:1 ecotone would be constructed on the bay side of the FRM levee, and the slope would encroach about 345 feet into the ponds. Vegetation in the 30:1 transitional habitat area would be limited to nonwoody and semi-woody plants, but would otherwise be lightly managed (such as noxious weed removal) and would not be subject to the USACE policy on levee vegetation. The exception is a 15-foot band adjacent to the exposed levee slope, which would be maintained to USACE levee standards. Since the ecotone is to be constructed independently of the flood control levee, Water Board staff does not understand why it is necessary to lightly manage vegetation on the ecotone and prevent woody vegetation from establishing on the ecotone. If these vegetation restrictions on the ecotone are not lifted, it will be more difficult for Water Board staff to conclude that the overall Project is self-mitigating.	The question of woody vegetation has been coordinated with the Refuge. Due to the need to protect listed species from avian predators which would perch on woody vegetation, this type of vegetation will not be allowed on the ecotone. This is part of the project description utilized for the FWS Biological Opinion for this project.
027_RWQCB_2-23	Individual Comment 19 AMM-HAZ-1 in Section 4.8.2.1 of the F/EIS/EIR states: All sites listed in Table 4.8-1 that are designated as “having HTRW concerns that are not likely to or with the potential to affect future construction” should be avoided for inclusion in this Proposed Project. Moreover, construction will be avoided in all areas where the presence or potential presence of HTRW has been documented previously. Further coordination with the San José–Santa Clara Regional Wastewater Facility will be conducted in order to accurately locate and avoid all areas with HTRW concerns prior to construction. If contaminants in any of these sites consist mostly of fairly inert and immobile chemicals (e.g., metals in soils) it may be acceptable to route levees through these sites. The placement of significant quantities of engineered fill in a permanent flood control structure may be an acceptable method of capping the remaining wastes in place.	More detailed investigation of HTRW concerns will be conducted during design. As much as possible the project seeks to avoid areas with contamination. However, if necessary, the project will consider actions, as suggested, to cap inert and immobile chemicals in either the levee or ecotone areas as one way of managing HTRW materials if this can be done to the satisfaction of state and federal agencies with jurisdiction over hazardous wastes and water quality.
027_RWQCB_2-24	Individual Comment 20 Section 5.5.5, Irreversible and Irretrievable Commitments of Resources (NEPA and CEQA), includes the following text in the third bullet point: Some of the materials used for transitional habitat construction (Pond A12 materials) would come from on-site sources. The majority of the material (transitional habitat fill for A18) would need to be imported, but an agreement between the local project sponsor and the USACE notes that such material would be imported at no cost to the sponsors. For the Proposed Project, if insufficient free fill material to construct the 30:1 ecotone is acquired by proposed construction dates, the transitional habitat would be reduced in size to the 50-foot bench (as included in all other alternatives); in either case there would be no associated investment by the sponsors for transitional habitat material. The possibility that a lack of material could result in Pond A18 being constructed with a 50-foot bench, rather than a 30:1 ecotone, adds an additional level of uncertainty to the Project’s ability to meet its mitigation requirements. This adds further doubt to the Project’s ability to be self mitigating.	The non-Federal sponsor has committed to constructing a 30:1 slope as part of the Shoreline Project and expects to have enough fill to complete the project. The report describes worse-case scenarios because the ecotone is an innovative feature in wetland restoration. If sufficient fill material is not available within the project schedule, the non-Federal sponsor will work with the RWQCB and other agencies to design corrective actions such as extending the construction to increase the period for fill collection or seeking materials from greater distances. In regards to the self-mitigating nature of the project, while it is likely that much of the ecotone slope will quickly convert to tidal salt marsh, it is important to note that was not the principal intent of this feature. The loss of waters of the state is also being offset by using existing levees as borrow sites and, in doing so, grade them down to marsh plain elevations, thus “jumpstarting” marsh creation on a total area of 18.4 acres. The ecotone is primarily meant to provide immediate high-tide refugia for sensitive marsh species, but also to allow for upslope migration of the tidal marsh in the face of sea-level rise, and therefore increase the project’s resilience.
027_RWQCB_2-25	Individual Comment 21 In Chapter 9.0, Findings and Tentatively Selected Plan, Section 9.1 includes the following text: The Tentative NED/NER plan is Alternative 2. It includes levees at the same location as Alternative 3, but with a height tentatively identified at 13.5 feet. The Tentative NED/NER acres of tidal marsh, however, it does not include the 30:1 ecotone that is part of the TSP. Like the TSP, the Tentative NED/NER plan includes a pedestrian bridge over Alviso Slough. It is not clear to Water Board staff why an alternative that does not provide 100-year flood protection over the lifetime of the Project was selected as the Tentative NED/NER. Text in Section 4.4.1.2.2.3, Fluvial Flood Hazards, indicates that, although subsidence in the Alviso area has been slowed since groundwater recharge efforts were initiated in the 1970s, the current rate of subsidence is still being monitored. It may be useful to factor the potential for ongoing subsidence in the Alviso area to impact the level of flood control provided by the current Tentative NED/NER plan. Text on page 4-107 also suggests	The Federal interest in flood risk management projects is based upon identification of the National Economic Development (NED) Plan. The NED Plan is that plan that maximizes net national economic development benefits. Since this study includes both flood risk reduction and ecosystem restoration benefits, the level of federal interest is based upon the NED/NER (National Ecosystem Restoration) Plan, which maximizes both net NED and NER benefits. In the Draft Report, the NED/NER Plan was identified as including a 13.5 foot levee, although the net benefits for a 12.5 foot levee provided similar net benefits. The Final Report will verify and document the NED levee height. Another Locally Preferred Plan (LPP) may be recommended if this plan meets certain qualifications and is approved by the Assistant Secretary of the Army for Civil Works (ASACW). For this project, the LPP that has been requested by the non-federal sponsor includes a levee with a 15.2 foot height, which is higher than the levee height that maximizes net NED benefits. A request to approve recommendation of the LPP rather than the NED/NER Plan for project authorization is currently being processed and will be submitted to the ASA(CW). If the ASA(CW) grants this waiver request, the recommended plan will include a

	that construction dewatering and heavy construction activities could produce further subsidence along the Project alignment. Therefore, higher levees may deserve to be selected as the NED/NER plan.	levee with a height of 15.2 feet. In terms of providing "100-year protection", Corps projects are analyzed and described in terms of their expected performance, not in terms of levels of protection. There is no minimum level of performance or protection or size required for Corps projects. The smaller in size or the lower the level of performance, however, the higher the residual risk. Residual risk must therefore be carefully analyzed and communicated. Departures from the NED plan (or in this case the NED/NER Plan) may be considered options to manage this risk. Documentation requirements for deviation from the NED plan for flood control projects are based primarily on consideration of residual risk. The Feasibility Report fully analyzes and documents residual risk. Further the request for approval to recommend the LPP for project authorization is based substantially on the greater level of risk reduction afforded by the higher levees. Regarding the comment reference to subsidence concerns - the noted statement on page 4-107 is erroneous and has been removed. The short-term nature of construction dewatering will have no measureable impact on long-term subsidence/consolidation processes. Construction dewatering sumps would be surficial and used primarily to remove surface waters entering the excavation from adjacent ponds. Water entering the excavation from very low permeability clays in the levee foundation is anticipated to contribute minimally, if at all, to the dewatering demand during construction.
027_RWQCB_2-26	Individual Comment 22 Section 9.5.1, Cost Allocation of the Tentative NED/NER Plan and TSP, contains the following text: For a single purpose FRM project, there would be some environmental impacts. However, the costs for mitigating for such impacts would be insignificant relative to the overall costs. Further, since the ER component of the multipurpose project provides a significant net gain in ecological outputs, a combined plan would not require mitigation and a determination was made that it is not necessary to allocate any ER related costs to the FRM component of the project The FRM only project would impact about 57 acres of waters of the State. This is a very large impact for a single project. The costs associated with providing sufficient mitigation for such a large impact would be considerable. Recent projects with an order of magnitude lower impacts have had great difficulty in finding sufficient mitigation along the South Bay shoreline. The F/EIS/EIR provides no support for the statement that “the costs for mitigating for such impacts would be insignificant relative to the overall costs.” The F/EIS/EIR should either be revised to provide current mitigation costs for impacts on the order of 57 acres of jurisdictional waters, or the sentence should be deleted from the document. In general, the F/EIS/EIR could be improved if estimated mitigation costs for future levee raising to 13.5 or 15.2 feet had been included in the comparison of alternatives.	Concur. This statement will be removed from the text. However, these impacts would be similar for all levee scales. Further, since the ER component of the multipurpose project provides a significant net gain in ecological outputs, a combined plan would not require mitigation and a determination was made that it is not necessary to allocate any ecosystem restoration related costs to the FRM component of the project. Referenced text will be changed to read: "For a single purpose FRM project, there would be some environmental impacts. However, these impacts would be similar for all levee scales. Further, since the ER component of the multipurpose project provides a significant net gain in ecological outputs, a combined plan would not require mitigation and a determination was made that it is not necessary to allocate any ecosystem restoration related costs to the FRM component of the project."
027_RWQCB_2-27	Individual Comment 23 Section 9.6.5.1, Federal Responsibilities, includes the following text: However, with the passage of the WRRDA 2014 and language in Section 1025 relevant to the Shoreline Study, there may be an opportunity to include the ecosystem restoration of the USFWS lands as part of the NED/NER Plan and TSP, to be cost shared between the USACE and the non-Federal sponsor. Water Board staff encourage the USACE to pursue federal funding of the ecosystem restoration elements of the Project, since full implementation of 2,800 acres of tidal marsh restoration and ecotone restoration are likely to be necessary to provide appropriate mitigation for impacts to waters of the State. Federal funding of all tidal marsh restoration and ecotone construction would also reduce the uncertainties associated with implementation of the Project’s mitigation elements.	The USACE signed implementation guidance for WRRDA 2014, Section 1025 on 26 February 2015, which allows it to recommend a USACE project that includes the implementation of ecosystem restoration on USFWS lands. The Final EIS will be revised to reflect this guidance, and explain the implementation responsibilities of the Federal and non-Federal entities, including schedule, cost/funding, construction, monitoring and adaptive management, and operation and maintenance. This information will be provided in Chapter 9 and summarized in the Executive Summary. The report will recommend USACE cost sharing of the tidal restoration of Ponds A9-15 and A18, but not the ecotone.
027_RWQCB_2-28	Individual Comment 24 Section 9.6.5.3, Views of Non-Federal Sponsors, includes the following text: The LPP is supported by the non-Federal sponsors because it meets local planning objectives, addresses regulatory agency concerns regarding environmental impacts, and allows the project to utilize a free source of fill material to establish transitional habitat. The LPP also eliminates the need to pay flood insurance for the community of Alviso and the surrounding area. Although non-Federal sponsors understand that the feasibility report must indicate that ecosystem restoration or recreation on USFWS lands would be implemented by the USFWS, they support legislation that would include the USFWS actions in the authorized USACE project, thereby allowing the USACE to be funded to implement these actions. The non-Federal sponsors believe that the overall ecosystem restoration effort (on USFWS and non-Federal lands) would be more efficiently and effectively implemented by one Federal agency. Although the USACE could construct the flood risk management levee and restore Pond A18 without the implementation of the USFWS project, the USFWS project could not proceed until the flood risk management levee is built. In addition, although the Pond A18 restoration could occur without first restoring Pond A12, it would be contrary to the landscape evolution modeling effort undertaken to evaluate the order in which the ponds should be restored. This analysis determined that Pond A12 should be opened to tidal flows first because it is the deepest pond in the study area. It would require more sediment than the other ponds to bring the pond bottom up to marsh plain elevations. If the project is to rely on natural processes to deposit sediments in Pond A12, it is critical to open this pond as soon as possible before sea levels change and bay sediments decline as is currently predicted. In addition, there is concern from the non-Federal sponsors that due to the large size of Pond A18 (856 acres) there is a larger risk of adverse impacts to the regional landscape. From the perspective of Adaptive Management, it would be better to open A18 after other ponds in the area have been opened and there has been monitoring data collected. This would provide project managers an opportunity to delay or modify the breaching of Pond A18 if there were	Thank you for your comment. The Water Board’s concern regarding funding is noted.

	any adverse impacts to local sediment supplies, wildlife, or infrastructure detected. Finally, the non-Federal sponsors are concerned that without a single funding stream, and the certainty associated with sufficient funding, both the USACE and USFWS projects are at greater risk. If one agency is funded but not the other, it is more likely that there will be costly project modifications or that some projects will not be able to be constructed at all. Water Board staff shares the concerns of the non-Federal sponsors.	
027_RWQCB_2-29	Individual Comment 25 Appendix X to the F/EIS/EIR contains the Shoreline Phase I 404(b)(1) Analysis. Appendix X is only 16 pages long. For a project with potential direct impacts on the order of 140 acres of waters of the U.S. and many potential indirect impacts, this is a fairly brief analysis. Appendix X reads more like a summary of the alternatives discussion on the body of the F/EIS/EIR than a full alternatives analysis. In addition, the analysis inappropriately attempts to minimize the Project's considerable impacts to jurisdictional waters by expressing them as a percentage of the total acres of waters present within the Alviso Complex ponds in the project vicinity. This is not an acceptable means of assessing the Project's impacts. Impacts that range between 57 and 138 acres of jurisdictional waters cannot be described as "small". Also, as is discussed above, the description of many of the Project's impacts as "short term" is not appropriate, since there will be a considerable lag time between impacts and full functioning of restored tidal marshes, and that lag time may be greater than the life cycles of the California clapper rail and the SMHM.	Concur. A much more detailed draft analysis will be circulated prior to the final NEPA/CEQA document, and a final version will be included in the final NEPA/CEQA document.

From: C/H High <howardhigh1@comcast.net>
Sent: Monday, February 23, 2015 4:58 PM
To: Shoreline Environment SPN
Cc: Florence LaRiviere; Eileen McLaughlin; Ian Wren; Sejal Choksi; Anne Morkill; Buxton, Brenda@SCC; michaelmartin@valleywater.org
Subject: [EXTERNAL] CCCR/Baykeeper comments re Shoreline Study Interim Feasibility Study, DEIS/DEIR
Attachments: cccr-baykeeper comments and attached memoranda.pdf

Dear Mr. Kendall and Mr. DeJager,

Please find attached the comments of CCCR/SF Baykeeper.
We would appreciate acknowledgement of receipt of our comments and ask that we be notified of any additional comment periods or decision documents.

Regards,
Carin High
CCCR

Thomas R. Kendal, Chief
Planning Branch Engineering and Technical Services Division
U.S. rmy Corps of Engineers San Francisco District
1455 Market St. San Francisco, CA 94103
ATTN: William DeJager Environmental Section A
ShorelineEnvironment@usace.army.mil

February 23, 2015

Re: Draft Interim Feasibility Report and Environmental Impact Statement/Report: South San Francisco Bay Shoreline Phase I Study, Santa Clara County, CA

Dear Mr. Kendal,

This responds to the Draft Interim Feasibility Report and Environmental Impact Statement/Report for the South San Francisco Bay Shoreline Phase I Study (DEIS/DEIR), located in Santa Clara County, CA. The Citizens Committee to Complete the Refuge (CCCR) and San Francisco Baykeeper (Baykeeper) thank you for extending the public comment period deadline.

As a general comment, the document combines the U.S. Army Corps of Engineers (Corps) required Interim Feasibility Study for management of flood risk, with the National Environmental Protection Act (NEPA) and California Environmental Quality Act (CEQA) required environmental review for the proposed construction of a flood control levee and accompanying ecosystem restoration proposed in part, to offset the adverse impacts of the flood control levee. While the purported intent of the effort was to reduce duplication and paperwork, the resulting document is unwieldy in its length and the number of attachments the public must wade through in order to develop some understanding of the project and resulting environmental impacts. Information that could significantly inform the public's understanding of the project impacts on the environment are not provided in concise and organized fashion. For example, it would be extremely useful if the figures indicating the proposed levee alignments, conceptual cross-sections of the levees, levees with benches, levees with ecotones, and conceptual plan and cross-section drawings of the railroad tide gate and pedestrian crossings were provided in one section entitled "Project Description." Instead, the reader is left to search throughout the 1,000 page document and nearly 2,000 pages of appendices for this information. Decision-makers, resource and regulatory agencies, and the general public would have been better served by providing the Interim Feasibility Report as an separate addendum to the DEIS/DEIR. 1

Regarding the actual substance of the Interim Feasibility Report and DEIS/DEIR, and compliance with the National Environmental Protection Act (NEPA), please refer to the attached memorandum prepared on behalf of CCCR, by coastal ecologist and botanist, Dr. Peter Baye. Please also refer to the attached memorandum provided Eileen McLaughlin, CCCR Board Member.

Overall the alternatives analysis presented in the DEIS/DEIR is flawed because, it arbitrarily constrains the geographic scope and phasing of the project alternatives, arbitrarily eliminates consideration of several alternatives within this DEIS/DEIR, such as levee set-back alignments through the San Jose Water Pollution Control Plant without providing sufficient rationale or analysis of impacts. The DEIS/DEIR includes many comments regarding the long-term value of proposed habitat restoration components, but fails to apply this criteria when analyzing the benefits or environmental costs of potential levee alignments. The DEIS/DEIR fails to include alternatives other than construction of a massive flood control levee that are proving effective in providing protection against sea level rise, such as incremental sediment lifts or the introductions of subsurface discharges of wastewater through low-gradient levees. 2 3 4

The compensatory mitigation proposed will not reduce the significant adverse impacts of the proposed levee construction on biological resources to a level that is less than significant. Please clarify, succinctly, what involvement the Corps will have in the actual mitigation of habitat loss resulting from the construction of the flood control levee, and what involvement the Corps will have in actual monitoring of habitat mitigation. It appears from the text, that if alternative 3 is selected for the final design, the Corps will construct the 30:1 ecotone in Pond A18, but that USFWS and the Santa Clara Valley Water District would be responsible for the construction of the 30:1 ecotone in Ponds A12 and A13. Is this correct? 5 6

It appears the Corps will only provide its monetary cost share for the actual monitoring of habitat restoration and that the actual monitoring activities will be conducted under the auspices of the South Bay Salt Pond Restoration Project (SBSPRP), is this correct? The DEIS/DEIR also indicates the Corps will only provide its cost share for the 10-year period following the implementation of the various habitat restoration elements, regardless of whether the restoration elements have achieved target success criteria or are trending in the appropriate direction, or not. Please explain why the Corps would not be accountable for a longer period, especially if implementation of adaptive management measures becomes necessary. 7 8

The mitigation measures proposed fail to reduce the significant impacts to federally listed and sensitive species to levels that are less than significant. The DEIS/DEIR notes there may be short term impacts, but concludes that the long-term restoration of the adjacent salt ponds will provide significant habitat to mitigate any short-term losses. Nor does the DEIS/DEIR consider the ramifications of implementation of saltpond restoration itself impacts such as fragmentation of the fringe marsh adjacent to outboard saltpond levees proposed for breaching. The DEIS/DEIR acknowledges there is a possibility that fringe marsh could be subject to erosion following levee breaches, it also acknowledges that these fringe marshes provide important habitat and connectivity for species such as the federally-listed endangered salt marsh harvest mouse. How will the impacts of fragmentation of habitat, and potential isolation of SMHM populations be addressed in the near-term, while we wait for long-term development of connected SMHM habitat within the breached saltponds? This failure to address the consequences of short-term, significant adverse impacts of the proposed levee construction to federally listed and special status species is exemplified by the following excerpt from page 4-303 of the document: 9

> Since the Shoreline Phase I Project would result in a net increase in the amount of tidal marsh in the study area, in the long term, this increase would balance the impact of fill and fragmentation of any alternative, including the 46.2 acres of habitat directly lost as a result of the Alviso Railroad Spur levee segment. Table 4.6-7 *Post-Restoration Conditions in the Study Area* shows the maximum amounts of tidal marsh habitat that would be created through ecosystem restoration. The tidal marsh habitat created through Pond A18 ecosystem restoration would provide more marsh habitat than what would be lost as a result of the levee construction activity habitat impacts. The project, then, would "self-mitigate" for impacts related to the loss of marsh habitat.

> Although the tidal marsh habitat would not be established immediately, this impact is not considered significant since the project would not result in a net loss of marsh habitat over time. [emphasis added]

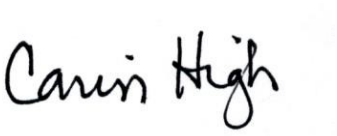
There is no scientific rationale provided to justify such a conclusion. If the project will "fragment habitat," especially for less mobile species (on a geographic scale, e.g. SMHM), and "tidal marsh habitat would not be established immediately" how could this impact not be considered significant?! It is indeed a potentially significant and adverse impact and mitigation measures must be proposed to counter fragmentation of habitat and isolation of populations. 9

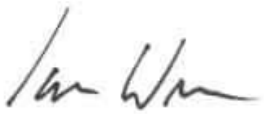
The DEIS/DEIR fails to comply with the requirements of NEPA and has not demonstrated that the significant adverse impacts to biological resources can be reduced to levels that are less than significant. 10

The DEIS/DEIR should be revised and re-circulated as a stand-alone document separate from the Corps' Interim Feasibility Report. 11

Thank you for the opportunity to provide comments. We asked that we be notified of any additional comment periods or decision documents.

Sincerely,





Carin High, Vice-Chair
Citizens Committee to Complete the Refuge

Ian Wren, Staff Scientist
San Francisco Baykeeper

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cc: Anne Morkill, USFWS
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M E M O R A N D U M

To: Citizen's Committee to Complete the Refuge (attention: Carin High, Florence LaRiviere
Date: February 23, 2015

SUBJECT: Critical review comments on USACE **Draft Interim Feasibility Report and Environmental Impact Statement / Report South San Francisco Bay Shoreline Phase I, Study Santa Clara County, CA (2014)**

As you requested, I have reviewed the USACE draft interim Feasibility Report (FR) and Environmental Impact Statement (EIS) in terms of NEPA compliance adequacy and substantive wetland conservation and restoration planning. My comments are below, focused on alternatives (geographic scope, range of alternatives, screening and elimination of alternatives not considered in detail, defects in alternatives analysis) and omission of appropriate mitigation or alternative components.

1. **Geographic scope and phasing of project alternatives.**

The geographic scope of the range of alternatives needs to consider the relationship between project area and whole project area, in terms of alternatives and appropriate mitigation among project segments within the larger project, as shown in Figure 1.4-1. South San Francisco Bay Shoreline Interim Feasibility Study Areas) and Figure 1.4-2. The segmentation of the project to "streamline" it into piecemeal components, as a matter of expedience, does not relieve a NEPA lead agency of the obligation to consider impacts, mitigation, and alternatives that integrate the whole project, if environmental benefits may be gained. The reasons for segmentation give in the FR-EIS are limited to pragmatic considerations that do not constrain the scope of mitigation or alternatives:

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> The District and non-Federal sponsors agreed that streamlining the study area to a reduced footprint would provide a *more timely* planning and implementation process. Early without-project flood risk analysis identified four of 14 USACE South Bay EIAs (Figure 1.4-3 South San Francisco Bay USACE Economic Impact Areas) that showed the greatest potential for future flood risk: EIAs 2 and 3 (Palo Alto area), EIA 7 (Sunnyvale area), and EIA 11 (Alviso area). The study partners decided to *limit the geographic boundaries of the revised study* area to EIA 11 for the following reasons on p. S-5:

1. There are a number of *recent research studies and environmental documents available* on the Alviso area, and these studies and documents were expected to greatly reduce study time and provide necessary tools for analyses.

2. The Alviso and Palo Alto areas both exhibit *high future flood risk to public safety*. However, the Palo Alto area could be covered under the ongoing San Francisquito Creek General Investigation Study, whose geographic scope overlaps that of the Shoreline Study.

3. The *bottom elevations of the Alviso ponds are generally lower* than other complexes around the bay due to subsidence from historical groundwater withdrawals. South of the ponds, extensive areas of urban development are protected by levees that were not originally built for flood risk management, allowing for substantial long-term flood risks.

4. Addressing flood risk in the Alviso area would also *allow for potential restoration* of close to 3,000 acres of former solar salt production ponds, whereas the *other three candidate EIAs do not include potential restoration actions*. These former salt ponds represented a major opportunity for restoration of tidal habitats in San Francisco Bay along with associated ecological functions and habitat for Threatened and Endangered species.

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But because the Shoreline Phase I Study and the SBSPRP will be implemented as separate projects, "each having its own independent utility and neither dependent on the other to achieve their purpose and need, as defined in separate environmental review processes…", the FR-EIS cannot exclude from a "reasonable range of alternatives" off-site mitigation for project impacts elsewhere in the SBSPRP simply because candidate EIS do not currently include potential (tidal marsh) restoration areas – particularly given the adaptive management provisions of the SBSPRP.

The fact that the FS-EIS affirms its independent utility and independence from the SBSBRP to achieve its own purpose and need is no barrier to considering reasonable alternatives that integrate both projects within the larger Shoreline Study boundaries where they are potentially compatible and mutually modifiable. The FR-EIS must identify potential time-sensitive (*i.e.*, sea level rise curve-sensitive, sedimentation rate/elevation sensitive) opportunities lost or gained within the larger project area, as a result of allocating resources and planning or construction priorities to the Phase 1 study area. There should be a stepwise, hierarchical application of the kind of "geomorphic risk and opportunity" analysis evident in Appendix C (ESA-PWA 2012) extended to the larger project area as a whole. Otherwise, the selection of Phase 1 as a priority area will lack any basis in NEPA, and the range of reasonable alternatives considered for Phase 1 be deficient.

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2. **Range of reasonable alternatives**. The range of alternatives evaluated in detail in the FR-EIS falls short of a reasonable range under NEPA. This deficiency is due to improper elimination of some potentially feasible and environmentally beneficial or even preferable alternatives due to invalid or unsound elimination procedures (screening criteria). The FR-EIS does not consistently distinguish between alternatives that are simply not the agency's preferred alternative based on lead agency consensus or policy selection criteria (CEQ guidance, Fed Register 46 No. 55 p. 18027, 4a) from alternatives that are not within the range of "reasonable alternatives", including those not necessarily in the jurisdiction of the lead agency (*op. cit.* 2b). In other words, the EIS fails to provide adequate, reasonable accounts of why alternatives that fail one or more agency policy, preference, or "feasibility" criteria (including agency-specific policy criteria narrower than the "reasonableness" criteria of NEPA.

2.1. **Missing information and arbitrary elimination of the WCPC levee alignment**. The FR-EIS treats deficient information as a reason for eliminating from detailed analysis any alternatives involving levee set-back alignments through the wastewater facility. This is not reasonable if there are potentially significant environmental benefits at stake. If there are potential environmental benefits to set-back levee alternatives though oxidation ponds, for example, then the appropriate NEPA lead agency action (or obligation) is to develop that information or assess risks in its absence. The invalid rationalization for screening out wastewater facility footprint alternatives is given on page S-22 of the FR-EIS:

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> Because of the limited availability of public information regarding the Wastewater Facility drying ponds (e.g., hazardous materials), as well as remaining uncertainty regarding the City of San José's future plans for the area, the footprints crossing the Wastewater Facility drying beds were eliminated from consideration prior to USACE's economic analysis of flood risk management options. No further discussion of these alignments is included in this document. (FR-EIS p. S-22)
>
> Because of the *limited availability of public information* regarding the Wastewater Facility drying ponds (e.g., hazardous materials), as well as remaining *uncertainty* regarding the City of San José's future plans for the area, the *footprints crossing the Wastewater Facility drying beds were eliminated from consideration prior to the USACE's economic analysis* of flood risk management options. *No further discussion of these alignments is included in this document*. As the Wastewater Facility Master Planning effort proceeds into design, there may be further opportunity to revisit the alignment section.(FR-EIS p. 3-18)

First, the mere fact that the drying beds were eliminated from analysis prior to the USACE NEPA alternatives review provides in itself absolutely NEPA justification for their continued and ongoing exclusion from NEPA alternatives, especially given the potential for non-jurisdictional Section 404 fill in wastewater facility lands. USACE as a NEPA lead agency must explain the reason why this location is not within a reasonable range of

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alternatives; instead, it merely stated why some other (non-NEPA) agency removed it from the candidate list prior to USACE NEPA review. Indeed, the statement that there may be further opportunity to consider this alignment when planning efforts by another agency "proceeds further into design" begs the question why it can't be done for this EIS, and indicates that missing environmental background information is reasonably obtainable, or was during the EIS draft process for the Shoreline Study.

Second, the nature of the lack of "public" information about this publicly owned and state/federally regulated wastewater facility is both bizarre and unexplained in an EIS. Public infrastructure must be presumed to be open to public information, given due diligence and reasonable effort of a NEPA lead agency. The purpose of an EIS is to provide such information pertinent to significant potential impacts and formulation of environmentally preferable alternatives. Missing information is in itself no justification for excluding a potentially environmentally benign or preferable alternative from analysis. It should be no barrier to environmental analysis if it is pivotal to comparison of otherwise reasonable alternative project alignments with potential for significantly greater long-term environmental benefits; indeed, it would be justified to actively seek missing information or assess risks and potentially feasible mitigation in absence of adequate information. Fed Reg. 46 No 55 Mar 23 1981 p. 18031.

14

2.2. "**Community acceptability" criteria and Alviso South levee alignment (Alternative 5)**. The FR-EIS inconsistently applies "community acceptability" feasibility criteria in a way that arbitrarily eliminates some alternative designs that are reasonable and environmentally advantageous. The FR-EIS invokes "Principles and Guidelines for Water and Land Related Resources Implementation Studies (P&G) criteria (FS-EIS p. S-23: completeness, effectiveness, efficiency, and acceptability)" as feasibility criteria. The latter "acceptability" criterion cannot be applied to a NEPA analysis of a "reasonable" range of alternatives because a stand-alone agency "*acceptability*" criterion that, in contrast with "completeness", "effectiveness", or "efficiency", is not *per se* an objective, and may be based on undisclosed purely arbitrary or political considerations unrelated to other environmental consequences and priorities. For example, the Alviso South levee alignment's elimination from NEPA alternatives identified as preferred or environmentally preferable appears to have no environmental justification in the FS-EIS other than unacceptability to representatives the local community (FS-EIS p. 3-81). "Alternative 5, which includes the Alviso South levee alignment**, *is acceptable* from the Federal perspective** (FR-EIS, p. 3-78). Yet the FR-EIS also states that alternatives other than Alternative 3 were other alternatives were "not supported by the **non-Federal** sponsor for the following reasons":

15

> "Alternative 5, which includes the Alviso South levee alignment, is ***not acceptable to the local community*** *because of its proximity to residential and commercial properties*. The community of Alviso would ***prefer*** a levee alignment that is as far away from residences as possible. The community therefore

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> **prefers** the Alviso North or the Alviso Railroad Spur levee alignments to the Alviso South option, which is adjacent to the community (Table 3.10-3). In this respect, the Alviso North and Alviso Railroad Spur levee alignments were more acceptable than the Alviso South alignment. FR-EIS p. 3-81.

The FR-EIS overall, however, **rejects the Alviso South levee alignment, along with the rest of Alternative** 5, amid contradictions between federal and non-federal (non-NEPA) criteria without reconciling them as stand-alone NEPA conclusions. In effect, the FR-EIS allows the non-federal considerations to veto a valid NEPA alternative, but with no NEPA justification to do so. Even though the FR-EIS states that the Alviso South alignment *is* acceptable from a federal perspective on p. 3-78, it **cites only local community opposition** (and without adequate documentation) as the reason for rejecting Alternative 5 on page 3-81 in stand-alone discussion of Alternative 5, with no reference to wetland impacts or benefits for Alternative 5. Yet in discussion of the LEDPA (Least Environmentally Damaging Practicable Alternative, a Clean Water Act Section 404(b)(1) environmental criterion, compatible in many respects with NEPA, though more restrictive) on page 3-81, however, the FR-EIS states in discussion of Alternative 4 that "Alternatives 4 ***and 5 would have*** **increased** ***impacts to wetlands*** *and other waters of the U.S. (relative to other alternatives)* ***because of the levee alignment through New Chicago Marsh*****,** with no offsetting improvements in aquatic resources", without reference to the local Alviso community preference. This conclusion, however appears to be inconsistent with following argument, also on p. 3-81, "Because of recent upgrades to the managed flows into and out of the NCM footprint, the Alvi**so North** ***and Alviso South alignment options are anticipated to have fewer impacts on aquatic and terrestrial biological resources*****"**, since Alternative 5 explicitly includes the Alviso South alignment. In any case, there is no valid reason given in the FR-EIS for throwing the Alviso South alignment "baby" out with the Alternative 5 "bathwater". 15

The result of the alternatives discussion regarding Alviso South alignment appears to be rejection of the Alviso South alignment along with Alternative 5, amid unresolved inconsistent arguments about wetland impacts, and a split federal-nonfederal "acceptability" decision that in effect gives non-federal considerations a veto over federal, without any reasonable explanation.

Even if the inconsistencies were reconciled with additional information, this reasoning about the "fatal flaw" for the Alviso South component of Alternative 5 is itself flawed because it fails to distinguish between potentially harmful (fill impacts) and long-term wetland resilience and restoration benefits of fill for a gradual terrestrial ecotone/levee slope. As sea level rise accelerates, New Chicago Marsh itself will be subject to increasing risk of vegetation canopy submergence and mass flooding mortality of federally listed salt marsh harvest mouse populations during episodes of drainage failure. Selective placement of at least some fill designed as flood refuge (restoration) will be as essential to the long-term sustainability of NCM as a diked nontidal salt marsh as it would be for a tidal marsh subject

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to submergence. The Alviso South alignment could potentially improve long-term habitat resilience of NCM (despite short-term fill impacts) if designed properly for flood refuge habitat and interim mitigation. Thus, there is no reasonable NEPA explanation for eliminating the Alviso South alignment from either a (federal) agency's preferred or environmentally preferable alternative.

The FR-EIR appears to arbitrarily weigh the "community support' criterion above all NEPA environmental considerations, such as comparison of wetland, wildlife, water quality, and erosion risk mitigation against alternative alignments, *without any reasonable explanation.* Moreover, the statement of "community support" **as a planning goal** on page S-15 is limited to "…provide opportunities for **public access, education, and recreation** in the Study Area (California Bay Trail Plan)". Similarly, "**stakeholder perspectives" as stated (S.17.1) does not provide a project policy basis for local preferences trumping national environmental policy**. The planning goal of community support as stated in the FS-EIS does not extend to local popularity /preference of one particular one levee alignment over another if both provide opportunities for public access, education, and recreation. Therefore, reference to "community acceptability" based on purely local community "preference" (over national/NEPA environmental benefits or impacts overall) as a primary or sole reason for eliminating an alternative from rigorous review is arbitrary and inconsistent with the FS-EIS's own statement of project goals. 15

2.5. **Non-structural (relocation) criteria.** The FR-EIS does not adequately explain why non-structural flood management alternatives are not applied to the vast Water Pollution Control Plant that has so much influence on project formulation. The FR-EIS states on p. S-18:

> According to officials from the WPCP, the damage to assets from a flood that at least inundates the underground facilities is estimated to total more than $250 million. This does not include the impacts and costs to health and human safety and the environment from a release of raw sewage into the bay, the cost of fines imposed by the local and state agencies, nor does it include the impact of a loss of service to homes and businesses in the region.
>
> Given the financial, safety, and environmental impacts of a damaging flood at the plant, it is reasonable to assume that in the absence of a larger Federal project the City of San José would invest in flood risk reduction measures at the plant, which would most likely consist of a ring levee and associated features. To be clear, the City of San José has stated that they do not currently have an alternative plan for reducing flood risk to the plant in the absence of a federally-sponsored levee project. Nonetheless, it is important to consider what the City might do rather than just assume no future action and count all expected flood damage over the period of analysis. A preliminary planning-level estimate of the cost of a ring levee shows the construction would cost $25 million not including real estate. This cost is included in the estimate of the cost of the non-structural alternative as well as the value of the damages reduced for the structural alternatives. See the Economics Appendix for more detail. 16

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The FR-EIS apparently does not evaluate alternatives based on "non-structural" relocation, other than an on-site ring levee in the economic analysis appendix. If, however, the full analysis of environmental benefits and flood risks of relocation were presented, it would be possible to objectively assess the long-term environmental costs and benefits during the entire time-frame of planning (century of sea level rise). The FR-EIS fails to explain why this is not a "reasonable" century-scale alternative (like other alternatives time-frame) pursuant to NEPA, from a federal perspective.

3. Alternatives design and environmental consequences

3.1. **Levee alignments and location-specific long-term environmental consequences for geomorphic and ecological evolution of landscapes**. The potential biological environmental benefits of constructing low-gradient levees as terrestrial ecotones of tidal marshes depends almost entirely on the geomorphic evolution and resilience of wide (fringing or slough system) tidal marsh platforms adjacent to them. Physical benefits of fringing tidal marshes and ecotones for flooding reduction functions (wave attenuation) do not equally depend on configuration of adjacent tidal marsh and broad terrestrial environmental gradients. The geomorphic evolution scenarios rigorously analyzed and evaluated by ESA-PWA (2012) in Appendix C provide a robust and clear assessment of the risks that tidal marshes may fall behind sea level rise, and either stabilize as low marshes (constrained for nesting habitat) or mudflats (no marsh wildlife to benefit from terrestrial ecotones). The circumstances under which high marsh may form and persist to complete the ecotone established by the project levees, are unfortunately tenuous and difficult to predict. This risk is likely to intensify with increasing distance from tidal channel mouths. The risk of tidal marsh "downshifting" (elevation loss due to accretion rates falling behind sea level rise rate) needs mitigation *as part of the project*, to ensure that "complete marsh" (Appendix C, p. 2) ecosystems, not just the dangling levee ecotone half, are the result of the project. One proven method for minimizing the risk that high salt marsh will founder and "downshift" to unsuitably low elevations is to slurry sediment to nourish marsh elevations (see 3.2., next comment). The infrastructure and resource commitments needed for a sediment slurry or water distribution system along the project perimeter should be assessed as part of the alternatives analysis and as mitigation for risks of project long-term performance deficits.

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3.2. **Phased long-term construction and maintenance using sediment slurry marsh sediment nourishment methods of USACE**. The range of alternatives fails to consider a wetland engineering method of sediment nourishment for tidal marsh maintenance that the USACE has helped develop for subsidence-impacted tidal wetlands elsewhere in the U.S.

The application of thin-layer hydraulic slurry deposits of sediment (Ray 2007: **Thin Layer Placement of Dredged Material on Coastal Wetlands: A Review of the Technical and Scientific Literature, USACE ERDC/EL TN-07-1 December 2007**) has been used to incrementally "lift" subsiding marsh elevations successfully in the Gulf Coast in all marsh zones. The Corps is one of the leading expert agencies nationally in applying this method to

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wetland restoration and management, and is well-suited to adapt this method to SF Bay vegetation and habitats.

Since the cooperating and co-lead State agency is one of the primary sources of dredged sediment from flood control channels (a project purpose closely related to the proposed project), and since the flood channel maintenance sediment potentially suitable for tidal marsh sediment nourishment in the South Bay, it is reasonable to consider its applicability for the proposed project instead of routine disposal as waste rather than beneficial re-use. Thin-layer dredged sediment of suitable quality (including sandy silts or sands) could, for example, be used to incrementally raise terrestrial-tidal marsh ecotone slope elevations gradually as sea level rises, and without eliminating shallow burial-tolerant perennial native marsh or grassland vegetation. This would potentially have direct and indirect flood control benefits as well as environmental enhancement, by increasing the wave-attenuating breadth of high-roughness high marsh vegetation at higher intertidal elevations, offsetting sea level rise submergence of high marsh with lowest impact of fill. Instead, all alternatives consider only single-event fill construction, without integrating flood channel maintenance and new low-gradient habitat-levee maintenance. Despite the USACE national authority on this method, there is no reasonable NEPA explanation in the FR-EIS given for omitting or excluding incremental hydraulic sediment addition as part of phased construction or maintenance of the proposed terrestrial ecotones. 18

3.3. **Long-term ecotone maintenance with surface or subsurface irrigation of treated wastewater to buffer marsh salinity and wave energy**. Even though the San Jose wastewater treatment facility is one of the major stakeholders and flood planning for the proposed project, the NEPA alternatives array fails to consider incorporating treated wastewater discharges as a long-term component of tidal marsh and terrestrial ecotone (levee) maintenance and management. Conventional direct discharge of treated wastewater into tidal sloughs eliminates opportunities for landward edges of tidal marshes to "polish" and transform wastewater nutrients and contaminants in a way that enhances their flood control and habitat functions. This is particularly relevant to the segment of the shoreline study adjacent to the WPCP. 19

Non-channelized (overland) surface or subsurface irrigation discharges of treated wastewater (suitable quality) through tidal marsh-terrestrial ecotones of new low-gradient levees would increase vegetation height and density, and partly buffer impacts of future climate-forced hypersalinity in the tidal marsh ecotone. Increased vegetation height and density would enhance both extent and height of high tide flood refuge canopy of vegetation, and increase wave attenuation (reducing total water levels during flood events, minimizing wave runup). Fresh-brackish back-marsh gradients maintained by beneficial re-distribution of treated wastewater should be incorporated in alternatives within the feasible "service area" of the WPCP.

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3.4. **Methylmercury management and mitigation in terrestrial-tidal marsh ecotones.**

Mitigation measures for managing methylmercury in constructed low-gradient levees in the tidal marsh-terrestrial ecotone should include (a) evaluation of minimizing sediment carbon content (soil organic matter) and total mercury in the constructed "cap" of the tidal marsh-terrestrial ecotone; (b) design of suitable surface and subsurface drainage of the constructed levee slope to prevent fluctuating anoxic/oxic soil redox (conducive to sulfur-reducing bacterial activity) in the presence of soil organic matter. The design should anticipate gradual SLR submergence of the lower ecotone slope, and prevent undue generation of methylmercury in depressional topography there in the presence of naturally accreted soil organic matter.

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CITIZENS COMMITTEE TO COMPLETE THE REFUGE

Memorandum

February 23, 2015

To: William DeJager, Environmental Section A, U.S. Army Corps of Engineers, San Francisco District
From: Eileen McLaughlin, Board Member, Citizens Committee to Complete the Refuge
RE: Integrated Document, Draft Interim Feasibility Report and Environmental Impact Statement/Report of the South San Francisco Bay Shoreline Phase I Study

Please consider comments below as part of the public comments of the Citizens Committee to Complete the Refuge (CCCR) about the Integrated Document.

General Observations

As is mentioned in the Integrated Document, CCCR has been active and interested in the subject project since its beginning and first public meeting in 2006. We are aware of and have concern about the extent of time passed and about the local need for Federal funding. But more than anything we are interested in seeing that the project have the best outcomes for flood protection, habitat restoration, and wildlife.

It can be said that the United States is in its earliest phases of constructing protection from sea level rise (SLR) or, as used in the Integrated Document, sea level change (SLC). No, low-lying shoreline of the United States is, to our knowledge, protected from SLR. Meanwhile around the globe there is extensive discussion on methods of SLC protection. Mankind is in a learning mode and so it is in the far South Bay.

Phase I is an early stage SLC project in the American experience and the first levee planned to address SLC along the shores of San Francisco Bay. Questions arise that the Integrated Document has not addressed: Has Phase I assessment overlooked perspectives of the entirety of Shoreline Study Area and thereby focused decisions too narrowly? Might the decisions of Phase I impact options for subsequent Phases in the Shoreline Study Area or related actions in Alameda County? By omission, oversight, or process restriction might certain decisions for Phase I ultimately prove to be unfortunate, irreversible mistakes? 21 22 23

These are the most significant uncertainties of the Phase I Study. In that light, the best decisions are dependent on a thorough, best-of-science and locally-specific analysis. The comments below discuss concerns that the Integrated Document has not met that standard.

Defining the Setting of the Project

The Integrated Document explains[1] that after the 2010 Feasibility Scoping Meeting (FSM), the decision was made to reduce the geographic scope to the Shoreline Phase I Study Area. From many perspectives that was a necessity with which we do not essentially disagree. Nor do we disagree with acting on behalf of the Alviso community and of the critical infrastructure provided by WPCP. We note however that the phasing action split the Study Area into a discrete segment between streams without considering the 24

[1] Integrated Document, S.5.1, p. S-5

entirety of each stream nor the impacts on the opposite shore. As a result the Integrated Document omits consideration of certain questions that are relevant to the entire Shoreline Study Area and may be relevant to future, foreseeable integration of Phase I actions with a system of shoreline levees.

Examples of this concern include:

- Estuarine Setting: In its simplest definition, an estuary is the place where the flow of a river or stream meets the sea's tides. The estuary that is the San Francisco Bay is a place with a vast array of watershed-fed rivers and streams draining to meet the tides, mixing along the Bay's edges at mouths and within intertwined sloughs to dynamically deliver varying salinity, sediment and habitat conditions. It is a place that drains some 40% of the waters of the State of California. As a result, it is a water body in which fluvial and tidal influences are complex and, in impact, inseparable. How does a massive levee fit in with the healthy functioning of an estuary and of its watersheds?

  Estuarine characteristics apply to the entire Shoreline Study Area including Phase I. They also relate to fluvial conveyance all along the length of streams and tributaries of each watershed. Once modern era actions constrained our streams, each stream's mouth took on greater significance for drainage efficiency. Accordingly Phase I actions at and near the mouths of Coyote Creek and the Guadalupe River need to consider potential impacts of a massive levee to fluvial flow and do so on a watershed impact basis, not simply within the boundaries of the Shoreline Study Area. For both streams, there is a long history of significant economic impacts from overtopping events in multiple locations including Alviso and central areas of San Jose. Now these streams face future extreme storms induced by global climate change. The Integrated Document is incomplete and inadequate if it remains unknown as to whether its proposals help or hinder the flow efficiency of these streams. **25**

  Under Planning Constraints[2], the Integrated Document lists: "Do not increase flood risk in developed areas of the Study Area where loss of life and monetary damages may occur." Subsequently, while identifying Management Measures[3], the Integrated Document states: "After the scope was refined to *include only flood risk from tidal sources*, the study team eliminated measures that addressed only fluvial flood risk management." [Ed. note: emphasis added]

  The question is thereby left unconsidered and unanswered: Do Alternatives in the Final Array or Alternatives considered for and eliminated from the Final Array impact, beneficially or negatively, the functionality of either Coyote Creek or the Guadalupe River? We ask that this question be considered and answered.

- Future Shoreline Actions at Alviso Slough and Coyote Creek: All Alternatives in the Final Array depict the same locations for the Alviso and WPCP levee segment terminations, respectively near Alviso Slough and Coyote Creek. We did not find an explanation for those particular terminal points in the ID. **26**

[2] Integrated Document, S.9.1, p. S-16
[3] Integrated Document, S.11.1, p. S-19

A component of Phase I is the tidal flood gate to be installed on Artesian Slough, the only waterway lying fully within the Phase I Study area. This tide gate will link the Alviso and WPCP levee segments. Seeing this component prompts the question: Is there the concept or intent for tide gates to be installed on Alviso Slough and/or Coyote Creek when a SLC levee is built on the other side of the stream? At Alviso Slough that seems quite possible as the Phase I levee, as depicted, could link during Phase II by tide gate with a levee that might border Pond A8.

At Coyote Creek, the terminus is not near a location that would likely align with a SLC levee nearby nor to an existing engineered flood control levee as exists some distance inland. Nor are the lands on the other side of the creek within the Shoreline Study Area. The proposed levee appears to simply end where the existing earthen levee ends.

We wonder how these decisions can be made without knowing the greater context of the entire Shoreline Study. Will tide gates be routinely used to span streams? What impacts will an "orphaned" terminus of a levee have on a stream and lands upstream?

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Concern: Information about the relationships to the entire Shoreline Study Area, the complexity of the local estuarine setting and specific details as discussed here need to be in the Integrated Document.

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San Jose/Santa Clara Regional Wastewater Facility Master Plan and Biosolids Ponds/Beds Alignment.

In multiple locations in the Integrated Document the text mentions the San Jose/Santa Clara Regional Wastewater Facility Master Plan (RWF MP) or alternate references to it as the WPCP Master Plan or Plant Master Plan. Some references refer to it as not yet final while others acknowledge that it was approved in 2013. It was approved. Actions to implement the plan were authorized and are underway.

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Through the Master Plan, the City decided that the lands along Coyote Creek could potentially be used to reduce flood risks and for habitat restoration, possibly in the form of a floodplain directly connecting the creek with Pond A18 and the restoration planned there. This proposal could not occur if any of the Alternatives of the Final Array are built.

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In August 2014, the Santa Clara Valley Water District released a Revised NOP for the South San Francisco Bay Shoreline Phase I Study. Under CEQA[4], an NOP establishes the *existing* environmental condition and baselines for related analyses:

> 15125. ENVIRONMENTAL SETTING
> (a) An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.

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As the approval of the Master Plan and authorization to begin implementation occurred before the Revised NOP, the RWF MP exists as part of the environmental setting and must be integrated into the Phase I Study considerations.

[4] CEQA Guidelines 14 CCR § 15125 Environmental Setting

Unfortunately, in the Executive Summary of the Integrated Document[5], the Phase I Study discusses a preemptive decision regarding a RWF MP Alternative, dropping its biosolids beds/ponds alignment from further discussion:

> "Because of the limited availability of public information regarding the Wastewater Facility drying ponds (e.g., hazardous materials), as well as remaining uncertainty regarding the City of San José's future plans for the area, the footprints crossing the Wastewater Facility drying beds were eliminated from consideration prior to USACE's economic analysis of flood risk management options. No further discussion of these alignments is included in this document. As the Wastewater Facility Master Planning effort proceeds into design, however, there may be further opportunity to revisit the alignment section."

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While the Executive Summary leaves a door slightly open, it limits it to "may be further opportunity" without explaining the conditions or the process by which that could occur within the Integrated Document. For a regional plan where implementation is underway, the Project partners have a responsibility in the Integrated Document to outline the process and steps by which the objective of the RWF MP can possibly be achieved. In addition it should describe and discuss the alignment across the biosolids ponds/drying beds as a known, potential variation of Alternatives in the Final Array.

It is our understanding that during the current Planning phase of the USACE process, the design level proceeds just to the 15% level. In the next phase, Preliminary Engineering and Design, the design advances in increments and changes can be incorporated up to the 60% point. We understand also that Federal funding normally allows for change for up to 20% of the funded project. If these are criteria by which an active, overlapping plan that is moving forward and can achieve its goals and improve Phase I, then it should be detailed for information purposes in the Integrated Document.

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We ask that the Integrated Document expressly inform the public about the potential of and the means by which the RWF MP proposal can be integrated within Phase I.

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Artesian Slough Tide Gate

As a component of Phase I, the flood wall/tide gate structure proposed for Artesian Slough is mentioned frequently throughout the Integrated Document. Unfortunately, these are repetitions of the same information which is remarkable only for the lack of detail. This is a structure proposed for a wildlife tourism and education location virtually adjoining the public facility and parking lot. Annually thousands of tourists visit as do thousands of school kids. This structure will at minimum be very disruptive to the viewing experience especially as the slough is a prime viewing location. The public needs to know what this gate will look like and the Integrated Document doesn't tell us.

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There will be substantial impacts to habitat, wildlife and the slough during construction and restoration. Information is needed about these activities and their impacts.

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The most specific detail provided is that the structure will be >=300' from the outfall. A little map checking makes us wonder about the purpose of providing that datum. The outfall is near Los Esteros Road. 300' downstream would still be a good distance before reaching the A18 levee and much further from the aerating pumps that are in the stream closer to the EEC. The alignment maps all place the Tide

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[5] Integrated Document, S.11.2.3, p. S-22

Gate near the EEC, a location which is nearly 2500' feet downstream of the outfall. In short, the tide gate's location requires a much, much better description.

Adding to that confusion, a great deal of other information is missing about this Tide Gate.

- No graphic representation of the structure.
- No rough structural dimensions
- No description of the extent of permanent intrusion into the slough.
- No specific discussion of the construction methods or duration.
- No presentation of its visual impacts in this tourism and environmental education location.
- No discussion on if and how it may change or cause change to the dual channels of the slough.
- No detail about the associated pedestrian bridge mentioned, presumably to link the levee trail.
- No discussion of Refuge evaluation of the compatibility of this bridge with its wildlife-first policy.

Lacking this information for a high visibility location, members of the public are unable to make informed comments that may be needed to avoid impacts and improve the project. We ask the omitted information be made available in the Integrated Document.

Railroad Tide Gate Pedestrian Bridge

The Partners' presentation at the January public meeting of this project included a photograph of a typical railroad tide gate as proposed in the Integrated Document. Additionally a pedestrian bridge is proposed to cross over that tide gate, described but not pictured. We understand that it has been recommended that a cyclone fencing enclosure be used on the bridge, presumably to assure safety over a railroad crossing.

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The location of the railroad tide gate and pedestrian bridge will connect two sections of the Alviso levee that both lie on Refuge land, providing a prime elevated location for wildlife viewing for tourists or people just enjoying a hike. To be frank, cyclone fencing is just plain ugly. This pedestrian crossing should be safe to people and wildlife, aesthetically attractive and complementary to the uses of the people that cross it. It may also need to comply with Refuge requirements on behalf of wildlife.

Please include these pedestrian bridge recommendations when planning the railroad pedestrian bridge.

We appreciate the opportunity to submit these comments and also the time extension that was provided to do so. Combined, the Integrated Document and Appendices are overwhelming for almost any reader in the public or its agencies, a limiting factor for this writer in terms of topics reviewed.

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ID	Issue Text	Response Text
028_CCCR.SFB_3-1	As a general comment, the document combines the U.S. Army Corps of Engineers (Corps) required Interim Feasibility Study for management of flood risk, with the National Environmental Protection Act (NEPA) and California Environmental Quality Act (CEQA) required environmental review for the proposed construction of a flood control levee and accompanying ecosystem restoration proposed in part, to offset the adverse impacts of the flood control levee. While the purported intent of the effort was to reduce duplication and paperwork, the resulting document is unwieldy in its length and the number of attachments the public must wade through in order to develop some understanding of the project and resulting environmental impacts. Information that could significantly inform the public's understanding of the project impacts on the environment are not provided in concise and organized fashion. For example, it would be extremely useful if the figures indicating the proposed levee alignments, conceptual cross-sections of the levees, levees with benches, levees with ecotones, and conceptual plan and cross-section drawings of the railroad tide gate and pedestrian crossings were provided in one section entitled "Project Description." Instead, the reader is left to search throughout the 1,000 page document and nearly 2,000 pages of appendices for this information. Decision-makers, resource and regulatory agencies, and the general public would have been better served by providing the Interim Feasibility Report as an separate addendum to the DEIS/DEIR.	The USACE's Planning Modernization initiative under its Civil Works Transformation program requires the USACE to develop integrated feasibility reports and NEPA documents. Integrated documents have also been required by USACE South Pacific Division policy since 2010. In order to improve the readability and navigability of the integrated document, the Final report will include an annotated table of contents that provides an overview of the information included in each chapter, and indicates where to find information pertaining to the USACE planning process and NEPA/CEQA process.
028_CCCR.SFB_3-2	Overall the alternatives analysis presented in the DEIS/DEIR is flawed because, it arbitrarily constrains the geographic scope and phasing of the project alternatives, arbitrarily eliminates consideration of several alternatives within this DEIS/DEIR, such as levee set-back alignments through the San Jose Water Pollution Control Plant without providing sufficient rationale or analysis of impacts.	The South San Francisco Shoreline Study Phase I (Shoreline Study) project complies with both NEPA and CEQA prohibitions against 'piecemealing' a project. Lead Agencies have the authority to define a project and its objectives, as long as it passes two tests regarding piecemealing. An Environmental Impact Report (EIR) must include an analysis of future expansion or other actions if (1) it is a reasonably foreseeable consequence of the initial project, and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects. For the Shoreline Study, the implementation of Phase 1 between Coyote Creek and Alviso Slough/Guadalupe River does not require future actions elsewhere to occur and does not restrict future alternatives for other areas in the shoreline footprint. Analysis in the Shoreline Study draft Feasibility Report, Environmental Impact Statement and Environmental Impact Report (Integrated Document) show that the Shoreline Study can occur independently of other potential future projects (or phases) in the broader Shoreline Study area as each of the Economic Impact Areas (EIAs shown on p. 1-10 of the Integrated Document) is hydrologically independent and does not increase flooding potential for adjacent areas. It is also important to note that phasing does not mean that other opportunities will be foregone or lost by starting with a smaller subset of restoration than restoring all the former salt ponds in the Alviso area. The Integrated Document provides multiple reasons for making the Alviso segment of the Shoreline Study the first phase of an on-going project, including protecting a large number of residences, businesses, and public infrastructure; and the Alviso Pond cluster (Ponds A9-15 and A18) provides the largest amount of wetland restoration opportunity when compared to other EIAs. These ponds are also the most subsided and will require the greatest amount of time to restore.
028_CCCR.SFB_3-3	The DEIS/DEIR includes many comments regarding the long-term value of proposed habitat restoration components, but fails to apply this criteria when analyzing the benefits or environmental costs of potential levee alignments.	CEQA-specific and NEPA criteria were used to analyze the benefits and costs of potential levee alignments. Discussions of long-term value of proposed habitat supports the evaluation and conclusions.
028_CCCR.SFB_3-4	The DEIS/DEIR fails to include alternatives other than construction of a massive flood control levee that are proving effective in providing protection against sea level rise, such as incremental sediment lifts or the introductions of subsurface discharges of wastewater through low-gradient levees.	Many non-structural alternatives were considered in the planning process, including wave attenuators and barrier islands, but these types of alternatives were eliminated since they do not reduce risk for modeled future tidal flooding scenarios. See Chapter 3 for a discussion of alternative plan formulation and evaluation. Table 3.4-1 is a list of alternative measures considered in the planning process.
028_CCCR.SFB_3-5	The compensatory mitigation proposed will not reduce the significant adverse impacts of the proposed levee construction on biological resources to a level that is less than significant.	Additional discussion has been added regarding how the ecosystem restoration actions offset the impacts of constructing the FRM levee. Refer also to the responses to RWQCB comments above in 027_RWQCB section.

028_CCCR.SFB_3-6	Please clarify, succinctly, what involvement the Corps will have in the actual mitigation of habitat loss resulting from the construction of the flood control levee, and what involvement the Corps will have in actual monitoring of habitat mitigation. It appears from the text, that if alternative 3 is selected for the final design, the Corps will construct the 30:1 ecotone in Pond A18, but that USFWS and the Santa Clara Valley Water District would be responsible for the construction of the 30:1 ecotone in Ponds A12 and A13. Is this correct?	Implementation guidance for WRRDA 2014, Sec 1025 was signed by the USACE on 26 February 2015, which allows the USACE to recommend USACE implementation of ecosystem restoration actions on USFWS lands. Under the proposed project, the USACE will cost share in the implementation of restoration actions in Ponds A9 - A15 (on USFWS lands) and Pond A18 (owned by City of San Jose). The restoration of Ponds A12 and A18 is intended in part to compensate for habitat loss resulting from the construction of the flood control levee. The non-Federal sponsors (California Coastal Conservancy and Santa Clara Valley Water District) would be responsible for the construction of the 30:1 ecotone in Ponds A12, A13, and A18. The Corps will cost share monitoring and adaptive management associated with meeting ecosystem restoration objectives for up to ten years following completion of each phase of pond breaching. The ten year limit is defined by law (Section 2039 of the Water Resources Development Act of 2007 - Monitoring Ecosystem Restoration). A copy of the implementation guidance for Section 2039 can be accessed here: http://planning.usace.army.mil/toolbox/library/WRDA/wrda07Sec2039a.pdf

028_CCCR.SFB_3-7	It appears the Corps will only provide its monetary cost share for the actual monitoring of habitat restoration and that the actual monitoring activities will be conducted under the auspices of the South Bay Salt Pond Restoration Project (SBSPRP), is this correct?	This is correct. The proposed project will follow the South Bay Salt Pond Restoration Project's adaptive management program and rely on this already-established process to guide the selection of the final mix of habitats. The Shoreline Study monitoring and adaptive management plan included with the integrated feasibility report and EIS/R was written more narrowly, per Corps requirements, to describe activities that can be cost shared by the Corps, namely those that fall within the project footprint and will determine whether the project has met its ecosystem restoration objectives. Other monitoring and adaptive management activities for the proposed project, such as those that occur outside of the project footprint, are associated with meeting permit requirements, are associated with other project purposes (flood risk management and recreation), or are associated with mercury issues will be implemented by the South Bay Salt Pond Restoration Project's adaptive management program.
028_CCCR.SFB_3-8	The DEIS/DEIR also indicates the Corps will only provide its cost share for the 10-year period following the implementation of the various habitat restoration elements, regardless of whether the restoration elements have achieved target success criteria or are trending in the appropriate direction, or not. Please explain why the Corps would not be accountable for a longer period, especially if implementation of adaptive management measures becomes necessary.	The ten year limit of USACE cost sharing is defined by law (Section 2039 of the Water Resources Development Act of 2007 - Monitoring Ecosystem Restoration). Any additional monitoring required beyond ten years would be a non-Federal responsibility. A copy of the implementation guidance for Section 2039 can be accessed here: http://planning.usace.army.mil/toolbox/library/WRDA/wrda07Sec2039a.pdf
028_CCCR.SFB_3-9	The mitigation measures proposed fail to reduce the significant impacts to federally listed and sensitive species to levels that are less than significant. The DEIS/DEIR notes there may be short term impacts, but concludes that the long-term restoration of the adjacent salt ponds will provide significant habitat to mitigate any short-term losses. Nor does the DEIS/DEIR consider the ramifications of implementation of saltpond restoration itself impacts such as fragmentation of the fringe marsh adjacent to outboard saltpond levees proposed for breaching. The DEIS/DEIR acknowledges there is a possibility that fringe marsh could be subject to erosion following levee breaches, it also acknowledges that these fringe marshes provide important habitat and connectivity for species such as the federally-listed endangered salt marsh harvest mouse. How will the impacts of fragmentation of habitat, and potential isolation of SMHM populations be addressed in the near-term, while we wait for long-term development of connected SMHM habitat within the breached saltponds? This failure to address the consequences of short-term, significant adverse impacts of the proposed levee construction to federally listed and special status species is exemplified by the following excerpt from page 4-303 of the document: Since the Shoreline Phase I Project would result in a net increase in the amount of tidal marsh in the study area, in the long term, this increase would balance the impact of fill and fragmentation of any alternative, including the 46.2 acres of habitat directly lost as a result of the Alviso Railroad Spur levee segment. Table 4.6-7 Post- Restoration Conditions in the Study Area shows the maximum amounts of tidal marsh habitat that would be created through ecosystem restoration. The tidal marsh habitat created through Pond A18 ecosystem restoration would provide more marsh habitat than what would be lost as a result of the levee construction activity habitat impacts. The project, then, would “self-mitigate” for impacts related to the loss of marsh habitat. Although the tidal marsh habitat would not be established immediately, this impact is not considered significant since the project would not result in a net loss of marsh habitat over time. [emphasis added] There is no scientific rationale provided to justify such a conclusion. If the project will "fragment habitat," especially for less mobile species (on a geographic scale, e.g. SMHM), and "tidal marsh habitat would not be established immediately" how could this impact not be considered significant?! It is indeed a potentially significant and adverse impact and mitigation measures must be proposed to counter fragmentation of habitat and isolation of populations.	To jumpstart the restoration of tidal marsh, the Project will now open both Ponds A12 and A18 to tides in the first phase of restoration immediately after the construction of the FRM. The ecotone in these ponds will quickly develop tidal marsh on its own in the tidal zone. The portion of the ecotone at the elevation of upper marsh and marsh-upland transition will be planted to accelerate refugia habitat formation. This is expected to create approximately 46 acres of marsh habitat within a year of breaching. The outboard levees of these ponds will be lowered to approximately MHHW as the ponds are breached. This lowered levee surface would be quickly colonized by pickleweed as is expected to provide another 18 acres of habitat. This 64 acres of tidal marsh will provide important habitat and connectivity while the ponds accumulate sediment necessary to transform to a full tidal marsh.
028_CCCR.SFB_3-10	The DEIS/DEIR fails to comply with the requirements of NEPA and has not demonstrated that the significant adverse impacts to biological resources can be reduced to levels that are less than significant.	The EIS provides adequate analysis to show that biological resources will not be adversely affected. The ecosystem restoration portion of the project will restore approximately 2,900 acres of tidal marsh habitat to protect and conserve species. The Biological Opinion agrees that impacts to listed species can be reduced to less than significant.
028_CCCR.SFB_3-11	The DEIS/DEIR should be revised and re-circulated as a stand-alone document separate from the Corps' Interim Feasibility Report.	The USACE's Planning Modernization initiative under its Civil Works Transformation program requires the USACE to develop integrated feasibility reports and NEPA documents. Integrated documents have also been required by USACE South Pacific Division policy since 2010. In order to improve the readability and navigability of the integrated document, the Final report will include an annotated table of contents that provides an overview of the information included in each chapter, and indicates where to find information pertaining to the USACE planning process and NEPA/CEQA process.
028_CCCR.SFB_3-12	1. Geographic scope and phasing of project alternatives. The geographic scope of the range of alternatives needs to consider the relationship between project area and whole project area, in terms of alternatives and appropriate mitigation among project segments within the larger project, as shown in Figure 1.4-1. South San Francisco Bay Shoreline Interim Feasibility Study Areas) and Figure 1.4-2. The segmentation of the project to “streamline” it into piecemeal components, as a matter of expedience, does not relieve a NEPA lead agency of the obligation to consider impacts, mitigation, and alternatives that integrate the whole project, if environmental benefits may be gained. The reasons for segmentation give in the FR-EIS are limited to pragmatic considerations that do not constrain the scope of mitigation or alternatives: The District and non-Federal sponsors agreed that	Lead Agencies have authority and discretion to develop the scope of a project based on objectives that the project is intended to achieve. When determining whether the environmental analysis may include only a portion or earlier phases of an arguably larger project without running afoul of the prohibition of piecemealing, courts have concluded that there is no piecemealing under CEQA when (a) the potential later actions or activities would not be reasonably foreseeable consequences of the limited project and (b) the limited project has independent utility. Similarly, NEPA does not require a federal lead agency to consider other potential activities as a “connected action” when the proposed action in the NEPA document and the other action are independently justified and the other action is not a foreseeable future phase of the proposed action. An EIS or EIR should analyze a reasonable range of alternatives to the proposed action/project but only those alternatives that could feasibly attain most of the basic project objectives while avoiding or substantially lessening

		streamlining the study area to a reduced footprint would provide a more timely planning and implementation process. Early without-project flood risk analysis identified four of 14 USACE South Bay EIAs (Figure 1.4-3 South San Francisco Bay USACE Economic Impact Areas) that showed the greatest potential for future flood risk: EIAs 2 and 3 (Palo Alto area), EIA 7 (Sunnyvale area), and EIA 11 (Alviso area). The study partners decided to limit the geographic boundaries of the revised study area to EIA 11 for the following reasons on p. S-5: 1. There are a number of recent research studies and environmental documents available on the Alviso area, and these studies and documents were expected to greatly reduce study time and provide necessary tools for analyses. 2. The Alviso and Palo Alto areas both exhibit high future flood risk to public safety. However, the Palo Alto area could be covered under the ongoing San Francisquito Creek General Investigation Study, whose geographic scope overlaps that of the Shoreline Study. 3. The bottom elevations of the Alviso ponds are generally lower than other complexes around the bay due to subsidence from historical groundwater withdrawals. South of the ponds, extensive areas of urban development are protected by levees that were not originally built for flood risk management, allowing for substantial long-term flood risks. 4. Addressing flood risk in the Alviso area would also allow for potential restoration of close to 3,000 acres of former solar salt production ponds, whereas the other three candidate EIAs do not include potential restoration actions. These former salt ponds represented a major opportunity for restoration of tidal habitats in San Francisco Bay along with associated ecological functions and habitat for Threatened and Endangered species. But because the Shoreline Phase I Study and the SBSPRP will be implemented as separate projects, “each having its own independent utility and neither dependent on the other to achieve their purpose and need, as defined in separate environmental review processes…”, the FR-EIS cannot exclude from a “reasonable range of alternatives” off-site mitigation for project impacts elsewhere in the SBSPRP simply because candidate EIS do not currently include potential (tidal marsh) restoration areas – particularly given the adaptive management provisions of the SBSPRP. The fact that the FS-EIS affirms its independent utility and independence from the SBSBRP to achieve its own purpose and need is no barrier to considering reasonable alternatives that integrate both projects within the larger Shoreline Study boundaries where they are potentially compatible and mutually modifiable. The FR-EIS must identify potential time-sensitive (i.e., sea level rise curve-sensitive, sedimentation rate/elevation sensitive) opportunities lost or gained within the larger project area, as a result of allocating resources and planning or construction priorities to the Phase 1 study area. There should be a stepwise, hierarchical application of the kind of “geomorphic risk and opportunity” analysis evident in Appendix C (ESA-PWA 2012) extended to the larger project area as a whole. Otherwise, the selection of Phase 1 as a priority area will lack any basis in NEPA, and the range of reasonable alternatives considered for Phase 1 be deficient.	any of the project’s significant effects need to be analyzed. For the Shoreline Study the implementation of Phase 1 between Coyote Creek and Alviso Slough does not require future actions elsewhere to occur and does not restrict future alternatives for other areas in the Shoreline footprint. In addition, the flood management and restoration activities in the Phase 1 area would serve a viable purpose on their own and thus have “independent utility” justifying the separate processing and approval. The selection of the Phase 1 area of the overall Shoreline Project as the proposed action/project is a policy decision of the project partners on how to best utilize available resources based on consideration of areas that need to be addressed more immediately than others and also areas that might achieve the most environmental benefits. The sections of the Shoreline Study Integrated Document cited by the commenter provide multiple reasons for making the Alviso segment of the Shoreline Study the first phase of an on-going project. The Corps’ Feasibility Study considers and prioritizes the Phase 1 area from a flood risk as well as an ecological perspective. The feasibility study indicates that Phase 1 can occur as a priority and independently of other potential future projects (or phases) in the broader Shoreline Study area for several reasons: • Each of the EIA (Economic Impact Areas shown on p. 1-10 of the Integrated Document) is hydrologically independent. Therefore there is little likelihood of increasing flooding potential for adjacent areas. • A phased, adaptive management approach is the best way to prevent impacts to the environment as it gives managers time to correct problems or to hold off on future phases if turns out to be necessary to avoid unintended impacts. Phased implementation is an approach consistent with that of the South Bay Salt Pond Restoration Project (SBSP Restoration Project). • In terms of environmental benefits to be gained, paragraph no. 4 from p. S-5 of the Integrated Document cited by the commenter, points out that the Alviso Pond cluster (Ponds A9-15 and A18) provides the largest amount of wetland restoration opportunity when compared to other EIAs in the Shoreline Study. Since the greatest amount of environmental benefit (not counting flood protection as an environmental benefit) that could be generated by the Shoreline Study is the restoration of former salt ponds to tidal wetlands, it makes sense to focus the project’s restoration efforts initially on the area with the most potential environmental benefit. It is also important to note that while the project phases can be implemented independently, phasing does not mean that other opportunities will be foregone or lost by starting with a smaller subset of restoration than restoring all the former salt ponds in the Alviso area. The development of the Phase 1 project to include the ecosystem restoration components was coordinated with the SBSP Restoration Project and does not preclude the SBSP Restoration Project from proceeding with additional phases of work. During Phase 2 planning of the SBSP Restoration Project, the entire SBSP Restoration Project footprint was considered. As a part of that planning process, the SBSP Restoration Project team worked with FWS and DFW land managers who have an intimate knowledge of the landscape and the ecological value of the SBSP Restoration Project area to consider what were the next set of possible restoration actions in the Alviso, Ravenswood, and Eden Landing Ponds. In Alviso, as part of the Phase 1 of the SBSP Restoration Project, Ponds A6, 16, 17, 19, 20 and 21 were restored or reconfigured, and Ponds A5, 7, 8, and 8S were partially restored. The SBSP Restoration Project Phase 2 planning effort evaluated the remaining ponds in the Alviso Complex in addition to the remaining areas in Ravenswood and Eden Landing. (A Public Draft EIR/S for SBSP Restoration Project Phase 2 projects was released during Summer 2015.) The SBSP Restoration Project assumed during Phase 2 planning that the A9-15 system would be restored by the Shoreline project. These ponds are one of the highest priorities for restoration for the SBSP Restoration Project because they are some of the most deeply subsided ponds in the south bay and will require a greater amount of time to reach marsh plain elevations from natural sedimentation processes. Yet restoration of these ponds is problematic because breaching has the potential to greatly increase the flood risk in the Alviso area. Restoration has to be done in conjunction with addressing the flood risk and it would be extremely challenging for the SBSP Restoration Project to undertake restoration of these ponds and address flood risk with just the existing project partners. Thus, the Shoreline Project Phase 1 Study is consistent with the larger planning effort conducted by SBSP Restoration Project because it allows the SBSP Restoration Project to meet its goal of restoring the Ponds A9-15 sooner while not putting the surrounding community at risk. Once the proposed action/project is defined, the environmental review document (in this case the EIR/EIS) is required to analyze the impacts associated with the project activities and propose feasible mitigation measures to reduce any significant impacts. The commenter is correct that it is necessary to look outside the immediate project boundaries when analyzing impacts on certain resource areas. For example, wildlife and fish move within larger areas and thus, the appropriate environmental analysis may not be limited to the project boundaries. The environmental analysis in Section 4 does this by defining appropriate landscape-scales for the affected environment and environmental consequences. For example, the entire south bay is examined when impacts to protected species are evaluated. Regarding the commenter’s suggestion to identify offsite mitigation for project impacts, there is no need to look beyond the project boundaries for mitigation opportunities to address impacts on wetlands and other waters as all significant impacts can be mitigated on-site with the creation of nearly 3,000 acres of tidal marsh habitat. In addition, there are no off-site mitigation opportunities available to reduce significant impacts from temporary construction noise, cumulative impacts to pond habitat for pond-specialist birds, and the Alviso Salt Ponds Historic Landscape.

028_CCCR.SFB_3-13	2. Range of reasonable alternatives. The range of alternatives evaluated in detail in the FR-EIS falls short of a reasonable range under NEPA. This deficiency is due to improper elimination of some potentially feasible and environmentally beneficial or even preferable alternatives due to invalid or unsound elimination procedures (screening criteria). The FREIS does not consistently distinguish between alternatives that are simply not the agency's preferred alternative based on lead agency consensus or policy selection criteria (CEQ guidance, Fed Register 46 No. 55 p. 18027, 4a) from alternatives that are not within the range of "reasonable alternatives", including those not necessarily in the jurisdiction of the lead agency (op. cit. 2b). In other words, the EIS fails to provide adequate, reasonable accounts of why alternatives that fail one or more agency policy, preference, or "feasibility" criteria (including agency-specific policy criteria narrower than the "reasonableness" criteria of NEPA. 2.1. Missing information and arbitrary elimination of the WCPC levee alignment. The FR-EIS treats deficient information as a reason for eliminating from detailed analysis any alternatives involving levee set-back alignments through the wastewater facility. This is not reasonable if there are potentially significant environmental benefits at stake. If there are potential environmental benefits to set-back levee alternatives though oxidation ponds, for example, then the appropriate NEPA lead agency action (or obligation) is to develop that information or assess risks in its absence. The invalid rationalization for screening out wastewater facility footprint alternatives is given on page S-22 of the FR-EIS: Because of the limited availability of public information regarding the Wastewater Facility drying ponds (e.g., hazardous materials), as well as remaining uncertainty regarding the City of San José's future plans for the area, the footprints crossing the Wastewater Facility drying beds were eliminated from consideration prior to USACE's economic analysis of flood risk management options. No further discussion of these alignments is included in this document. (FR-EIS p. S-22) Because of the limited availability of public information regarding the Wastewater Facility drying ponds (e.g., hazardous materials), as well as remaining uncertainty regarding the City of San José's future plans for the area, the footprints crossing the Wastewater Facility drying beds were eliminated from consideration prior to the USACE's economic analysis of flood risk management options. No further discussion of these alignments is included in this document. As the Wastewater Facility Master Planning effort proceeds into design, there may be further opportunity to revisit the alignment section.(FR-EIS p. 3-18) First, the mere fact that the drying beds were eliminated from analysis prior to the USACE NEPA alternatives review provides in itself absolutely NEPA justification for their continued and ongoing exclusion from NEPA alternatives, especially given the potential for non-jurisdictional Section 404 fill in wastewater facility lands. USACE as a NEPA lead agency must explain the reason why this location is not within a reasonable range of alternatives; instead, it merely stated why some other (non-NEPA) agency removed it from the candidate list prior to USACE NEPA review. Indeed, the statement that there may be further opportunity to consider this alignment when planning efforts by another agency "proceeds further into design" begs the question why it can't be done for this EIS, and indicates that missing environmental background information is reasonably obtainable, or was during the EIS draft process for the Shoreline Study.	The Coyote Creek Alignment Master Response discusses why a levee alignment that would move the last "leg" of the eastern-side of the Pond A18 levee from its northern terminus on the Coyote Creek Flood Protection levee, to a more eastern terminus on the Coyote Creek Flood Protection levee further upstream was eliminated from consideration. An EIR/EIS must describe a reasonable range of alternatives (CEQA Guidelines, section 15126.6(a); 40 C.F.R. 1502.14). The range of alternatives to be analyzed are those that could feasibly attain most of the basic objectives of the project while avoiding or substantially lessening any of the significant effects of the project (CEQA Guidelines, section 15126.6(a)). Among the factors that may be taken into account when evaluating feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can reasonably acquire, control or otherwise have access to the alternative site (CEQA Guidelines, section 15126.6(f)(1)). Similarly, NEPA requires reasonable alternatives that may be feasibly carried out based on technical, economic, environmental, and other factors (see, for example, Sierra Club v. Froehlke, 534 F.2d 1289, 8th Cir. 1976, where flood plain acquisition was found to not be a feasible alternative to building a dam because of excessive cost, local opposition, loss of revenue producing capacity of the land, and loss of local tax base). Alternatives that are speculative are not required to be included in an EIS (see, for example, Seacoast Anti-Pollution League v. Nuclear Regulatory Commission, 598 F.2d 1221, 1st Cir. 1979). The eastern terminus alignment was not carried forward as a feasible alternative for consideration in the Draft EIS/R because San Jose's current plan is to retain the existing sludge lagoons which currently occupy the area needed to implement an eastern terminus alignment. The City of San Jose adopted the Plant Master Plan for the San Jose/Santa Clara Water Pollution Control Plant in November 2013. The Master Plan is a planning document to guide improvements at the plant for the next 30 years, including defining future treatment needs and designating future land use on plant lands. The Master Plan identified a tentative levee alignment which would allow the plant's continuous use of the sludge lagoons for the dewatering treatment process. The eastern terminus alignment would require in the removal of some of the lagoons.
028_CCCR.SFB_3-14	Second, the nature of the lack of "public" information about this publicly owned and state/federally regulated wastewater facility is both bizarre and unexplained in an EIS. Public infrastructure must be presumed to be open to public information, given due diligence and reasonable effort of a NEPA lead agency. The purpose of an EIS is to provide such information pertinent to significant potential impacts and formulation of environmentally preferable alternatives. Missing information is in itself no justification for excluding a potentially environmentally benign or preferable alternative from analysis. It should be no barrier to environmental analysis if it is pivotal to comparison of otherwise reasonable alternative project alignments with potential for significantly greater long-term environmental benefits; indeed, it would be justified to actively seek missing information or assess risks and potentially feasible mitigation in absence of adequate information. Fed Reg. 46 No 55 Mar 23 1981 p. 18031.	We concur with the comment and all reference to lack of public information has been removed from the document. This text was a relic of early draft text when the Regional Wastewater Facility had not yet released a draft or final Plant Master Plan, and related to as yet unreleased planning and designs of the proposed Regional Wastewater Facility footprint more so than to materials that would be available in publicly accessible facility records.

028_CCCR.SFB_3-15	2.2. “Community acceptability” criteria and Alviso South levee alignment (Alternative 5). The FR-EIS inconsistently applies “community acceptability” feasibility criteria in a way that arbitrarily eliminates some alternative designs that are reasonable and environmentally advantageous. The FR-EIS invokes “Principles and Guidelines for Water and Land Related Resources Implementation Studies (P&G) criteria (FS-EIS p. S-23: completeness, effectiveness, efficiency, and acceptability)” as feasibility criteria. The latter “acceptability” criterion cannot be applied to a NEPA analysis of a “reasonable” range of alternatives because a stand-alone agency “acceptability” criterion that, in contrast with “completeness”, “effectiveness”, or “efficiency”, is not per se an objective, and may be based on undisclosed purely arbitrary or political considerations unrelated to other environmental consequences and priorities. For example, the Alviso South levee alignment’s elimination from NEPA alternatives identified as preferred or environmentally preferable appears to have no environmental justification in the FS-EIS other than unacceptability to representatives the local community (FS-EIS p. 3-81). “Alternative 5, which includes the Alviso South levee alignment, is acceptable from the Federal perspective (FR-EIS, p. 3-78). Yet the FR-EIS also states that alternatives other than Alternative 3 were other alternatives were “not supported by the non-Federal sponsor for the following reasons”: “Alternative 5, which includes the Alviso South levee alignment, is not acceptable to the local community because of its proximity to residential and commercial properties. The community of Alviso would prefer a levee alignment that is as far away from residences as possible. The community therefore prefers the Alviso North or the Alviso Railroad Spur levee alignments to the Alviso South option, which is adjacent to the community (Table 3.10-3). In this respect, the Alviso North and Alviso Railroad Spur levee alignments were more acceptable than the Alviso South alignment. FR-EIS p. 3-81. The FR-EIS overall, however, rejects the Alviso South levee alignment, along with the rest of Alternative 5, amid contradictions between federal and non-federal (non-NEPA) criteria without reconciling them as stand-alone NEPA conclusions. In effect, the FR-EIS allows the non-federal considerations to veto a valid NEPA alternative, but with no NEPA justification to do so. Even though the FR-EIS states that the Alviso South alignment is acceptable from a federal perspective on p. 3-78, it cites only local community opposition (and without adequate documentation) as the reason for rejecting Alternative 5 on page 3-81 in stand-alone discussion of Alternative 5, with no reference to wetland impacts or benefits for Alternative 5. Yet in discussion of the LEDPA (Least Environmentally Damaging Practicable Alternative, a Clean Water Act Section 404(b)(1) environmental criterion, compatible in many respects with NEPA, though more restrictive) on page 3-81, however, the FR-EIS states in discussion of Alternative 4 that “Alternatives 4 and 5 would have increased impacts to wetlands and other waters of the U.S. (relative to other alternatives) because of the levee alignment through New Chicago Marsh, with no offsetting improvements in aquatic resources”, without reference to the local Alviso community preference. This conclusion, however appears to be inconsistent with following argument, also on p. 3-81, “Because of recent upgrades to the managed flows into and out of the NCM footprint, the Alviso North and Alviso South alignment options are anticipated to have fewer impacts on aquatic and terrestrial biological resources”, since Alternative 5 explicitly includes the Alviso South alignment. In any case, there is no valid reason given in the FREIS for throwing the Alviso South alignment “baby” out with the Alternative 5 “bathwater”. The result of the alternatives discussion regarding Alviso South alignment appears to be rejection of the Alviso South alignment along with Alternative 5, amid unresolved inconsistent arguments about wetland impacts, and a split federal-nonfederal “acceptability” decision that in effect gives non-federal considerations a veto over federal, without any reasonable explanation. Even if the inconsistencies were reconciled with additional information, this reasoning about the “fatal flaw” for the Alviso South component of Alternative 5 is itself flawed because it fails to distinguish between potentially harmful (fill impacts) and long-term wetland resilience and restoration benefits of fill for a gradual terrestrial ecotone/levee slope. As sea level rise accelerates, New Chicago Marsh itself will be subject to increasing risk of vegetation canopy submergence and mass flooding mortality of federally listed salt marsh harvest mouse populations during episodes of drainage failure. Selective placement of at least some fill designed as flood refuge (restoration) will be as essential to the long-term sustainability of NCM as a diked nontidal salt marsh as it would be for a tidal marsh subject to submergence. The Alviso South alignment could potentially improve long-term habitat resilience of NCM (despite short-term fill impacts) if designed properly for flood refuge habitat and interim mitigation. Thus, there is no reasonable NEPA explanation for eliminating the Alviso South alignment from either a (federal) agency’s preferred or environmentally preferable alternative. The FR-EIR appears to arbitrarily weigh the “community support’ criterion above all NEPA environmental considerations, such as comparison of wetland, wildlife, water quality, and erosion risk mitigation against alternative alignments, without any reasonable explanation. Moreover, the statement of “community support” as a planning goal on page S-15 is limited to “…provide opportunities for public access, education, and recreation in the Study Area (California Bay Trail Plan)”. Similarly, “stakeholder perspectives” as stated (S.17.1) does not provide a project policy basis	We agree that Alternative 5 is a valid NEPA alternative and therefore it was retained and fully analyzed in Chapter 4. Action Alternatives 2 through 5 all meet the Corps’ Principles and Guidelines (P&G) acceptability criterion and were therefore retained and analyzed in Chapter 4. The commenter is correct in stating that the “acceptability” criterion from the P&G relates to consistency with Federal laws, not community or non-Federal acceptability. The use of the term “acceptable” in discussing non-Federal and community preferences was not meant to be in context of P&G criterion for screening. To avoid confusion over use of the term “acceptable”, the Final Report will be revised to use “prefer” or other term instead of “acceptable” when not referring to the P&G criterion. Although community preference is not an environmental criterion for evaluating a project, it is a factor that must be considered when making decisions about project implementation. For this reason, it is important to note the community’s opinion in Chapter 3 as this Chapter provides an overview of the project alternatives. The community objections to Alternative 5 are not documented in writing but have been stated at the August 17, 2011 and June 21, 2012 Alviso Santa Clara County Working Group meetings. This Working Group is a subcommittee of both the SBSP Restoration Project's Stakeholder Forum and the South San Francisco Bay Shoreline Study and Working Group meetings are open to the general public. Alternative 5 was not deemed to be the environmentally preferable alternative under CEQA in Section 5.5.5 or in the 404(b)(1) analysis (Appendix B-10) for several reasons: 1) It results in significant impacts to New Chicago Marsh (20 acres of fill), an amount only exceed by Alternative 4 (22 acres). Because NCM is the largest pickleweed marsh in the area with endangered species habitat, it is considered one of the most sensitive resources in the area. This significant impact is discussed on page 4-311-13 in Chapter 4.7. 2) It results in significant, unavoidable aesthetic impacts with no available mitigation to public views points in Alviso, (see page 4-522 in Chapter 4.12). 3) Alternative 5 does not feature environmental benefits. Due its subsided nature (approximately 75 percent of the marsh lies between the -1 to -3 feet NGVD range and elevations extend as low as -5 feet NGVD) it would be extremely difficult to restore NCM to a tidal salt marsh. Under Alternative 5, with a direct connection to the Bay, the most likely result would be in the site converting to a pond (see discussion of likely futures for NCM page 4-299) and the resulting loss of existing habitat. Thus the greatest potential benefit of Alternative 5, allowing restoration of NCM to tidal salt marsh or brackish marsh, is highly unlikely to ever be realized, leaving only significant negative impacts. 4) It is not consistent with the US FWS’s New Chicago Marsh Water Management Plan because it will not protect NCM from flooding and will overwhelm water management systems (page 4-77 in Chapter 4.3 Land Use and Planning). The statement “Because of recent upgrades to the managed flows into and out of the NCM footprint, the Alviso North and Alviso South alignment options are anticipated to have fewer impacts on aquatic and terrestrial biological resources” was in the context of comparing them to the Alviso Railroad Spur alignment of Alternative 4. Since a new siphon has been installed in NCM, improving its water quality and habitat, the Alviso North or Alviso South levee alignments, setting aside their other advantages or disadvantages, would at least not fragment this enhanced NCM habitat. This paragraph is clarified in the final Integrated Document. The Integrated Document does not allow community preferences to trump environmental considerations. It weighed the environmental impacts with the benefits of the Alviso South levee alignment in Alternative 5 and found it not environmentally preferable. Chapter 3 of the Integrated Document is changed as follows to clarify: Underline added, strike out deleted. [sending in separate email due to formatting being lost here] pp. 3-80-1 Because of recent upgrades to the managed flows into and out of the NCM footprint, a new siphon has been installed in NCM in order to improve water quality and circulation, this marsh no longer depends on a constricted channel for its connection to Bay waters. By either maintaining the siphon or avoiding it, the Alviso North and Alviso South alignment options are anticipated to have fewer impacts on aquatic and terrestrial biological resources when compared to the Alviso Railroad Spur alignment. Both the Alviso North and South alignments go around NCM and do not fragment the habitat. pp. 3-81 Alternative 5, which includes the Alviso South levee alignment, is not acceptable is the least preferred by to the local community because of its proximity to residential and commercial properties. The community of Alviso would prefer a levee alignment that is as far away from residences as possible. The community therefore prefers the Alviso North or the Alviso Railroad Spur levee alignments to the Alviso South option, which is adjacent to the community (Table 3.10-3). In terms of aesthetic impacts to the community this respect, the Alviso North and Alviso Railroad Spur levee alignments were more acceptable had fewer impacts than the Alviso South alignment. Alternative 5 also has significant environmental impacts from filling NCM and is not consistent with the Refuge plans for long-term management of NCM (see Chapter 4 Section 7 for further discussion of impacts to NCM).

	for local preferences trumping national environmental policy. The planning goal of community support as stated in the FS-EIS does not extend to local popularity /preference of one particular one levee alignment over another if both provide opportunities for public access, education, and recreation. Therefore, reference to "community acceptability" based on purely local community "preference" (over national/NEPA environmental benefits or impacts overall) as a primary or sole reason for eliminating an alternative from rigorous review is arbitrary and inconsistent with the FS-EIS's own statement of project goals.	
028_CCCR.SFB_3-16	2.5. Non-structural (relocation) criteria. The FR-EIS does not adequately explain why non-structural flood management alternatives are not applied to the vast Water Pollution Control Plant that has so much influence on project formulation. The FR-EIS states on p. S- 18: According to officials from the WPCP, the damage to assets from a flood that at least inundates the underground facilities is estimated to total more than $250 million. This does not include the impacts and costs to health and human safety and the environment from a release of raw sewage into the bay, the cost of fines imposed by the local and state agencies, nor does it include the impact of a loss of service to homes and businesses in the region. Given the financial, safety, and environmental impacts of a damaging flood at the plant, it is reasonable to assume that in the absence of a larger Federal project the City of San José would invest in flood risk reduction measures at the plant, which would most likely consist of a ring levee and associated features. To be clear, the City of San José has stated that they do not currently have an alternative plan for reducing flood risk to the plant in the absence of a federally-sponsored levee project. Nonetheless, it is important to consider what the City might do rather than just assume no future action and count all expected flood damage over the period of analysis. A preliminary planning-level estimate of the cost of a ring levee shows the construction would cost $25 million not including real estate. This cost is included in the estimate of the cost of the non-structural alternative as well as the value of the damages reduced for the structural alternatives. See the Economics Appendix for more detail. The FR-EIS apparently does not evaluate alternatives based on "non-structural" relocation, other than an on-site ring levee in the economic analysis appendix. If, however, the full analysis of environmental benefits and flood risks of relocation were presented, it would be possible to objectively assess the long-term environmental costs and benefits during the entire time-frame of planning (century of sea level rise). The FR-EIS fails to explain why this is not a "reasonable" century-scale alternative (like other alternatives time-frame) pursuant to NEPA, from a federal perspective.	Section 3.5 discusses the flood risk management options that were considered. This includes a nonstructural FRM plan formulation strategy that includes the relocation of the community of Alviso and all major infrastructure within the 1-percent ACE floodplain (Section 3.5.2). The nonstructural flood risk management option met the completeness, effectiveness, efficiency, and acceptability criteria from the Federal perspective, but was not carried into the final alternatives array because of much higher cost and fewer NED benefits than many of the structural FRM options (Section 3.5.5.1). The nonstructural analysis does not include re-locating the WPCP because the Shoreline team determined it was much more likely that the City would construct a ring-levee to protect the Facility than to relocate it.
028_CCCR.SFB_3-17	3. Alternatives design and environmental consequences 3.1. Levee alignments and location-specific long-term environmental consequences for geomorphic and ecological evolution of landscapes. The potential biological environmental benefits of constructing low-gradient levees as terrestrial ecotones of tidal marshes depends almost entirely on the geomorphic evolution and resilience of wide (fringing or slough system) tidal marsh platforms adjacent to them. Physical benefits of fringing tidal marshes and ecotones for flooding reduction functions (wave attenuation) do not equally depend on configuration of adjacent tidal marsh and broad terrestrial environmental gradients. The geomorphic evolution scenarios rigorously analyzed and evaluated by ESA-PWA (2012) in Appendix C provide a robust and clear assessment of the risks that tidal marshes may fall behind sea level rise, and either stabilize as low marshes (constrained for nesting habitat) or mudflats (no marsh wildlife to benefit from terrestrial ecotones). The circumstances under which high marsh may form and persist to complete the ecotone established by the project levees, are unfortunately tenuous and difficult to predict. This risk is likely to intensify with increasing distance from tidal channel mouths. The risk of tidal marsh "downshifting" (elevation loss due to accretion rates falling behind sea level rise rate) needs mitigation as part of the project, to ensure that "complete marsh" (Appendix C, p. 2) ecosystems, not just the dangling levee ecotone half, are the result of the project. One proven method for minimizing the risk that high salt marsh will founder and "downshift" to unsuitably low elevations is to slurry sediment to nourish marsh elevations (see 3.2., next comment). The infrastructure and resource commitments needed for a sediment slurry or water distribution system along the project perimeter should be assessed as part of the alternatives analysis and as mitigation	We concur with your comment and all reference to lack of public information has been removed from the document. This text was a relic of early draft text when the Regional Wastewater Facility had not yet released a draft or final Plant Master Plan, and related to as yet unreleased planning and designs of the proposed Regional Wastewater Facility footprint more so than to materials that would be available in publicly accessible facility records. The monitoring and adaptive management plan includes as a possible adaptive management measure importing sediment if sedimentation is inadequate in breached ponds.

	for risks of project long-term performance deficits.	
028_CCCR.SFB_3-18	3.2. Phased long-term construction and maintenance using sediment slurry marsh sediment nourishment methods of USACE. The range of alternatives fails to consider a wetland engineering method of sediment nourishment for tidal marsh maintenance that the USACE has helped develop for subsidence-impacted tidal wetlands elsewhere in the U.S. The application of thin-layer hydraulic slurry deposits of sediment (Ray 2007: Thin Layer Placement of Dredged Material on Coastal Wetlands: A Review of the Technical and Scientific Literature, USACE ERDC/EL TN-07-1 December 2007) has been used to incrementally "lift" subsiding marsh elevations successfully in the Gulf Coast in all marsh zones. The Corps is one of the leading expert agencies nationally in applying this method to wetland restoration and management, and is well-suited to adapt this method to SF Bay vegetation and habitats. Since the cooperating and co-lead State agency is one of the primary sources of dredged sediment from flood control channels (a project purpose closely related to the proposed project), and since the flood channel maintenance sediment potentially suitable for tidal marsh sediment nourishment in the South Bay, it is reasonable to consider its applicability for the proposed project instead of routine disposal as waste rather than beneficial re-use. Thin-layer dredged sediment of suitable quality (including sandy silts or sands) could, for example, be used to incrementally raise terrestrial-tidal marsh ecotone slope elevations gradually as sea level rises, and without eliminating shallow burial-tolerant perennial native marsh or grassland vegetation. This would potentially have direct and indirect flood control benefits as well as environmental enhancement, by increasing the wave-attenuating breadth of high-roughness high marsh vegetation at higher intertidal elevations, offsetting sea level rise submergence of high marsh with lowest impact of fill. Instead, all alternatives consider only single-event fill construction, without integrating flood channel maintenance and new low-gradient habitat-levee maintenance. Despite the USACE national authority on this method, there is no reasonable NEPA explanation in the FR-EIS given for omitting or excluding incremental hydraulic sediment addition as part of phased construction or maintenance of the proposed terrestrial ecotones.	Tidal regimes and resulting tidal marsh morphology are very different in San Francisco Bay in comparison to the Gulf of Mexico coastline. Local tidal marshes have large channels which allow rapid penetration of floodwaters from the bay. Sediment lifts of tidal marsh would not provide substantial flood risk management for areas below high tide range in San Francisco Bay (especially subsided areas), although it could reduce wave action in suitable locations. Levee crest elevations for the alternatives were based on tidal data and did not consider short-period wind waves, due to the study area location which filters out most wave energy. In addition, the method proposed in the comment would take many construction seasons, and thus would leave the community of Alviso at risk from tidal flooding during this period, while the selected method could be constructed in one to two construction seasons. The Monitoring and Adaptive Management Plan includes a provision for addition of sediment if this is needed to achieve project goals.
028_CCCR.SFB_3-19	3.3. Long-term ecotone maintenance with surface or subsurface irrigation of treated wastewater to buffer marsh salinity and wave energy. Even though the San Jose wastewater treatment facility is one of the major stakeholders and flood planning for the proposed project, the NEPA alternatives array fails to consider incorporating treated wastewater discharges as a long-term component of tidal marsh and terrestrial ecotone (levee) maintenance and management. Conventional direct discharge of treated wastewater into tidal sloughs eliminates opportunities for landward edges of tidal marshes to "polish" and transform wastewater nutrients and contaminants in a way that enhances their flood control and habitat functions. This is particularly relevant to the segment of the shoreline study adjacent to the WPCP. Non-channelized (overland) surface or subsurface irrigation discharges of treated wastewater (suitable quality) through tidal marsh-terrestrial ecotones of new low-gradient levees would increase vegetation height and density, and partly buffer impacts of future climate-forced hypersalinity in the tidal marsh ecotone. Increased vegetation height and density would enhance both extent and height of high tide flood refuge canopy of vegetation, and increase wave attenuation (reducing total water levels during flood events, minimizing wave runup). Fresh-brackish back-marsh gradients maintained by beneficial re-distribution of treated wastewater should be incorporated in alternatives within the feasible "service area" of the WPCP.	The Shoreline Study does not discuss incorporating treated wastewater discharges as either part of a tidal marsh restoration project or through ecotone discharge because the WTF does not have any plans to change their current permitted discharge. The flood protection benefits of a constructed ecotone noted by the commenter (e.g. minimizing wave runup) will still be realized with the proposed preferred alternative. Adding additional project elements to improve water quality is beyond the scope of the Shoreline Study.
028_CCCR.SFB_3-20	3.4. Methylmercury management and mitigation in terrestrial-tidal marsh ecotones. Mitigation measures for managing methylmercury in constructed low-gradient levees in the tidal marsh-terrestrial ecotone should include (a) evaluation of minimizing sediment carbon content (soil organic matter) and total mercury in the constructed "cap" of the tidal marsh terrestrial ecotone; (b) design of suitable surface and subsurface drainage of the constructed levee slope to prevent fluctuating anoxic/oxic soil redox (conducive to sulfur-reducing bacterial activity) in the presence of soil organic matter. The design should anticipate gradual SLR submergence of the lower ecotone slope, and prevent undue generation of methylmercury in depressional topography there in the presence of naturally accreted soil organic matter.	The results of the SBSP Restoration Project's mercury studies to date have strongly indicated that the primary drivers of methylation of mercury have been aquatic organisms so management actions have focused on improving circulation within ponds to minimize the algae growth. For this reason there are no identified mitigation measures regarding methylmencury management in regards to the ecotones. (See "Food Web Dynamics" in the Water Quality Section 4.5 (pp. 4-132-134 of the Integrated Document for further discussion of mercury.) The commenter notes, however, that the material used for the ecotone should minimize total mercury content and the design should avoid creating physical or biological processes that could drive methylation. This input is noted and will be considered during the design of the transition zone.
028_CCCR.SFB_3-21	Phase I is an early stage SLC project in the American experience and the first levee planned to address SLC along the shores of San Francisco Bay. Questions arise that the Integrated Document has not addressed: Has Phase I assessment overlooked perspectives of the entirety of Shoreline Study Area and thereby focused decisions too narrowly?	Analysis in the Shoreline Study draft Feasibility Report, Environmental Impact Statement and Environmental Impact Report (Integrated Document) show that the Shoreline Study can occur independently of other potential future projects (or phases) in the broader Shoreline Study area as each of the Economic Impact Areas (EIAs shown on p. 1-10 of the Integrated Document) is hydrologically independent and does not increase flooding potential for adjacent areas. It is also

		important to note that phasing does not mean that other opportunities will be foregone or lost by starting with a smaller subset of restoration than restoring all the former salt ponds in the Alviso area. The Integrated Document provides multiple reasons for making the Alviso segment of the Shoreline Study the first phase of an on-going project including protecting a large number of residences, businesses and public infrastructure and the Alviso Pond cluster (Ponds A9-15 and A18) provides the largest amount of wetland restoration opportunity when compared to other EIAs. These ponds are also the most subsided and will require the greatest amount of time to restore. The Santa Clara Valley Water District has begun preliminary planning efforts on the remaining EIAs 1 to 10 in Santa Clara County. The Shoreline Study effort for EIAs 1 to 10 will consider coastal flooding induced by tides and storm surge as well as fluvial breakout flows. Both coastal and fluvial (within the tidal influence zone) flood protection levee elevation will be studied with three future sea level rise scenarios. The current recommended EIA 1-10 preliminary coastal protection levee alignment is based on the input from City of Palo Alto, City of Mountain View, City of Sunnyvale, City of San Jose, US Air Force Moffett Field, US Fish and Wildlife Service, and Coastal Conservancy. The Charleston Slough and Palo Alto Flood Basin issue was already discussed between City of Palo Alto, City of Mountain View, Coastal Conservancy, US Fish and Wildlife Service, and District. The area within Moffett field coastal area was discussed between US Air Force Moffett, Coastal Conservancy, US Fish and Wildlife Service, and District.
028_CCCR.SFB_3-22	Might the decisions of Phase I impact options for subsequent Phases in the Shoreline Study Area or related actions in Alameda County?	As discussed in Section 1.5 Project Background and Physical Study Area Setting, for a timelier planning and implementation process the Project partners decided to the Alviso Area for Phase 1. The reasons for minimizing the scope of Phase 1 are described in Section 1 and provide the greatest amount of flood protection and habitat restoration given the resources available. There is always uncertainty planning a large project, which is why the Monitoring and Adaptive Management Plan is such an important element to ensure that later phases of the Project can be adjusted based on data gathered and lessons learned in the initial phase.
028_CCCR.SFB_3-23	By omission, oversight, or process restriction might certain decisions for Phase I ultimately prove to be unfortunate, irreversible mistakes?	As discussed in Section 1.5 Project Background and Physical Study Area Setting, for a timelier planning and implementation process the Project partners decided to the Alviso Area for Phase 1. The reasons for minimizing the scope of Phase 1 are described in that section starting on page 1-10. The Phase 1 project does not increase risks to other areas, as they are hydrologically independent. An EIR is required to assess the potential direct and indirect impacts of a project. The Phase 1 project will not have an impact on the potential flood risk for the City of Sunnyvale or other areas in the greater Shoreline footprint. Future flood risk is an on-going, baseline condition. It is important to note that phasing does not mean that other opportunities will be foregone or lost by starting with a smaller subset of flood protection and restoration.
028_CCCR.SFB_3-24	Defining the Setting of the Project The Integrated Document explains that after the 2010 Feasibility Scoping Meeting (FSM), the decision was made to reduce the geographic scope to the Shoreline Phase I Study Area. From many perspectives that was a necessity with which we do not essentially disagree. Nor do we disagree with acting on behalf of the Alviso community and of the critical infrastructure provided by WPCP. We note however that the phasing action split the Study Area into a discrete segment between streams without considering the entirety of each stream nor the impacts on the opposite shore. As a result the Integrated Document omits consideration of certain questions that are relevant to the entire Shoreline Study Area and may be relevant to future, foreseeable integration of Phase I actions with a system of shoreline levees.	Your comment is acknowledged; for responses to each of your specific concern examples, please see responses 028_CCCR.SFB-25 through 028_CCCR.SFB-27.
028_CCCR.SFB_3-25	• Estuarine Setting: In its simplest definition, an estuary is the place where the flow of a river or stream meets the sea's tides. The estuary that is the San Francisco Bay is a place with a vast array of watershed-fed rivers and streams draining to meet the tides, mixing along the Bay's edges at mouths and within intertwined sloughs to dynamically deliver varying salinity, sediment and habitat conditions. It is a place that drains some 40% of the waters of the State of California. As a result, it is a water body in which fluvial and tidal influences are complex and, in impact, inseparable. How does a massive levee fit in with the healthy functioning of an estuary and of its watersheds? Estuarine characteristics apply to the entire Shoreline Study Area including Phase I. They also relate to fluvial conveyance all along the length of streams and tributaries of each watershed. Once modern era actions constrained our streams, each stream's mouth took on greater significance for drainage efficiency. Accordingly Phase I actions at and near the mouths of Coyote Creek and the Guadalupe River need to consider potential impacts of a massive levee to fluvial flow and do so on a watershed impact basis, not simply within the boundaries of the Shoreline Study Area. For both streams, there is a long history of significant economic impacts from overtopping events in multiple locations including Alviso and central areas of San Jose. Now these streams face future extreme storms induced by global climate change. The Integrated Document is incomplete and inadequate if it remains unknown as to whether its proposals help or hinder the flow efficiency of these streams. Under Planning Constraints2, the Integrated Document lists: "Do not increase flood risk in developed areas of the Study Area where loss of life and monetary damages may occur." Subsequently, while identifying Management Measures3, the Integrated Document states: "After the scope was refined to include only flood risk from tidal sources, the study team eliminated measures that addressed only fluvial flood risk management." [Ed. note: emphasis added] The question is thereby left unconsidered and	The proposed levee would be located in an area not currently accessible to fluvial flood waters. Construction of this levee, together with breaching of existing levees, would allow floodwaters from the Guadalupe River and Coyote Creek to spread over much larger areas (the breached ponds), thereby enhancing estuarine functions relative to current conditions.

	unanswered: Do Alternatives in the Final Array or Alternatives considered for and eliminated from the Final Array impact, beneficially or negatively, the functionality of either Coyote Creek or the Guadalupe River? We ask that this question be considered and answered. 2 Integrated Document, S.9.1, p. S-16 3 Integrated Document, S.11.1, p. S-19	
028_CCCR.SFB_3-26	• Future Shoreline Actions at Alviso Slough and Coyote Creek: All Alternatives in the Final Array depict the same locations for the Alviso and WPCP levee segment terminations, respectively near Alviso Slough and Coyote Creek. We did not find an explanation for those particular terminal points in the ID.	The western termination of each alternative coincides with the existing area of high ground near the former Alviso Marina. This area is sufficiently high and wide to provide a continuous line of flood protection between the downstream extent of the existing Guadalupe River FRM features and the proposed levee. The eastern termination of each alternative coincides with the existing Coyote Creek Bypass FRM Levee on the left bank of Coyote Creek.
028_CCCR.SFB_3-27	A component of Phase I is the tidal flood gate to be installed on Artesian Slough, the only waterway lying fully within the Phase I Study area. This tide gate will link the Alviso and WPCP levee segments. Seeing this component prompts the question: Is there the concept or intent for tide gates to be installed on Alviso Slough and/or Coyote Creek when a SLC levee is built on the other side of the stream? At Alviso Slough that seems quite possible as the Phase I levee, as depicted, could link during Phase II by tide gate with a levee that might border Pond A8. At Coyote Creek, the terminus is not near a location that would likely align with a SLC levee nearby nor to an existing engineered flood control levee as exists some distance inland. Nor are the lands on the other side of the creek within the Shoreline Study Area. The proposed levee appears to simply end where the existing earthen levee ends. We wonder how these decisions can be made without knowing the greater context of the entire Shoreline Study. Will tide gates be routinely used to span streams? What impacts will an “orphaned” terminus of a levee have on a stream and lands upstream?	A tide gate on Artesian Slough is proposed due to circumstances unique to that location and is not an indication of a preferred approach to managing flood flows. The reasons for a tide gate in this location, as opposed to other types of flood protection structures, are further discussed in the Artesian Slough Alignment Master Response. In regards to future Shoreline Study phases, no additional levees or tide gates would be needed for the Coyote Creek area. The SCVWD completed the Coyote Creek flood protection project in the early 90’s to address 1-percent fluvial (stream) flooding in this area. The Shoreline Study Phase I Project would tie into the existing Coyote Creek flood protection project levee. The project does not have any “orphaned” termini – see Figure 3.10-1 of fluvial flood protection levees in relation to the Project. Rather it would complete coastal and fluvial (stream) flood protection in the eastern limits of Santa Clara County and no additional actions would be required in the lower Coyote Creek area. For the Alviso Slough area, there is also an existing flood protection project on the Guadalupe River/Alviso Slough that terminates at the Alviso Marina County Park. The Shoreline Study Phase I project would tie into this existing flood protection project and thus would complete coastal and fluvial (stream) flood protection to the east in the Alviso area. Once the proposed project is built, flood waters coming down the Guadalupe River will be able to enter either the ponds or restoring wetlands on either side of Alviso Slough, while the newly constructed levee that ties into the Alviso Slough/Guadalupe River protects the town of Alviso from both coastal and/or fluvial flooding. No additional actions will be needed east of the Alviso Slough/Guadalupe River area. Future Shoreline Study efforts will next examine how best to protect the area to the west of the Alviso Slough/Guadalupe River. In future phases of the Shoreline Study, the Shoreline team will propose solutions based on local conditions. The Shoreline team will then weigh the environmental impacts, opportunities for restoration, construction costs, and operation and maintenance obligations of all proposed solutions when considering how to manage flood flows.
028_CCCR.SFB_3-28	Concern: Information about the relationships to the entire Shoreline Study Area, the complexity of the local estuarine setting and specific details as discussed here need to be in the Integrated Document.	Your comment is acknowledged; please see responses to Issues 25, 26, and 27 of this same comment letter for discussion regarding each of your individual concerns.
028_CCCR.SFB_3-29	San Jose/Santa Clara Regional Wastewater Facility Master Plan and Biosolids Ponds/Beds Alignment. In multiple locations in the Integrated Document the text mentions the San Jose/Santa Clara Regional Wastewater Facility Master Plan (RWF MP) or alternate references to it as the WPCP Master Plan or Plant Master Plan. Some references refer to it as not yet final while others acknowledge that it was approved in 2013. It was approved. Actions to implement the plan were authorized and are underway.	Your comment is acknowledged and all statements regarding the Wastewater Facility PMP have been updated to reflect the document status as being final and approved as of 2013.
028_CCCR.SFB_3-30	Through the Master Plan, the City decided that the lands along Coyote Creek could potentially be used to reduce flood risks and for habitat restoration, possibly in the form of a floodplain directly connecting the creek with Pond A18 and the restoration planned there. This proposal could not occur if any of the Alternatives of the Final Array are built.	The final adopted version of the San Jose/Santa Clara Water Pollution Control Plant’s Plant Master Plan (PMP, November 2013) states as a goal of the land use plan "Habitat: 170 acres of land that contain riparian habitat, including the Coyote Creek Riparian Habitat and the Artesian Slough corridor, would be restored or maintained." The plan does not specifically address restoring lands adjacent to Coyote Creek to riparian habitat or expanding the floodplain by connecting Coyote Creek with Pond A18. The January 2013 Draft EIR for the Master Plan states “SCVWD maintains the levee west of Coyote Creek. No changes are proposed to this levee. As part of the PMP, the City proposes to reserve open space along the levee to accommodate a potential widening of the Coyote Creek channel should the Water District and other agencies propose to do so in the future” (p. 3-50). Thus the PMP accommodates a possible future restoration of the Coyote Creek floodplain to be done by others but does not adopt specific project recommendations. The commenter is correct to note that with the construction of the Shoreline Study proposed alternatives, the restoration of the Coyote Creek floodplain by setting back the existing levees would be more difficult to implement.

028_CCCR.SFB_3-31	In August 2014, the Santa Clara Valley Water District released a Revised NOP for the South San Francisco Bay Shoreline Phase I Study. Under CEQA4, an NOP establishes the existing environmental condition and baselines for related analyses: 15125. ENVIRONMENTAL SETTING (a) An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. As the approval of the Master Plan and authorization to begin implementation occurred before the Revised NOP, the RWF MP exists as part of the environmental setting and must be integrated into the Phase I Study considerations. 4 CEQA Guidelines 14 CCR § 15125 Environmental Setting	The City of San Jose approved the Plant Master Plan and certified the EIR on November, 19, 2013. As the approval is prior to the release of the Water District's NOP, the Master Plan is considered part of the CEQA baseline for the Project. However, it should be noted that only certain elements of the proposed improvements to the physical plant are presented and assessed at a project level of detail. Most of the Master Plan, including the future alignment of levees along the northern border of the plant lands, is presented at a programmatic level (see Master Response regarding WPCP levee alignment). The Master Plan provides a broad outline of how San Jose may develop plant lands in the future, but it is speculative to draw out too many details of future development.
028_CCCR.SFB_3-32	Unfortunately, in the Executive Summary of the Integrated Document 5, the Phase I Study discusses a preemptive decision regarding a RWF MP Alternative, dropping its biosolids beds/ponds alignment from further discussion: "Because of the limited availability of public information regarding the Wastewater Facility drying ponds (e.g., hazardous materials), as well as remaining uncertainty regarding the City of San José's future plans for the area, the footprints crossing the Wastewater Facility drying beds were eliminated from consideration prior to USACE's economic analysis of flood risk management options. No further discussion of these alignments is included in this document. As the Wastewater Facility Master Planning effort proceeds into design, however, there may be further opportunity to revisit the alignment section." While the Executive Summary leaves a door slightly open, it limits it to "may be further opportunity" without explaining the conditions or the process by which that could occur within the Integrated Document. For a regional plan where implementation is underway, the Project partners have a responsibility in the Integrated Document to outline the process and steps by which the objective of the RWF MP can possibly be achieved. In addition it should describe and discuss the alignment across the biosolids ponds/drying beds as a known, potential variation of Alternatives in the Final Array. 5 Integrated Document, S.11.2.3, p. S-22	See Master Response regarding Coyote Creek Levee Alignment
028_CCCR.SFB_3-33	It is our understanding that during the current Planning phase of the USACE process, the design level proceeds just to the 15% level. In the next phase, Preliminary Engineering and Design, the design advances in increments and changes can be incorporated up to the 60% point. We understand also that Federal funding normally allows for change for up to 20% of the funded project. If these are criteria by which an active, overlapping plan that is moving forward and can achieve its goals and improve Phase I, then it should be detailed for information purposes in the Integrated Document.	The commenter is correct that changes to the project could occur during the design and engineering phase of the project. For example, as part of the design and engineering phase, the Corps will conduct a Value Engineering analysis which will investigate possible ways to lower construction costs of the authorized project. In addition, the project may be further refined as a result of permit negotiations with regulatory and trustee agencies. The design and engineering phase will incorporate the most current information available and include additional technical investigations in order to complete the design. As the commenter noted, modifications of the authorized project are allowed as long as the modifications do not materially alter the scope or functions of the authorized project and do not result in more than 20% increase in project costs or scope (Section 902 of the Water Resources Development Act of 1986). This flexibility allows the Army Corps and its local project sponsors to modify an authorized project to respond to new information or accommodate unexpected technical challenges.
028_CCCR.SFB_3-34	We ask that the Integrated Document expressly inform the public about the potential of and the means by which the RWF MP proposal can be integrated within Phase I.	As described in the Master Response to the Coyote Creek Alignment, a levee alignment through the biosolid lagoons as shown in Figure 3-1 of the RWF MP EIR is not addressed because these lands are not available to the Project. As discussed in the response to comment #33, changes to authorized projects can be made as long as they do not materially alter the scope or functions of the project and do not result in more than 20% increase in costs. If in the future the City of San Jose determines that the RWF no longer needs these biosolid lagoons for its treatment process, and the City can make the land available to the Shoreline project, it could be possible modify the Pond A18 levee. At that time, the project team would evaluate the feasibility, benefits, and other environmental considerations of implementing such alternative.
028_CCCR.SFB_3-35	Artesian Slough Tide Gate As a component of Phase I, the flood wall/tide gate structure proposed for Artesian Slough is mentioned frequently throughout the Integrated Document. Unfortunately, these are repetitions of the same information which is remarkable only for the lack of detail. This is a structure proposed for a wildlife tourism and education location virtually adjoining the public facility and parking lot. Annually thousands of tourists visit as do thousands of school kids. This structure will at minimum be very disruptive to the viewing experience especially as the slough is a prime viewing location. The public needs to know what this gate will look like and the Integrated Document doesn't tell us.	The Artesian Slough flood gate is described in further detail in Chapter 3 of the report. There will be a pedestrian bridge over the gate, which will allow for public access across Artesian Slough.
028_CCCR.SFB_3-36	There will be substantial impacts to habitat, wildlife and the slough during construction and restoration. Information is needed about these activities and their impacts.	Impacts to aquatic species from the proposed tide gate are discussed throughout Section 4.6 and impacts to terrestrial species and habitats are discussed in Section 4.7.2.4.2 under "WPCP South Levee Section and Artesian Slough Tide Gate". Additional information is also provided in the Master Response regarding Artesian Slough.

028_CCCR.SFB_3-37	The most specific detail provided is that the structure will be >=300' from the outfall. A little map checking makes us wonder about the purpose of providing that datum. The outfall is near Los Esteros Road. 300' downstream would still be a good distance before reaching the A18 levee and much further from the aerating pumps that are in the stream closer to the EEC. The alignment maps all place the Tide Gate near the EEC, a location which is nearly 2500' feet downstream of the outfall. In short, the tide gate's location requires a much, much better description. Adding to that confusion, a great deal of other information is missing about this Tide Gate. • No graphic representation of the structure. • No rough structural dimensions • No description of the extent of permanent intrusion into the slough. • No specific discussion of the construction methods or duration. • No presentation of its visual impacts in this tourism and environmental education location. • No discussion on if and how it may change or cause change to the dual channels of the slough. • No detail about the associated pedestrian bridge mentioned, presumably to link the levee trail. • No discussion of Refuge evaluation of the compatibility of this bridge with its wildlife-first policy. Lacking this information for a high visibility location, members of the public are unable to make informed comments that may be needed to avoid impacts and improve the project. We ask the omitted information be made available in the Integrated Document.	The Integrated Document incorrectly refers to the EEC as "the outfall". Specific dimensions, layout, and foundation system of the gate are shown the Civil Design Appendix (NED Plan Set and LPP Plan Set). Potential construction means and methods for all project features are discussed in the Geotechnical Investigation and Analysis Appendix, albeit in very general terms. Given the design is at "concept level" the team is confident that project is constructable via a number of prevailing construction techniques within a bulk construction time frame (i.e. ~ 3 years for FRM measures). However, specific durations or techniques for discrete elements of the project have not been fully developed to a "design or bid level".
028_CCCR.SFB_3-38	Railroad Tide Gate Pedestrian Bridge The Partners' presentation at the January public meeting of this project included a photograph of a typical railroad tide gate as proposed in the Integrated Document. Additionally a pedestrian bridge is proposed to cross over that tide gate, described but not pictured. We understand that it has been recommended that a cyclone fencing enclosure be used on the bridge, presumably to assure safety over a railroad crossing. The location of the railroad tide gate and pedestrian bridge will connect two sections of the Alviso levee that both lie on Refuge land, providing a prime elevated location for wildlife viewing for tourists or people just enjoying a hike. To be frank, cyclone fencing is just plain ugly. This pedestrian crossing should be safe to people and wildlife, aesthetically attractive and complementary to the uses of the people that cross it. It may also need to comply with Refuge requirements on behalf of wildlife. Please include these pedestrian bridge recommendations when planning the railroad pedestrian bridge.	The pedestrian bridge design and the railroad tide gate will be designed during the design and engineering phase of the project. The pedestrian bridge will likely be integrated into the railroad tide gate; for example, the tide gate could provide supports for the bridge. Since neither structure has been designed it is difficult to find examples that would provide a reasonable likeness of what the pedestrian bridge would look like and for this reason the Integrated Document does not have plans or drawings. The commenter's desire to have a bridge that is aesthetically attractive (i.e. no cyclone fencing) and meets the Refuge's standards regarding safety and wildlife (i.e. no perches) is shared by the Shoreline Project team. Since the structure will be built on Refuge property the structure will meet their design regulations and policies and will match the aesthetic style of the Refuge's facilities.
028_CCCR.SFB_3-39	We appreciate the opportunity to submit these comments and also the time extension that was provided to do so. Combined, the Integrated Document and Appendices are overwhelming for almost any reader in the public or its agencies, a limiting factor for this writer in terms of topics reviewed.	The USACE's Planning Modernization initiative under its Civil Works Transformation program requires the USACE to develop integrated feasibility reports and NEPA documents. Integrated documents have also been required by USACE South Pacific Division policy since 2010. In order to improve the readability and navigability of the integrated document, the Final report will include an annotated table of contents that provides an overview of the information included in each chapter, and indicates where to find information pertaining to the USACE planning process and NEPA/CEQA process.

From: Melody Tovar <MTovar@sunnyvale.ca.gov>
Sent: Monday, February 23, 2015 4:58 PM
To: Shoreline Environment SPN
Cc: John Stufflebean; Bhavani Yerrapotu
Subject: [EXTERNAL] Sunnyvale Comments on SB Shoreline Ph Study EIR
Attachments: Sunnyvale Comments on Shoreline Phase I EIR (Alviso) - 022315.pdf

Please see attached comments from the City of Sunnyvale. Kindly confirm receipt by replying to this email.

Thank you,

--
Melody Tovar
Regulatory Programs Division Manager
City of Sunnyvale | Environmental Services Department
(408) 730-7808
mtovar@sunnyvale.ca.gov

via email:
ShorelineEnvironment@usace.army.mil

February 23, 2015

Thomas R. Kendall
Chief, Planning Branch
Engineering and Technical Services Division
U.S. Army Corps of Engineers
San Francisco District
1455 Market St.
San Francisco, CA 94103

ATTN: William DeJager
Environmental Section A

Subject: Comments on EIR for South San Francisco Bay Shoreline Phase I Study

Dear Mr. DeJager,

The City of Sunnyvale respectfully submits the following comments on the subject EIR. Recognizing that the scope of study was refined down to a specific area within the South Bay and no longer includes Sunnyvale directly, we submit these comments as a neighboring community that may incur indirect impacts from the subject project. For the two substantive issues below, Sunnyvale staff has posed inquiries as part of the South Bay Salt Pond Restoration Project and Shoreline Study stakeholder meetings. Project staff has responded informally that these issues would not result in impacts. The City of Sunnyvale is seeking to have that feedback more explicitly included in the environmental review process.

1) Potential impacts to the South Bay Salt Pond Restoration Project: The EIR establishes that these two efforts are separate and independent. Sunnyvale recommends that the EIR explicitly state that providing protection to the study area will not result in impacts to the Restoration Project. **1**

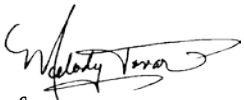
2) Potential impacts to neighboring communities through adjacent tidal areas: The EIR notes both Milpitas and Santa Clara as neighboring communities, given their direct adjacency. The City of Sunnyvale drains to the same South Bay tributary as Santa Clara, Guadalupe Slough. Sunnyvale recognizes that this Phase I study is a part of a larger Shoreline Study which does include Sunnyvale. Given the difference in timing for action **2**

on this first segment compared to the remaining segments, Sunnyvale requests that the EIR address the potential impacts of providing protection to one area of the South Bay while other areas remain unprotected. This analysis should disclose and address impacts incurred longer term (should the remaining segments be substantially delayed) or mid-term (during the period between construction of various segments.

3) Reference to Sunnyvale Treatment Ponds: Page 4-64 of the EIR includes a confusing reference to these Ponds under Section 4.3.1.2 as being used the Wastewater Facility (which is read to mean the San Jose/Santa Clara facility) in the study area. While a portion of the Ponds is located in the San Jose jurisdiction, they are owned by the City of Sunnyvale for use as part of the Sunnyvale Water Pollution Control Plant. 3

Thank you for your consideration of our comments. The City of Sunnyvale recognizes and appreciates the tremendous level of effort and care taken to prepare the study documents. If you have any questions regarding these comments, please contact Melody Tovar, Regulatory Division Manager, at (408) 730-7808 or mtovar@sunnyvaleca.gov.

Sincerely,



for

John Stufflebean
Director, Environmental Services

ID	Issue Text	Response Text
029_SV-1	1) Potential impacts to the South Bay Salt Pond Restoration Project: The EIR establishes that these two efforts are separate and independent. Sunnyvale recommends that the EIR explicitly state that providing protection to the study area will not result in impacts to the Restoration Project.	The South Bay Salt Pond Restoration project and the South San Francisco Bay Shoreline Study are separate, but closely coordinated, projects. Ponds A9-15 are a part of both projects, and the Shoreline Study proposed levee will in fact facilitate the restoration of those ponds. The earthen berms of each of those ponds cannot be breached until adequate back-side flood protection is in place, and the Shoreline Study project will provide that protection. The projects are directly complimentary, and the Shoreline Study will have no effect (positive or negative) on any other phase or location of the South Bay Salt Pond Restoration project. The EIR/S states on p. 1-11 "The Shoreline Phase I Study and the SBSPRP will be implemented as separate projects, each having its own independent utility and neither dependent on the other to achieve their purpose and need, as defined in separate environmental review processes."
029_SV-2	2) Potential impacts to neighboring communities through adjacent tidal areas: The EIR notes both Milpitas and Santa Clara as neighboring communities, given their direct adjacency. The City of Sunnyvale drains to the same South Bay tributary as Santa Clara, Guadalupe Slough. Sunnyvale recognizes that this Phase I study is a part of a larger Shoreline Study which does include Sunnyvale. Given the difference in timing for action EIR address the potential impacts of providing protection to one area of the South Bay while other areas remain unprotected. This analysis should disclose and address impacts incurred longer term (should the remaining segments be substantially delayed) or midterm (during the period between construction of various segments.	As discussed in Section 1.5 Project Background and Physical Study Area Setting, for a timelier planning and implementation process the Project partners decided to include only the Alviso Area for Phase 1. The reasons for minimizing the scope of Phase 1 are described in that section starting on page 1-10. This leaves other areas in the overall Shoreline footprint subject to tidal flooding, but the Phase 1 project does not increase risks to other areas. An EIR is required to assess the potential direct and indirect impacts of a project. The Phase 1 project will not have an impact on the potential flood risk for the City of Sunnyvale or other areas in the greater Shoreline footprint. Future flood risk is an on-going, baseline condition. It is important to note that phasing does not mean that other opportunities will be foregone or lost by starting with a smaller subset of flood protection and restoration.
029_SV-3	3) Reference to Sunnyvale Treatment Ponds: Page 4-64 of the EIR includes a confusing reference to these Ponds under Section 4.3.1.2 as being used the Wastewater Facility (which is read to mean the San Jose/Santa Clara facility) in the study area. While a portion of the Ponds is located in the San Jose jurisdiction, they are owned by the City of Sunnyvale for use as part of the Sunnyvale Water Pollution Control Plant.	Your comment is acknowledged and the text in Section 4.3.1.2 has been revised so there is no reference to the Sunnyvale ponds being used by the (San José-Santa Clara Regional) Wastewater Facility.

030_SJ

From: Berry, Whitney <Whitney.Berry@sanjoseca.gov>
Sent: Monday, February 23, 2015 5:03 PM
To: Shoreline Environment SPN; michael.martin@valleywater.org
Cc: Davies, Ken; Piasecki, Steve; Hughey, Rosalynn
Subject: [EXTERNAL] Comment Letter for Shoreline Study DEIS/DEIR
Attachments: City of San Jose Comment Letter on Shoreline Study DEIS DEIR.pdf

Dear Mr. DeJager, Mr. Martin,

Please find the City of San Jose's comment letter on the draft EIS/EIR attached. Thank you for the opportunity for continued involvement in this project.

Best,

Whitney

Whitney Berry
Planner | Planning, Building and Code Enforcement
City of San Jose
(408) 535-7829

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Planning, Building and Code Enforcement
HARRY FREITAS, DIRECTOR

February 23, 2015

Mr. Bill DeJager
1455 Market Street
San Francisco, CA 94103

Re: South San Francisco Bay Shoreline Phase 1 Project Draft Environmental Impact Statement/Report (DEIS/DEIR)

Dear Mr. DeJager,

Staff of the City of San José has received the above referenced DEIS/DEIR. As discussed in the DEIS/DEIR, the City of San José is a major landowner within the project area, owning Pond A18 and the lands of the Santa Clara/San Jose Regional Wastewater Facility (RWF). Under the California Environmental Quality Act (CEQA), the City of San José is a Responsible Agency this project.

The City of San José would like to submit the following comments on the DEIS/DEIR:

- The document mentions that the RWF is outside the 1% ACE, but within the 0.2% ACE. The current flood maps show the RWF to be within the 1% floodplain. Please clarify which maps or study the 0.2% ACE was drawn from. **1**
- The San Jose-Santa Clara Regional Wastewater Facility is currently considering a long-term arrangement that would allow the San Jose Police Department's Bomb Disposal Facility (BDF) to remain on-site. The PMP EIR accounted for the BDF as an existing use, but subsequent decisions regarding the location of new biosolids processing and the regional value that the BDF provides to local law enforcement, have led to discussions about its continued presence. The northern portion of the BDF is less than a quarter mile from a section of the proposed levee, so should be evaluated in regards to structural integrity and public access. **2**
- What storm event is considered for the "existing" level of flood protection? **3**
- Are the salt marshes expected to be naturally occurring in the future? What measures, if any, are proposed to minimize any future maintenance that might reduce the effectiveness of the project? **4**
- The railroad is a spur owned by the City and any shipment needed at the RWF is coordinated with Union Pacific Railroad (UPRR). If a railroad gate is constructed, would the City be able to control the gate for future use? **5**
- What is the potential cost for the overall project and how will it be maintained? **6**

200 E. Santa Clara Street, 3rd Floor Tower, San José, CA 95113-1905 *tel* (408) 535-7900 **www.sanjoseca.gov**

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Planning, Building and Code Enforcement
HARRY FREITAS, DIRECTOR

- The community of Alviso once had a thriving boating and shipping port industry. With the proposed levee in place, what is the potential for the community to have a port in the future? 7
- How will the height of the levees affect the landscape of the Alviso community? 8

Thank you for the opportunity to provide these comments. The City of San José looks forward to working with the project proponents of the Shoreline Phase I Project as environmental review of the Project proceeds. Please feel free to contact me with any questions you may have.

Sincerely,

Whitney Berry

Planner II, Environmental Review
Planning, Building and Code Enforcement

cc: Ken Davies, Environmental Compliance Officer, Environmental Services Department
Rosalynn Hughey, Assistant Director Planning, Building and Code Enforcement
Steve Piasecki, Planning Official, Planning Division

200 E. Santa Clara Street, 3rd Floor Tower, San José, CA 95113-1905 ***tel*** (408) 535-7900 **www.sanjoseca.gov**

ID	Issue Text	Response Text
030_SJ-1	The document mentions that the RWF is outside the 1% ACE, but within the 0.2% ACE. The current flood maps show the RWF to be within the 1% floodplain. Please clarify which maps or study the 0.2% ACE was drawn from.	The statement referenced in your comment comes from the Economics Appendix, Section 2.3, and was based upon the hydraulic analysis given in the Tidal Flood Risk Analysis Appendix (specifically the Tables 18 through 20 for year 2017 Interior values for the 1% ACE and 0.2% ACE). The statement was based on the 1% ACE event relative to the elevation of the buildings and facilities at the plant. By "current flood maps" we assume you are referring to FEMA's Flood Insurance Rate Map dated February 19, 2014, which shows the entire ground surface area within the 1% ACE, but does not consider the elevation of the structures. However, it is recognized that there are portions of the plant's property that are not elevated above the 1% ACE water surface elevation. The text in the Economic Appendix has been revised to state: "Most of the plant's buildings and infrastructure are elevated above of the 1% ACE floodplain, but some are within the 0.2% ACE floodplain."
030_SJ-2	The San Jose-Santa Clara Regional Wastewater Facility is currently considering a long-term arrangement that would allow the San Jose Police Department's Bomb Disposal Facility (BDF) to remain on-site. The PMP EIR accounted for the BDF as an existing use, but subsequent decisions regarding the location of new biosolids processing and the regional value that the BDF provides to local law enforcement, have led to discussions about its continued presence. The northern portion of the BDF is less than a quarter mile from a section of the proposed levee, so should be evaluated in regards to structural integrity and public access.	Thank you for this additional information. We have updated the land use, recreation, and cumulative impacts sections in the EIR/S to include this facility.
030_SJ-3	What storm event is considered for the "existing" level of flood protection?	The current level of tidal flood risk reduction cannot be determined with certainty, since the salt pond-dike system is a non-engineered system not designed for the purpose of flood risk reduction.
030_SJ-4	Are the salt marshes expected to be naturally occurring in the future? What measures, if any, are proposed to minimize any future maintenance that might reduce the effectiveness of the project?	Yes, the salt marsh is expected to be naturally occurring in the future. Future vegetation maintenance, such as mowing, would only take place on the land side of the levee and 15 feet bayward of the maintenance road on the levee crest.
030_SJ-5	The railroad is a spur owned by the City and any shipment needed at the RWF is coordinated with Union Pacific Railroad (UPRR). If a railroad gate is constructed, would the City be able to control the gate for future use?	The proposed tide gate structure across the UPRR track will be operated by Santa Clara Valley Water District staff. During an extreme tidal event, the tide gate would be closed to prevent tidal flows from flowing inland. There would be no major disruptions to the railroad if the tide gate is closed, since UPPR would need to shut down the operation of this track during an extreme tidal event.
030_SJ-6	What is the potential cost for the overall project and how will it be maintained?	The USACE signed implementation guidance for WRRDA 2014, Section 1025 on 26 February 2015, which allows it to recommend a USACE project that includes the implementation of ecosystem restoration on USFWS lands. The Final EIS will be revised to reflect this guidance, and explain the implementation responsibilities of the Federal and non-Federal entities, including schedule, cost/funding, construction, monitoring and adaptive management, and operation and maintenance. This information will be provided in Chapter 9 and summarized in the Executive Summary.
030_SJ-7	The community of Alviso once had a thriving boating and shipping port industry. With the proposed levee in place, what is the potential for the community to have a port in the future?	The proposed levee would not block Coyote Creek or Alviso Slough from boat traffic, and therefore will have no effect on boating. However, the restoration component of the project will likely increase the depth and width of these channels over time, allowing greater boat access. There will however be localized increases in tidal velocities in the vicinity of the pond breaches, as currently experienced at Pond A6 at the mouth of Alviso Slough
030_SJ-8	How will the height of the levees affect the landscape of the Alviso community?	Unlike the existing berms around the ponds, the proposed flood protection levees will not feature steeply sloping sides. The levee will be much wider and have a gentler slope. The trails on top of the constructed levee will be wider than the existing trails on top of the salt pond berms. The flood protection levee is not expected to noticeably affect the views of the surrounding landscape and the horizon from the town of Alviso. It will be more noticeable at the Alviso Marina County Park and at the US FWS's Environmental Education Center because these visitor destinations will be much closer to the levee; but even there it is not expected to be significant. Please see Chapter 4.12 Aesthetics for additional discussion of the levee appearance and visual simulations of the proposed levees from various points in Alviso. Please also note that the levee will feature a trail on top which will provide enhanced (from slightly higher up) views of the surrounding landscape. In addition, the ponds will be restored to tidal marshes, bringing back more of what was originally the natural landscape in the Alviso area.

031_EPA_2

From: Munson, James <MUNSON.JAMES@EPA.GOV>
Sent: Monday, February 23, 2015 5:16 PM
To: Morkill, Anne; DeJager, William R SPN; DeJager, William R SPN; Kendall, Thomas R SPN
Cc: Shoreline Environment SPN; Buxton, Brenda@SCC; Amato, Melisa
Subject: [EXTERNAL] EPA Comment letter for the South San Francisco Bay Shoreline Study: Alviso Ponds and Santa Clara County Interim Feasibility Study Project DEIS
Attachments: EPA Comment letter for the South San Francisco Bay Shoreline Study_Alviso Ponds and Santa Clara County Interim Feasibility Study Project DEIS.pdf

Please find attached our comment letter for the South San Francisco Bay Shoreline Study: Alviso Ponds and Santa Clara County Interim Feasibility Study Project DEIS.

Hard copy to follow…

James M. Munson, CFM
Environmental Protection Specialist
Enforcement Division, NEPA Section
U.S. EPA, Region IX
75 Hawthorne Street ENF- 4-2
San Francisco, Ca 94105
(415) 972-3852, Fax: (415) 947-8026

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

February 23, 2015

Thomas R. Kendall
Chief, Planning Branch
Engineering and Technical Services Division
U.S. Army Corps of Engineers San Francisco District
1455 Market St. San Francisco, CA 94103
ATTN: William DeJager

Anne Morkill, Refuge Manager
Don Edwards San Francisco Bay NWR
U.S. Fish and Wildlife Service
1 Marshlands Rd.
Fremont, CA 94555

Subject: Draft Environmental Impact Statement for the South San Francisco Bay Shoreline Study: Alviso Ponds and Santa Clara County Interim Feasibility Study Project, Santa Clara and Alameda Counties, California. (CEQ # 20140371)

Dear Mr. Kendall and Ms. Morkill:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement for the South San Francisco Bay Shoreline Study: Alviso Ponds and Santa Clara County Interim Feasibility Study Project, pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500 1508) and Section 309 of the Clean Air Act.

The DEIS analyzes proposed restoration strategies for approximately 9,000 acres of former commercial salt ponds in the Alviso pond complex and includes, as the project purpose, both flood risk management and tidal habitat ecosystem restoration. The complex is part of the San Francisco Bay Estuary, which is one of the largest and most important estuarine systems in the western hemisphere. It is a significant component of the Pacific Flyway, supporting a high level of native wildlife diversity and providing a broad range of ecosystem services. The U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service propose to undertake a large scale levee and tidal marsh restoration project that would be resilient to sea level rise for at least the 50 year life of the project.

The DEIS identifies Alternative 3 as the Tentatively Selected Plan and, on February 2, 2015, we received a letter from the Corps clarifying that it is the Preferred Alternative for this EIS (see attached letter). The DEIS also identifies Alternative 3 as the least environmentally damaging practicable alternative for this project. EPA supports the selection of Alternative 3. We recognize that Alternative 3, due to its restoration project design, calls for more fill than do the other action alternatives; however, we believe that "least environmentally damaging" does not mean least amount of fill in this case. Alternative 3 has the potential to provide essential flood protection for the Alviso community, create critical habitat for sensitive species, and allow for the Baylands to migrate over time, thereby providing adaptive capacity for species that need to move to more suitable range elevations as sea level rises.

Although we reviewed all of the alternatives evaluated in the DEIS, our rating of the DEIS is based on our evaluation of Alternative 3. We have rated Alternative 3 and the DEIS document as Environmental Concerns - Insufficient Information (EC-2) (see enclosed "Summary of Rating Definitions"). EPA

would have substantially greater concerns if any of the other alternatives were selected. While we support the selection of Alternative 3, we recommend that the Final EIS include more information concerning when and how restoration of ponds A9 - A15 would occur, as well as how this restoration would be funded. We understand that the Corps is awaiting Water Resources Development Act implementation guidance regarding restoration on U.S. Fish and Wildlife Service lands. We recommend that the FEIS commit to full restoration of all ponds in the project area, explain how it would be funded, and provide a timeline for this tidal restoration. We also recommend that the FEIS provide additional information regarding operation of the Artesian Slough tide gates and any potential impacts of such operation on the San Jose-Santa Clara Water Pollution Control Plant. Regarding air quality, we recommend that the FEIS describe how the project would comply with EPA's General Conformity Rule.

Recognizing that the South San Francisco Bay is a mercury rich environment, EPA recommends that actions associated with the Project be closely monitored to avoid remobilization of mercury laden sediment or the creation of environmental conditions that promote bioaccumulation. We recommend that the lead agencies use the most current information available to evaluate the project's design and construction methods to minimize mercury mobilization.

Given the high flood risk in the Alviso Community, we suggest that the FEIS explain how the proposed design complies with the recent Executive Order 13690 – "Establishing a Federal Flood Risk Management" signed by President Obama on January 30, 2015.

Page 1-1 of the DEIS incorrectly identifies EPA as a Cooperating Agency. Please correct this in the Final EIS. EPA has not received any request to serve as a Cooperating Agency for this project. Please see the attached Detailed Comments for further discussion of our concerns and recommendations.

EPA appreciates the opportunity to review this DEIS. When the FEIS is released, please send one hard copy and three CDs to the address above (mail code: ENF-4-2). If you have any questions, please contact me at (415) 972-3521, or have your staff contact James Munson, the lead reviewer for this project. James can be reached at (415) 972-3852 or Munson.James@epa.gov.

Sincerely,

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosures: Summary of the EPA Rating System
Corps Preferred Alternative Clarification Letter

cc: Cay Goude, Assistant Field Supervisor, USFWS
Larry Goldzband, Executive Director, BCDC
Bruce Wolfe, Executive Officer, SF Bay Regional Water Quality Control Board
Sam Schuchat, Executive Officer, California Coastal Conservancy
Beau Goldi, Chief Executive Officer, Santa Clara Valley Water District
Napp Fukuda, Deputy Director, Department of Environmental Services, City of San Jose

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT FOR THE SOUTH SAN FRANCISCO BAY SHORELINE STUDY: ALVISO PONDS AND SANTA CLARA COUNTY INTERIM FEASIBILITY STUDY PROJECT, SANTA CLARA AND ALAMEDA COUNTIES, CALIFORNIA. (CEQ # 20140371) February 23, 2015

LEDPA Determination

Page 3-81 of the DEIS identifies Alternative 3 as the least environmentally damaging practicable alternative for this project. While a LEDPA determination is not necessary for authorization of this project, EPA supports the selection of Preferred Alternative 3 as the environmentally preferable alternative, and believes it is fully consistent with the standards of the 404(b)(1) Guidelines, including the LEDPA. To facilitate permitting, we recommend that the Final EIS and the 404(b)(1) analysis (Appendix X) more fully demonstrate that Alternative 3 meets these criteria. While alternatives other than Alternative 3 would involve less fill, EPA believes that they would result in other adverse environmental consequences. A fuller documentation of the reasons Alternative 3 has been identified as the LEDPA would be helpful, as it is important for the public and other stakeholders to understand the greater risk of harm and damage inherent in the other action alternatives.

Recommendations:
In order to better demonstrate the environmental benefits of Alternative 3:

Revise the 404(b)(1) analysis (Appendix X) to address three components of the project: levee alignment, levee height, and ecotone vs bench design. Because these components are theoretically independent from each other, discussing each in turn could be a clear way to demonstrate that the final alternative chosen is composed of the least damaging alignment, height, and transition habitat choices. The revised analysis should include an estimate of the acres of fill and the acres of special aquatic sites provided after construction is complete.

Fully address, in Appendix X, the overall impacts to waters of the U.S., impacts to special aquatic sites (e.g. wetlands and mudflats), non-waters impacts, and whether a given component meets the stated project purpose and objectives.

More clearly describe, in Appendix X, how the project area would be restored to a more natural high quality habitat, such as tidal wetlands and high-tide refugia, and provide benefits to species of concern.

Include, in the FEIS, an estimate of the acres of wetlands likely to form in the ecotone after construction. The DEIS includes restoration estimates for various habitat types; however, it does not appear that these numbers account for wetlands likely to develop in the ecotone.

Benefits of Ecotone Design for Habitat Restoration

Alternative 3 includes the establishment of an ecotone adjacent to the Flood Risk Management levees. It does not appear that that Alternative 2, 4 or 5, each of which relies on a bench design and would not provide an ecotone, would meet the stated goal of restoring ecological function and habitat quantity, quality, and connectivity for special status species. It is not clear from the document that the bench habitat would provide adequate high tide refugia or buffer for salt marsh harvest mouse or clapper rail, which is identified in U.S.

FWS "The Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California" (Recovery Plan) as a necessary component of marsh restoration for these species[1].

Recommendation:
Discuss, in the FEIS and Appendix X, the habitat recommendations in the Recovery Plan and clarify whether the bench design would meet high tide refugia and buffer needs for the target species. If not, the FEIS should explain whether/how these alternatives would meet the stated objectives for special status species. Provide a comparative analysis of how the ecotone alternative vs. bench alternatives would meet the stated objectives of restoring special status species habitat.

Alternatives/Levee Height

The DEIS identifies Alternative 2, with a 12.5 foot or 13.5 foot levee height, as the tentative National Economic Development Plan. EPA understands that the NED Plan represents the alternative identified by the Corps as having the most cost effective levee alignment and the levee height that would generate the greatest net benefits. Section 3.5.4 of the DEIS identifies screening criteria for evaluation of the flood protection measures, such as completeness, effectiveness, efficiency, and acceptability. Alternatives carried forward, including the NED Plan, must meet these screening criteria. The acceptability criterion includes consideration of whether an alternative will be consistent with federal laws and codes. Page 3-80 of the DEIS states that a 13.5' levee height would not meet FEMA levee certification criteria at the end of the plan period in 2067. It is unclear how a levee design that does not meet FEMA accreditation requirements would qualify as an acceptable alternative under the Corps screening criteria.

Recommendations:
In the FEIS, clarify how FEMA requirements affect the Corps' acceptability screening criteria and explain how the proposed NED Plan levee height of 12.5' or 13.5' would meet the screening criteria, given the apparent conflict with FEMA accreditation requirements.

Water Quality

Sediment Supply
As stated in the DEIS, recent United States Geological Survey research indicates a trend in San Francisco Bay, whereby levels of suspended sediments are steadily decreasing and the Bay is becoming less turbid (p. 3-87). However, it should be noted that these studies also indicate that suspended sediment levels vary in the different regions of the Bay, and perhaps fortuitously for the proposed project, the South Bay still retains high suspended sediment concentrations and generally high sedimentation rates. For example, sedimentation in some locations in Pond A21 accumulated over 220 mm in 2 to 3 years.

Recommendation:
Given the beneficial accretion rates seen in similar adjacent projects, we suggest that the construction implementation be designed to maximize marsh sediment deposit, thus utilizing tidal marsh's natural potential to keep up with sea level rise.

[1] http://www.fws.gov/sacramento/es/recovery-planning/tidal-marsh/Documents/TMRP_Volume1_RP.pdf

Nutrients

San Francisco Bay is a nutrient-enriched estuary, but has been buffered from the potential negative consequences of elevated nutrient levels by a variety of factors. In the future, projected increases in water clarity and water temperatures will create conditions that could result in adverse impacts in the Bay as a result of high nutrient concentrations, including the potential proliferation of harmful algal species.

Recommendations:

Discuss, in the FEIS, the benefits of levee designs that incorporate transitional zone features, including the creation of tidal marshes, and the ability of these ecosystems to take up nutrients at a high rate.

Add the following information to Table 4.5-10, entitled, "Likely Future Status of Water Quality Contaminants in the Shoreline Phase I Study Area":

1. For the "Nutrients" block, add the Regional Monitoring Program's Nutrients Strategy: The San Francisco Bay Nutrient Science and Management Strategy is a regional initiative for developing the science needed for informed decisions about managing nutrient loads and maintaining beneficial uses within the Bay in response to the apparent changes in the Bay's resilience to nutrient loading.
2. For the "Algae" block, add the National Coastal Condition Assessment, which will be sampling for harmful algal species in the Bay in 2015.

Monitoring and Adaptive Management

The DEIS includes a thorough monitoring and adaptive management plan developed based upon the 2006 South Bay Salt Pond Restoration Project (SBSPRP). EPA supports the scientific and adaptive management approach adopted by the SBSPRP to manage the phased restoration of the salt ponds, given the uncertainty that exists in the project area. We are pleased to see the same approach is being applied to the Project. However, the DEIS is unclear on who has responsibility to ensure that the monitoring and adaptive management plan is implemented. The functioning of the levee is integral to the restoration of the salt ponds, and the Corps is responsible for restoration of at least Pond A18; therefore, it appears that the Corps bears at least some responsibility for implementing the plan. Yet, it is unclear how the Corps, FWS, State and the local sponsors will share this responsibility.

Recommendation:

Clarify, in the FEIS, who would maintain responsibility, including financial responsibility, for implementing the monitoring and adaptive management plan and ensuring the project's success. The FEIS should clearly state which agencies/stakeholders, such as the Corps, FWS, State of California, and/or local sponsors, would take on which responsibilities throughout the fifty year life of the project.

Artesian Slough Tide Gates and Wastewater Facility NPDES permit

All action alternatives in the DEIS include constructing tide gates across Artesian Slough just downstream from the San Jose-Santa Clara Water Pollution Control Plant (Wastewater Facility) outfall. According to page 4-211 of the DEIS, these gates could be closed "in extreme storm events," but the document does not provide sufficient operational information about the tide gates beyond this vague description. We, therefore, cannot evaluate the impact this component of the project may have on water quality and the Wastewater Facility's ability to comply with its NPDES permit (permit # CA0037842).

Recommendations:
Provide additional information in the FEIS on operation of the Artesian Slough tide gates, including the estimated frequency of closure now and in the future, estimated duration of closure, estimated volume of water the Wastewater Facility would need to hold or otherwise discharge during gate closure, and whether or not gate closure could result in violation of the Wastewater Facility effluent limitations, receiving water limitations, or other permit conditions. Consider identifying how coordination on this project element would be accomplished should extreme storm events occur.

Construction and operation of this project element would require extensive coordination with the Wastewater Facility and, possibly, the Regional Water Quality Control Board. We suggest that the FEIS identify how the Corps and local sponsors would coordinate with these entities on this component of the project.

Air Quality

General Conformity
EPA's General Conformity Rule, established under Section 176(c)(4) of the Clean Air Act, provides a specific process for ensuring federal actions will conform with State Implementation Plans to achieve National Ambient Air Quality Standards. Although the DEIS states; "As the project would not result in population or employment growth there would be no conflict with, or obstruction of, air quality plans" (p. 4-460 and elsewhere), this is not the analysis required by the General Conformity Rule. The rule sets de minimis thresholds, depending on the nonattainment status of the region where a federal action will occur. The Bay Area Air Basin is designated moderate non-attainment for EPA's 1997 1-hour ozone standard. As specified in 40 CFR 93.153, the de minimis threshold for federal actions in moderate ozone nonattainment areas is 100 tons per year for NOx and VOCs. Emissions from any of the alternatives might exceed these de minimis standards. For example, under Alternative 2, emissions in 2017 are estimated as 773 lbs per day of NOx (Table 4.10-7), which converts to 141 tons per year if construction occurs over 365 days a year, or 96 tons if construction occurs over 250 days per year. If annual project emissions exceed the de minimis concentrations, the Corps/FWS are required to prepare a general conformity analysis, demonstrating conformity with the applicable State Implementation Plan by one of the methods specified in 40 CFR 93.158. Additionally, the rule requires public notice of a general conformity determination, as stated in 40 CFR 93.156.

Recommendation:
Determine whether annual project emissions would exceed the de minimus concentrations established for federal actions in moderate ozone attainment areas, thereby requiring a general conformity analysis. If an analysis is required, specify one of the methods provided by 40 CFR 93.158 to demonstrate conformity with the applicable State Implementation Plan. In addition, discuss public participation that may be required.

Construction Mitigation Measures

We are pleased that the DEIS includes air quality avoidance and minimization measures, such as limiting idling to a maximum of 5 minutes, limiting vehicle speeds to 15 mph, and administering traffic control (page: 4-455). Additional measures are available to further reduce air quality impacts.

Recommendations:
Ensure that construction vehicles use newer and cleaner construction equipment (e.g. Tier 4), or diesel particulate filters on older construction equipment.

Use electricity from the grid, rather than portable diesel-powered generators, if possible.

Flood Protection (Executive Order 13690)

On January 30, 2015 President Obama issued Executive Order 13690 – Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, which amends Executive Order 11988 – Floodplain Management. Section 6(c) of Executive Order 13690 requires that, rather than basing the floodplain on the area subject to a one percent or greater chance of flooding in any given year, the floodplain be established using one of the following approaches:

(1) Unless an exception is made under paragraph (2), the floodplain shall be:
(i) the elevation and flood hazard area that result from using a climate-informed science approach that uses the best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science. This approach will also include an emphasis on whether the action is a critical action as one of the factors to be considered when conducting the analysis;
(ii) the elevation and flood hazard area that result from using the freeboard value, reached by adding an additional 2 feet to the base flood elevation for non-critical actions and by adding an additional 3 feet to the base flood elevation for critical actions;
(iii) the area subject to flooding by the 0.2 percent annual chance flood; or
(iv) the elevation and flood hazard area that result from using any other method identified in an update to the Federal Flood Risk Management Standards.

For more information on go to: https://www.fema.gov/federal-flood-risk-management-standard-ffrms

Recommendation:
Clarify how Alternative 3 would meet the goals of Executive Order 13690, and discuss any changes to the project necessary to meet the stated goals. Compare the ability of Alternative 3 to to meet the goals of the EO with that of the other alternatives. For more information on go to: https://www.fema.gov/federal-flood-risk-management-standard-ffrms.

The DEIS identifies a 50 year planning horizon for the project; however, the useful life of the levees could extend well beyond 50 years, if designed appropriately to accommodate expected sea level rise. Because the analysis only extends to 2067, it is not clear how the levees would perform beyond this period, especially given the expected acceleration of sea level rise.

Recommendation:
Discuss the level of flood protection provided by the alternate levee heights (12.5', 13.5', and 15.2') under each of the three sea level rise scenarios out to year 2100.

Species of Concern and Habitat Assessment/Valuation

Transition Zone Habitat

The establishment of an ecotone adjacent to the levee, as proposed in Alternative 3, can be expected to provide substantial ecological benefits, especially for special status species such as the steelhead trout, salt marsh harvest mouse, western snowy plover, california least tern, and california clapper rail, which are identified as possibly using the project site (page 2-7). The DEIS references the Tidal Marsh Recovery Plan, which states that lack of high tide refugia habitat is a threat for both salt marsh harvest mouse and California clapper rail. The Recovery Plan also identifies creation of ecotone habitat as necessary for delisting (see specifically Sections II.b.7, II.e.7, and III.a in the Recovery Plan). The bench habitat described in Alternatives 2, 4, and 5 does not appear to provide suitable high tide refugia or buffer habitat for salt marsh harvest mouse and California clapper rail, as called for in the Recovery Plan. Page 28 of the Recovery Plan states that, "Levees generally are too steep, narrow, and weedy to be high quality high-tidal refugia for tidal marsh animals."

Recommendations:

In the FEIS, expand on the habitat restoration recommendations in the Recovery Plan, including the need for high tide refugia and buffer habitat, and explain how they would be supported by Alternative 3 versus the other alternatives

Describe the total width, the width minus the 15' vegetation maintenance zone, and the expected vegetative condition of unmaintained habitat for each alternative.

Habitat Assessment

The DEIS does not clearly explain how the habitat assessment/valuation was performed. Specifically, the Combined Habitat Assessment Protocols Summary in Appendix J does not sufficiently describe the action alternatives, making it difficult to assess how the habitat values of the different alternatives were evaluated. Further, EPA is aware that an assessment using the California Rapid Assessment Method was performed for this project, yet it is not clear how this information was used in the habitat valuation.

It appears that the habitats were scored independently and then summed to provide an estimated benefit for a given alternative. The benefit of the ecotone habitat is not just the value of that habitat type alone. The greater value of this habitat is that its presence increases the value of the adjacent marsh habitat. Many species found within tidal marshes need high tide refugia, including salt marsh harvest mouse and california clapper rail. Without high tide refugia, i.e., ecotone habitat, the marsh habitat is of lower quality for these species. In addition, ecotone habitat can filter pollutants and provide a buffer between urbanized areas and the marsh, thereby increasing the overall quality and functioning of the marsh itself. Therefore, restored marsh habitat in alternatives without ecotone habitat (i.e. alternatives 2, 4, and 5) should have been given lower scores than restored marsh habitat in alternatives with ecotone habitat (i.e. preferred alternative 3). Appendix A references the 1999 Baylands Ecosystem Habitat Goals Report which "presents recommendations for the kinds, amounts, and distribution of wetlands and related habitats". We note that a technical update to the Baylands Ecosystem Habitat Goals Report is expected March 2015.

Recommendations:

Expand on the discussion of ecotone habitat value by incorporating habitat restoration recommendations in the Recovery Plan. If the updated Baylands Ecosystem Habitat Goals Report Technical Update is released before the FEIS is completed, the FEIS should reference ecotone habitat recommendations from this report as well. The Baylands Ecosystem Habitat

Goals Report Technical Update is expected March 2015. http://www.sfbayjv.org/about-strategy.php

The FEIS should discuss how the restored marsh habitat was valued for each alternative. The restored marsh habitat in Alternatives 2, 4, and 5 should be scored lower than that of Alternative 3 due to the lack of suitable ecotone habitat.

This comparison should also identify whether the bench and or ecotone habitat will meet high tide refugia and buffer recommendations identified the Recovery Plan.

Update Appendix J to include all action alternatives.

Compensatory Mitigation

The DEIS indicates that the Corps is not proposing compensatory mitigation for wetland impacts because the project will result in the eventual restoration of many hundreds of acres. However, it can take many decades for tidal marsh habitat to develop and the DEIS identifies a time lag between anticipated project impacts and successful habitat restoration. While this impact is identified as less than significant because the project will result in a net increase in wetlands in the long term, the discussion in the DEIS is not adequate to demonstrate that mitigation is not needed for the loss of wetlands in the near-term.

Recommendations:

The FEIS should include additional discussion of likely short-term wetland impacts and further justification for the conclusion that compensatory mitigation is not required. Specifically, the FEIS should identify the acres of wetlands likely to develop within 3-5 years after predicted construction-related impacts. This can be done by estimating the acreage that will fall within the tidal range known to support marsh vegetation. If this acreage of expected short-term wetland development is less than the acreage of wetlands fill, then the FEIS should estimate how long it will take to achieve no net loss of wetlands.

Methylmercury

Page 4-162 of the DEIS states that, as part of the South Bay Salt Pond Restoration Project (SBSPRP), "studies are currently underway to evaluate the long-term effects, recent data suggest that methymercury (MeHg) concentration would decrease after restoration of tidal habitat". These studies also indicate MeHg increases following levee breaches to restore tidal action to salt ponds are temporary. In addition, the South San Francisco Bay is located in a mercury (Hg)-rich environment due to historic and continuing run off from the New Almaden Quicksilver Mine. Given these conditions, management actions associated with the salt pond restoration (e.g. levee breaches) may remobilize mercury laden sediments. This remobilization of mercury could create environmental conditions that increase or decrease MeHg production and bioaccumulation. In order to continue to restore tidal wetlands, the SBSPRP monitors changes in the distribution, speciation and bioaccumulation of Hg that could be caused by project actions.

Recommendations:

Use the most current information from the SBSPRP to evaluate the South Bay Shoreline levee's design and construction to minimize Hg mobilization and bioaccumulation.

The discussion in the DEIS of the potential for increased exposure to methylmercury (MeHg) resulting from the project was focused primarily on construction-related mobilization of MeHg. The document did not

discuss whether fish, birds, and invertebrates using the restored marshes would likely be exposed to higher levels of MeHg than under current conditions.

Recommendations:
Clarify, in the FEIS, whether fish, birds, and invertebrates using the restored marshes would likely be exposed to higher levels of MeHg than under pre-construction conditions. We recommend that the FEIS demonstrate whether restored marshes would have lower rates of MeHg production than under pre-construction conditions.

Aquatic Biological Resources/State Permitting
The Aquatic Biological Resources (ABR) Section identifies consistency with the Recovery Plan as a significance criterion; however, the impact discussion simply states that, since the Recovery Plan does not cover aquatic species, the project will not conflict with its provisions (pag: 4-234). In addition, consistency with the Recovery Plan is not sufficiently discussed in the Terrestrial Biological Resources (TBR) Section. The Recovery Plan clearly addresses habitats covered under the proposed project, and one of the primary objectives of the project is to restore habitat for special status species addressed in the Recovery Plan (i.e. salt marsh harvest mouse and California clapper rail). The impact significance thresholds for the Aquatic and Terrestrial Biological Resources sections should also identify any conflicts with Regional Board and BCDC policies or regulations since the project would require permitting by both of these state agencies.

Recommendations:
Discuss project consistency with the Recovery Plan either in the Aquatic and Terrestrial Biological Resources Sections of the FEIS. This analysis should include discussion of whether the ecotone and bench habitats are consistent with the recommendations for high tide refugia and buffer habitats.

Incorporate Regional Board and BCDC policy and regulation considerations in the impact analysis.

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET ST.
SAN FRANCISCO, CALIFORNIA 94103-1399

2 February 2015

Ms. Kathleen Goforth
Environmental Review Section
U.S. EPA Region IX
75 Hawthorne Street ENF-4-2
San Francisco, CA, 94105

Attention: Mr. James Munson

Dear Ms. Goforth:

I am writing to clarify the terminology used in the South San Francisco Shoreline Phase I Study Draft Environmental Impact Statement/Report (DEIS/DEIR) to facilitate your office's review of the document.

The Draft Interim Feasibility Report/Environmental Impact Statement for the South San Francisco Shoreline Phase I Study (Shoreline Study) is an integrated document to meet the requirements of both National Environmental Policy Act (NEPA) and the US Army Corps of Engineers' (Corps) planning documents. Integrated documents meet all requirements under NEPA, but the terminology is different in some cases. In accordance with the Corps' SMART Planning Guidance, which is available at http://planning.usace.army.mil/toolbox/smart.cfm, we have adopted the term Tentatively Selected Plan (TSP) for Preferred Alternative at the DEIS stage. In a feasibility study, the TSP is the plan that the Corps is recommending as the Preferred Alternative during the draft public review stage, therefore the TSP is equivalent to the Preferred Alternative. Once this document becomes a Final Feasibility Study/EIS, the TSP/Preferred Alternative will become the Selected Plan/Recommended Plan.

For the Shoreline Study, the TSP/Preferred Alternative is Alternative 3, which is also the Locally Preferred Plan (LPP). In the DEIS/DEIR it is referred to as a TSP to reflect the idea that plan selection or features of the plan may change based on public and agency input.

If you have any questions, please contact me at (415) 503-6822 or Thomas.R.Kendall@usace.army.mil. You may also contact William DeJager at (415) 503-6866 or William.R.DeJager@usace.army.mil.

Sincerely,

Thomas R Kendall, P.E.
Chief, Planning Branch

ID	Issue Text	Response Text
031_EPA_2-1	EPA would have substantially greater concerns if any of the other alternatives were selected. While we support the selection of Alternative 3, we recommend that the Final EIS include more information concerning when and how restoration of ponds A9 - Al5 would occur, as well as how this restoration would be funded.	The USACE signed implementation guidance for WRRDA 2014, Section 1025 on 26 February 2015, which allows it to recommend a USACE project that includes the implementation of ecosystem restoration on USFWS lands. The Final Integrated Document has been revised to reflect this guidance, and explain the implementation responsibilities of the Federal and non-Federal entities, including schedule, cost/funding, construction, monitoring and adaptive management, and operation and maintenance. Funding and scheduling is provided in Chapter 9 and summarized in the Executive Summary.
031_EPA_2-2	We understand that the Corps is awaiting Water Resources Development Act implementation guidance regarding restoration on U.S. Fish and Wildlife Service lands. We recommend that the FEIS commit to full restoration of all ponds in the project area, explain how it would be funded, and provide a timeline for this tidal restoration.	The USACE signed implementation guidance for WRRDA 2014, Section 1025 on 26 February 2015, which allows it to recommend a USACE project that includes the implementation of ecosystem restoration on USFWS lands. The Final Integrated Document has been revised to reflect this guidance, and explain the implementation responsibilities of the Federal and non-Federal entities, including schedule, cost/funding, construction, monitoring and adaptive management, and operation and maintenance. Funding and scheduling is provided in Chapter 9 and summarized in the Executive Summary.
031_EPA_2-3	We also recommend that the FEIS provide additional information regarding operation of the Artesian Slough tide gates and any potential impacts of such operation on the San Jose-Santa Clara Water Pollution Control Plant.	The San Jose Regional Wastewater Facility is anticipating the need to pump effluent in the future as a response to sea level rise with or without the proposed project. The project team is continuing to analyze the configuration and operations of the proposed closure on Artesian Slough to avoid negatively impacting current plant operations or inducing the installation of pumps sooner than would otherwise occur in a "without-project" condition. There would be no other effects to the Facility
031_EPA_2-4	Regarding air quality, we recommend that the FEIS describe how the project would comply with EPA's General Conformity Rule.	Table 4.10-7 (for alternatives 2, 4 and 5) and Table 4.10-8 (for alternative 3) report the maximum daily emissions from construction. Maximum daily emissions were used consistent with the Bay Area Air Quality Management District CEQA Guidelines which has thresholds of significance based on daily maximum. This is the emissions from the day within a given year with the maximum emissions based on the CalEEMod model. Other days within that year have fewer emissions. Therefore multiplying the maximum daily emissions by the number of work days in a year drastically over-estimates annual emissions. Appendix A5 includes the model output for both daily and annual emissions. The maximum annual NOx and ROG for alternatives 2, 4 and 5 is 24 tons per year, and the maximum annual NOx and ROG for alternative 3 is 41 tons per year. These emissions are under the de minimis threshold for federal actions in moderate ozone nonattainment areas. This analysis has been added to Section 4.10.
031_EPA_2-5	Recognizing that the South San Francisco Bay is a mercury rich environment, EPA recommends that actions associated with the Project be closely monitored to avoid remobilization of mercury laden sediment or the creation of environmental conditions that promote bioaccumulation. We recommend that the lead agencies use the most current information available to evaluate the project's design and construction methods to minimize mercury mobilization.	The Shoreline Study is closely coordinated with the SBSP Restoration Project. The SBSP Restoration Project has been concerned about the presence of mercury and the potential for increased methylation of mercury since the beginning of the project in 2003. The results of the SBSP Restoration Project's 10 years of mercury studies is summarized in the Water Quality Section of the Integrated Document (Section 4.5) and discussed in more detail at www.southbayrestoration.org/science/Summary Update on Pond A8 Mercury Studies_Jan 2015 _Final.pdf. This information has been considered by the Shoreline Study team when designing the restoration of the ponds to tidal wetlands. We agree with the commenter that construction should minimize mercury mobilization as much as possible, and would add that it is possibly even more important to minimize the biochemical process that convert mercury into methylmercury (thus making it more available to wildlife). The results of the SBSP Restoration Project indicate, so far, that tidal restoration and improved circulation reduce these process that drive methylation. The monitoring proposed to be included under the Shoreline Study is outlined in the Monitoring and Adaptive Management Plan (Appendix I). The Shoreline Study does not propose to include mercury monitoring as the project will not have a significant impact to mercury mobilization or methylmercury production (see Section 4.5). However, the SBSP Restoration Project's mercury studies will continue until there is additional data to better understand the effects of tidal restoration on the processes that drive methylation and mercury bioaccumulation. The Shoreline Study will coordinate with the SBSP Restoration Project on using the most current data available as part of the project's on-going adaptive management.
031_EPA_2-6	Given the high flood risk in the Alviso Community, we suggest that the FEIS explain how the proposed design complies with the recent Executive Order 13690 - "Establishing a Federal Flood Risk Management" signed by President Obama on January 30, 2015.	EO 13690 amends the existing EO 11988 decision making process. However, as stated in Section 3 of EO 13690, agencies are not to implement the revised process until additional input from stakeholders is solicited and final revised Implementing Guidelines are issued by the Water Resources Council. Upon issuance of final revised Implementing Guidelines, agencies will issue agency specific policies and regulations to implement the revised process. As such, analysis of how the revised policies impact current implementation of EO 11988 has yet to be done. Post Hurricane Katrina and Hurricane Sandy, the USACE incorporates best available science and data, including sea level projects and climate resilience, into our water resources project planning and design. USACE incorporates authorized levels of risk reduction, loading and factors of safety, and risk considerations beyond the criteria and options required by the Federal Flood Risk Management Standard (FFRMS). USACE complies with EO 11988 to include its 8-step decision making process and will use the FFRMS to inform our team's engineering and analysis expertise in developing flood risk management solutions once we are able to implement the revised process. Alternative 3, the USACE Locally Preferred Plan, a 15.2 levee and 30:1 Ecotone, meets the goals of EO 11988. The USACE Locally Preferred Plan or Alternative 3, represents a future 1% design based on the USACE high scenario in 2067. The design elevation of 15.2 feet NAVD88 was determined by the following: Base construction year (2017) 1% water level at Coyote Creek 10.76* Relative Sea

		Level Rise (1992.5** to 2067), USACE High SLR @ 2.06 mm/yr 2.59 Less observed RSLR (1992.5 to 2017) - 0.17 2067 1% water level at Coyote Creek (10.76 + 2.42) 13.18 FENA certification standard (add 2 feet freeboard) 2.00 Alt. 3 design 15.18 , say 15.20 * NAVD88 ** Midpoint of 1983 to 2001 tidal epoch Alternative 3 incorporates the best available science and data, including sea level rise projections and climate resilience, project planning and design by recommending a design base on the USACE high SLR scenario which will meet the FEMA Certification criteria of adding 2 feet to a projected 1% base flood elevation in the year 2067. The 30:1 ecotone represents a nature based flood risk reduction feature for a levee subject to coastal forcing, while creating habitat and providing ecosystem services. Alternative 3 best meets the goals of EO 11988. However, under USACE planning and sea level change polices and guidance, Alternative 3 was not the National Economic Development (NED) plan, which was a 12.5 levee design without the ecotone. This alternative was economically viable and in the federal interest. Additional details on the analysis may be found in Appendix F.
031_EPA_2-7	Page 1-1 of the DEIS incorrectly identifies EPA as a Cooperating Agency. Please correct this in the Final EIS. EPA has not received any request to serve as a Cooperating Agency for this project. Please see the attached Detailed Comments for further discussion of our concerns and recommendations.	The suggested revision to Chapter 1.0 has been made and reference to USEPA as a cooperating agency on this project has been removed.
031_EPA_2-8	LEDPA Determination Page 3-81 of the DEIS identifies Alternative 3 as the least environmentally damaging practicable alternative for this project. While a LEDP A determination is not necessary for authorization ofthis project, EPA supports the selection of Preferred Alternative 3 as the environmentally preferable alternative, and believes it is fully consistent with the standards of the 404(b)(1) Guidelines, including the LEDP A. To facilitate permitting, we recommend that the Final EIS and the 404(b)(1) analysis (Appendix X) more fully demonstrate that Alternative 3 meets these criteria. While alternatives other than Alternative 3 would involve less fill, EPA believes that they would result in other adverse environmental consequences. A fuller documentation of the reasons Alternative 3 has been identified as the LEDP A would be helpful, as it is important for the public and other stakeholders to understand the greater risk of harm and damage inherent in the other action alternatives. Recommendations: In order to better demonstrate the environmental benefits of Alternative 3: - Revise the 404(b)(1) analysis (Appendix X) to address three components ofthe project: levee alignment, levee height, and ecotone vs bench design. Because these components are theoretically independent from each other, discussing each in tum could be a clear way to demonstrate that the final alternative chosen is composed of the least damaging alignment, height, and transition habitat choices. The revised analysis should include an estimate of the acres of fill and the acres of special aquatic sites provided after construction is complete. - Fully address, in Appendix X, the overall impacts to waters of the U.S., impacts to special aquatic sites (e.g. wetlands and mudflats), non-waters impacts, and whether a given component meets the stated project purpose and objectives. - More clearly describe, in Appendix X, how the project area would be restored to a more natural high quality habitat, such as tidal wetlands and high-tide refugia, and provide benefits to species of concern. - Include, in the FEIS, an estimate of the acres of wetlands likely to form in the ecotone after construction. The DEIS includes restoration estimates for various habitat types; however, it does not appear that these numbers account for wetlands likely to develop in the ecotone.	Persuant to USACE requirements for a 404(b)(1) Analysis, the evaluation is completed on the Recommended Plan. Since the Recommended Plan includes the ecotone, the bench will not be discussed in the 404(b)(1). However, the 404(b)(1) Evaluation has been revised and has added information regarding a comparison of the Alternatives for the LEPDA. Additional language on this issue has also been added to the main report.
031_EPA_2-9	Benefits of Ecotone Design for Habitat Restoration Alternative 3 includes the establishment of an ecotone adjacent to the Flood Risk Management levees. It does not appear that that Alternative 2,4 or 5, each of which relies on a bench design and would not provide an ecotone, would meet the stated goal of restoring ecological function and habitat quantity, quality, and connectivity for special status species. It is not clear from the document that the bench habitat would provide adequate high tide refugia or buffer for salt marsh harvest mouse or clapper rail, which is identified in U.S. FWS "The Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California" (Recovery Plan) as a necessary component of marsh restoration for these species Recommendation: Discuss, in the FEIS and Appendix X, the habitat recommendations in the Recovery Plan and clarify whether the bench design would meet high tide refugia and buffer needs for the target species. If not, the FEIS should explain whether/how these alternatives would meet the stated objectives for special status species. Provide a comparative analysis of how the ecotone alternative vs. bench alternatives would meet the stated objectives of restoring special status species habitat.	Text has been added to the report to address this issue in Section 4.7.

031_EPA_2-10	Alternatives/Levee Height The DEIS identifies Alternative 2, with a 12.5 foot or 13.5 foot levee height, as the tentative National Economic Development Plan. EPA understands that the NED Plan represents the alternative identified by the Corps as having the most cost effective levee alignment and the levee height that would generate the greatest net benefits. Section 3.5.4 of the DEIS identifies screening criteria for evaluation of the flood protection measures, such as completeness; effectiveness, efficiency, and acceptability. Alternatives carried forward, including the NED Plan, must meet these screening criteria. The acceptability criterion includes consideration of whether an alternative will be consistent with federal laws and codes. Page 3-80 of the DEIS states that a 13.5' levee height would not meet FEMA levee certification criteria at the end of the plan period in 2067. It is unclear how a levee design that does not meet FEMA accreditation requirements would qualify as an acceptable alternative under the Corps screening criteria. Recommendations: In the FEIS, clarify how FEMA requirements affect the Corps' acceptability screening criteria and explain how the proposed NED Plan levee height of 12.5' or 13.5' would meet the screening criteria, given the apparent conflict with FEMA accreditation requirements.	In terms of providing "100-year protection", Corps projects are analyzed and described in terms of their expected performance, not in terms of levels of protection. There is no minimum level of performance or protection or size required for Corps projects. This is in contrast to FEMA requirements to meet a certain benchmark for insurance purposes. The USACE evaluation process weighs the costs of constructing a project against the benefits, that is, the damages that are prevented. The USACE uses this information to determine the “Federal interest” or the National Economic Development (NED) Plan. The USACE is required to identify the NED Plan as the plan that has the highest benefits for the costs in order to maximize the net national economic development benefits. The NED plan is the default recommendation, but a different plan (called a “locally preferred plan” (LPP)) can be requested for consideration by the USACE and its study partners based on local needs. This LPP request must be approved by the Assistant Secretary of the Army for Civil Works (ASA(CW)). With the Shoreline Phase I Project, the 12.5’ levee height identified as the NED Plan would meet the FEMA “100-year protection” for the initial life of the project. However, as sea-level rises, the level of protection will decrease. This change in benefit level over time was factored into the cost-benefit analysis that established the 12.5’ height as the NED Plan. The Non-Federal Sponsor (NFS) has requested consideration of an LPP that includes a higher levee height of 15.2’. If approved by the ASA(CW), the NFS would pay the cost difference between the NED Plan and the LPP. The additional levee height would maintain the performance level of the levee throughout the entire 50 year life of the project at the equivalent of the “100-year protection” level.
031_EPA_2-11	Sediment Supply As stated in the DEIS, recent United States Geological Survey research indicates a trend in San Francisco Bay, whereby levels of suspended sediments are steadily decreasing and the Bay is becoming less turbid (p. 3-87). However, it should be noted that these studies also indicate that suspended sediment levels vary in the different regions of the Bay, and perhaps fortuitously for the proposed project, the South Bay still retains high suspended sediment concentrations and generally high sedimentation rates. For example, sedimentation in some locations in Pond A21 accumulated over 220 mm in 2 to 3 years. Recommendation: Given the beneficial accretion rates seen in similar adjacent projects, we suggest that the construction implementation be designed to maximize marsh sediment deposit, thus utilizing tidal marsh's natural potential to keep up with sea level rise.	Your comment is noted. Accretion rates and sediment availability will be considered during the next stages of engineering and design. We agree that the construction plan should maximize the use of tidal marsh sediment deposits and take advantage of its natural potential to keep up with sea level change.
031_EPA_2-12	NutrientsSan Francisco Bay is a nutrient-enriched estuary, but has been buffered from the potential negative consequences of elevated nutrient levels by a variety of factors. In the future, projected increases in water clarity and water temperatures will create conditions that could result in adverse impacts in the Bay as a result of high nutrient concentrations, including the potential proliferation of harmful algal specIes.Recommendations:Discuss, in the FEIS, the benefits of levee designs that incorporate transitional zone features, including the creation of tidal marshes, and the ability of these ecosystems to take up nutrients ata high rate.Add the following information to Table 4.5-10, entitled, "Likely Future Status of Water Quality Contaminants in the Shoreline Phase I Study Area":I. For the "Nutrients" block, add the Regional Monitoring Program's Nutrients Strategy: The San Francisco Bay Nutrient Science and Management Strategy is a regional initiative for developing the science needed for informed decisions about managing nutrient loadsand maintaining beneficial uses within the Bay in response to the apparent changes in the Bay's resilience to nutrient loading.2. For the "Algae" block, add the National Coastal Condition Assessment, which will be sampling for harmful algal species in the Bay in 2015.	To respond to this comment, the following text has been added to the FEIS in XX Section [we need to discuss where to put this]: [next paragraph underlined to show that's it additional] The Shoreline Study project will include a large amount of tidal wetland restoration, including a broadly sloped transition zone (ecotone) that will result in the expedited establishment of fringing marsh. Wetlands have long been cited as being effective at reducing nutrient loading in aquatic systems by encouraging sedimentation, taking up nutrients into plant biomass, and through enhanced denitrification. By greatly increasing the amount of tidal wetlands in the South Bay, the project will ultimately enhance the buffering ability of the Bay to offset the projected future trends in water clarity and temperature. The additional plans have been added to the FEIS text as suggested by the reviewer.
031_EPA_2-13	Monitoring and Adaptive Management The DEIS includes a thorough monitoring and adaptive management plan developed based upon the 2006 South Bay Salt Pond Restoration Project (SBSPRP). EPA supports the scientific and adaptive management approach adopted by the SBSPRP to manage the phased restoration of the salt ponds, given the uncertainty that exists in the project area. We are pleased to see the same approach is being applied to the Project. However, the DEIS is unclear on who has responsibility to ensure that the monitoring and adaptive management plan is implemented. The functioning of the levee is integral to the restoration of the salt ponds, and the Corps is responsible for restoration of at least Pond A18; therefore, it appears that the Corps bears at least some responsibility for implementing the plan. Yet, it is unclear how the Corps, FWS, State and the local sponsors will share this responsibility. Recommendation: Clarify, in the FEIS, who would maintain responsibility, including financial responsibility, for implementing the monitoring and adaptive management plan and ensuring the project's success. The FEIS should clearly state which agencies/stakeholders, such as the Corps, FWS, State of California, and/or local sponsors, would take on which responsibilities throughout the fifty year life of the project.	Chapter 9 of the FEIS has been revised to clarify which agencies/stakeholders will be responsible for monitoring, adaptive management, and operation/maintenance/repair/replacement/rehabilitation of the project after construction.

031_EPA_2-14	Artesian Slough Tide Gates and Wastewater Facility NPDES permit All action alternatives in the DEIS include constructing tide gates across Artesian Slough just downstream from the San Jose-Santa Clara Water Pollution Control Plant (Wastewater Facility) outfall. According to page 4-211 of the DEIS, these gates could be closed "in extreme storm events," but the document does not provide sufficient operational information about the tide gates beyond this vague description. We, therefore, cannot evaluate the impact this component of the project may have on water quality and the Wastewater Facility's ability to comply with its NPDES permit (permit # CA0037842). Recommendations: Provide additional information in the FEIS on operation of the Artesian Slough tide gates, including the estimated frequency of closure now and in the future, estimated duration of closure, estimated volume of water the Wastewater Facility would need to hold or otherwise discharge during gate closure, and whether or not gate closure could result in violation of the Wastewater Facility effluent limitations, receiving water limitations, or other permit conditions. Consider identifying how coordination on this project element would be accomplished should extreme storm events occur. Construction and operation of this project element would require extensive coordination with the Wastewater Facility and, possibly, the Regional Water Quality Control Board. We suggest that the FEIS identify how the Corps and local sponsors would coordinate with these entities on this component of the project.	The project team is working with the city of San Jose to analyze the configuration and operations of the proposed closure on Artesian Slough to avoid negatively impacting plant operations. The Master Response for Artesian Slough includes additional information about the proposed tide gates, but the concept level design does not include all the requested operational details requested by EPA. Detailed design is under development.
031_EPA_2-15	Air Quality General Conformity EPA's General Conformity Rule, established under Section 176(c)(4) of the Clean Air Act, provides a specific process for ensuring federal actions will conform with State Implementation Plans to achieve National Ambient Air Quality Standards. Although the DEIS states; "As the project would not result in population or employment growth there would be no conflict with, or obstruction of, air quality plans" (p. 4-460 and elsewhere), this is not the analysis required by the General Conformity Rule. The rule sets de minimis thresholds, depending on the nonattainment status of the region where a federal action will occur. The Bay Area Air Basin is designated moderate non-attainment for EPA's 1997 I-hour ozone standard. As specified in 40 CFR 93.153, the de minimis threshold for federal actions in moderate ozone nonattainment areas is 100 tons per year for NOx and VOCs. Emissions from any of the alternatives might exceed these de minimis standards. For example, under Alternative 2, emissions in 2017 are estimated as 773 lbs per day of NOx (Table 4.10-7), which converts to 141 tons per year if construction occurs over 365 days a year, or 96 tons if construction occurs over 250 days per year. If annual project emissions exceed the de minimis concentrations, the Corps/FWS are required to prepare a general conformity analysis, demonstrating conformity with the applicable State Implementation Plan by one of the methods specified in 40 CFR 93.158. Additionally, the rule requires public notice of a general conformity determination, as stated in 40 CFR 93.156. Recommendation: Determine whether annual project emissions would exceed the de minimus concentrations established for federal actions in moderate ozone attainment areas, thereby requiring a general conformity analysis. If an analysis is required, specify one of the methods provided by 40 CFR 93.158 to demonstrate conformity with the applicable State Implementation Plan. In addition, discuss public participation that may be required.	Table 4.10-7 (for alternatives 2, 4 and 5) and Table 4.10-8 (for alternative 3) report the maximum daily emissions from construction. Maximum daily emissions were used consistent with the Bay Area Air Quality Management District CEQA Guidelines which has thresholds of significance based on daily maximum. This is the emissions from the day within a given year with the maximum emissions based on the CalEEMod model. Other days within that year have fewer emissions. Therefore multiplying the maximum daily emissions by the number of work days in a year drastically over-estimates annual emissions. Appendix S includes the model output for both daily and annual emissions. The maximum annual NOx and ROG for alternatives 2, 4 and 5 is 24 tons per year, and the maximum annual NOx and ROG for alternative 3 is 41 tons per year. These emissions are under the de minimis threshold for federal actions in moderate ozone nonattainment areas. This analysis has been added to Section 4.10.
031_EPA_2-16	Construction Mitigation Measures We are pleased that the DEIS includes air quality avoidance and minimization measures, such as limiting idling to a maximum of 5 minutes, limiting vehicle speeds to 15 mph, and administering traffic control (page: 4-455). Additional measures are available to further reduce air quality impacts. Recommendations: Ensure that construction vehicles use newer and cleaner construction equipment (e.g. Tier 4), or diesel particulate filters on older construction equipment. Use electricity from the grid, rather than portable diesel-powered generators, if possible.	To minimize air quality emission impacts the suggested practices will be added as Avoidance and Minimization Measures for Air Quality. AMM-AIR-5 “Ensure that construction vehicles use newer and cleaner construction equipment (e.g. Tier 4), or diesel particulate filters are installed on older construction equipment.” AMM-AIR-6 “Use electricity from the grid, rather than portable diesel-powered generators, where possible.”

031_EPA_2-17	Flood Protection (Executive Order 13690) On January 30,2015 President Obama issued Executive Order 13690 - Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, which amends Executive Order 11988 - Floodplain Management. Section 6(c) of Executive Order 13690 requires that, rather than basing the floodplain on the area subject to a one percent or greater chance of flooding in any given year, the floodplain be established using one of the following approaches: (1) Unless an exception is made under paragraph (2), the floodplain shall be: (i) the elevation and flood hazard area that result from using a climate-informed science approach that uses the best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science. This approach will also include an emphasis on whether the action is a critical action as one of the factors to be considered when conducting the analysis; (ii) the elevation and flood hazard area that result from using the freeboard value, reached by adding an additional 2 feet to the base flood elevation for non-critical actions and by adding an additional 3 feet to the base flood elevation for critical actions; (iii) the area subject to flooding by the 0.2 percent annual chance flood; or (iv) the elevation and flood hazard area that result from using any other method identified in an update to the Federal Flood Risk Management Standards. For more information on go to: https://www.fema.gov/federal-flood-risk-management-standard-ffrms Recommendation: Clarify how Alternative 3 would meet the goals of Executive Order 13690, and discuss any changes to the project necessary to meet the stated goals. Compare the ability of Alternative 3 to to meet the goals of the EO with that of the other alternatives. For more information on go to : https://www.fema.gov/federal-flood-risk-management-standard-ffrms.	EO 13690 amends the existing EO 11988 decision making process. However, as stated in Section 3 of EO 13690, agencies are not to implement the revised process until additional input from stakeholders is solicited and final revised Implementing Guidelines are issued by the Water Resources Council. Upon issuance of final revised Implementing Guidelines, agencies will issue agency specific policies and regulations to implement the revised process. As such, analysis of how the revised policies impact current implementation of EO 11988 has yet to be done. Post Hurricane Katrina and Hurricane Sandy, the USACE incorporates best available science and data, including sea level projects and climate resilience, into our water resources project planning and design. USACE incorporates authorized levels of risk reduction, loading and factors of safety, and risk considerations beyond the criteria and options required by the Federal Flood Risk Management Standard (FFRMS). USACE complies with EO 11988 to include its 8-step decision making process and will use the FFRMS to inform our team's engineering and analysis expertise in developing flood risk management solutions once we are able to implement the revised process. Alternative 3, the USACE Locally Preferred Plan, a 15.2 levee meets the goals of EO 11988. The USACE Locally Preferred Plan or Alternative 3, represents a future 1% design based on the USACE high scenario in 2067. The design elevation of 15.2 feet NAVD88 was determined by the following: Base construction year (2017) 1% water level at Coyote Creek 10.76* Relative Sea Level Rise (1992.5** to 2067), USACE High SLR @ 2.06 mm/yr 2.59 Less observed RSLR (1992.5 to 2017) - 0.17 2067 1% water level at Coyote Creek (10.76 + 2.42) 13.18 FENA certification standard (add 2 feet freeboard) 2.00 Alt. 3 design 15.18 , say 15.20 * NAVD88 ** Midpoint of 1983 to 2001 tidal epoch Alternative 3 incorporates the best available science and data, including sea level rise projections and climate resilience, project planning and design by recommending a design base on the USACE high SLR scenario which will meet the FEMA Certification criteria of adding 2 feet to a projected 1% base flood elevation in the year 2067. Alternative 3 best meets the goals of EO 11988. However, under USACE planning and sea level change polices and guidance, Alternative 3 was not the National Economic Development (NED) plan, which was a 12.5 levee design without the ecotone. This alternative was economically viable and in the federal interest. Additional details on the analysis may be found in Appendix F.
031_EPA_2-18	The DEIS identifies a 50 year planning horizon for the project; however, the useful life of the levees could extend well beyond 50 years, if designed appropriately to accommodate expected sea level rise. Because the analysis only extends to 2067, it is not clear how the levees would perform beyond this period, especially given the expected acceleration of sea level rise. Recommendation: Discuss the level of flood protection provided by the alternate levee heights (12.5 ', 13.5', and 15.2') under each of the three sea level rise scenarios out to year 2100.	USACE ETL 100-2-1, Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation prescribes a project planning horizon of 100 years. Performance of the Alternatives against the 1% bayside water level were assessed across the range of sea level rise scenarios. The future 1% water level is uncertain, and dynamic. Alternatives 2 and 3 will provide a level of risk reduction for the 1 % bayside water level through the year 2100 under the low or observed SLR scenario. The current FEMA certification requirement of 2 feet of freeboard will also be maintained, with the 2100 1% projected bayside water level at 11.3, Alternatives 2 and 3 are above the required 1% + 2 foot of freeboard (11.3 + 2 = 13.2). Alternatives 2 and 3 will provide a level of risk reduction for the 1 % bayside water level through the year 2100 under the high SLR scenario. Both alternatives provide risk reduction against the 1% bayside water level through 2071 and 2094 where the projected 1% water level reaches the design elevations for Alternatives 2 and 3 respectively. The 2 foot FEMA certification requirement is maintained until 2033 and 2067 for Alternatives 2 and 3. Alternative 2 and all lower levee alternatives potentially would have adaptive capacity until 2079 under a high SLR scenario up to elevation 16.0 NAVD 88 which has been established as an adaptation threshold for the project. Considering this threshold, the 2 foot FEMA freeboard requirement could not be maintained past 2079 without a significant expansion of the project to include fluvial and stormwater interior drainage in the project area.
031_EPA_2-19	Species of Concern and Habitat Assessment/Valuation Transition Zone Habitat The establishment of an ecotone adjacent to the levee, as proposed in Alternative 3, can be expected to provide substantial ecological benefits, especially for special status species such as the steelhead trout, salt marsh harvest mouse, western snowy plover, california least tern, and california clapper rail, which are identified as possibly using the project site (page 2-7). The DEIS references the Tidal Marsh Recovery Plan, which states that lack of high tide refugia habitat is a threat for both salt marsh harvest mouse and California clapper rail. The Recovery Plan also identifies creation of ecotone habitat as necessary for deli sting (see specifically Sections ILb.7, ILe.7, and IILa in the Recovery Plan). The bench habitat described in Alternatives 2, 4, and 5 does not appear to provide suitable high tide refugia or buffer habitat for salt marsh harvest mouse and California clapper rail, as called for in the Recovery Plan. Page 28 of the Recovery Plan states that, "Levees generally are too steep, narrow, and weedy to be high quality high-tidal refugia for tidal marsh animals." Recommendations: In the FEIS, expand on the habitat restoration recommendations in the Recovery Plan, including the need for high tide refugia and buffer habitat, and explain how they would be supported by Alternative 3 versus the other alternatives. Describe the total width, the width minus the 15' vegetation maintenance zone, and the expected vegetative condition of unmaintained habitat for each alternative.	Text has been added to the report to address this issue in Section 4.7. See also the response to comment 027_RWQCB_2-13 for discussion of project features in relation to the Recovery Plan.

031_EPA_2-20	Habitat Assessment The DEIS does not clearly explain how the habitat assessment/valuation was performed. Specifically, the Combined Habitat Assessment Protocols Summary in Appendix J does not sufficiently describe the action alternatives, making it difficult to assess how the habitat values ofthe different alternatives were evaluated. Further, EPA is aware that an assessment using the California Rapid Assessment Method was performed for this project, yet it is not clear how this information was used in the habitat valuation. It appears that the habitats were scored independently and then summed to provide an estimated benefit for a given alternative. The benefit of the ecotone habitat is not just the value of that habitat type alone. The greater value of this habitat is that its presence increases the value of the adjacent marsh habitat. Many species found within tidal marshes need high tide refugia, including salt marsh harvest mouse and california clapper rail. Without high tide refugia, i.e., ecotone habitat, the marsh habitat is of lower quality for these species. In addition, ecotone habitat can filter pollutants and provide a buffer between urbanized areas and the marsh, thereby increasing the overall quality and functioning of the marsh itself. Therefore, restored marsh habitat in alternatives without ecotone habitat (i.e. alternatives 2, 4, and 5). should have been given lower scores than restored marsh habitat in alternatives with ecotone habitat (i.e. preferred alternative 3). Appendix A references the 1999 Baylands Ecosystem Habitat Goals Report which "presents recommendations for the kinds, amounts, and distribution of wetlands and related habitats". We note that a technical update to the Baylands Ecosystem Habitat Goals Report is expected March 2015. Recommendations: Expand on the discussion of ecotone habitat value by incorporating habitat restoration recommendations in the Recovery Plan. If the updated Baylands Ecosystem Habitat Goals Report Technical Update is released before the FEIS is completed, the FEIS should reference ecotone habitat recommendations from this report as well. The Baylands Ecosystem Habitat Goals Report Technical Update is expected March 2015. http://www.sfbayjv.org/aboutstrategy. php The FEIS should discuss how the restored marsh habitat was valued for each alternative. The restored marsh habitat in Alternatives 2, 4, and 5 should be scored lower than that of Alternative 3 due to the lack of suitable ecotone habitat. This comparison should also identify whether the bench and or ecotone habitat will meet high tide refugia and buffer recommendations identified the Recovery Plan. Update Appendix J to include all action alternatives.	The CHAP report has been revised. However, the model could not be revised at this point due to resource limitations. Your discussion regarding high tide refugia and the ecotone is valid and will be used as supplemental information to the CHAP analysis.
031_EPA_2-21	Compensatory Mitigation The DEIS indicates that the Corps is not proposing compensatory mitigation for wetland impacts because the project will result in the eventual restoration of many hundreds of acres. However, it can take many decades for tidal marsh habitat to develop and the DEIS identifies a time lag between anticipated project impacts and successful habitat restoration. While this impact is identified as less than significant because the project will result in a net increase in wetlands in the long term, the discussion in the DEIS is not adequate to demonstrate that mitigation is not needed for the loss of wetlands in the near-term. Recommendations: The FEIS should include additional discussion of likely short-term wetland impacts and further justification for the conclusion that compensatory mitigation is not required. Specifically, the FEIS should identify the acres of wetlands likely to develop within 3-5 years after predicted construction-related impacts. This can be done by estimating the acreage that will fall within the tidal range known to support marsh vegetation. If this acreage of expected short-term wetland development is less than the acreage of wetlands fill, then the FEIS should estimate how long it will take to achieve no net loss of wetlands.	The ecotone would assist in temporal impact mitigation by replacing relatively rapidly with tidal marshes much of the non-tidal wetland lost due to initial levee construction, and both ponds A12 and A18 will now be restored in the first phase after completion of the FRM. The ecotone is probably not the most cost-effective way of providing this temporal mitigation, so this is not a primary argument for building the ecotone. The ecological values of the ecotone are stated in the draft report but the habitat evaluation method did not find these larger than the total fish and wildlife value produced in its absence.
031_EPA_2-22	Methylmercury Page 4-162 of the DEIS states that, as part of the South Bay Salt Pond Restoration Project (SBSPRP), "studies are currently underway to evaluate the long-term effects, recent data suggest that methymercury (MeHg) concentration would decrease after restoration of tidal habitat". These studies also indicate MeHg increases following levee breaches to restore tidal action to salt ponds are temporary. In addition, the South San Francisco Bay is located in a mercury (Hg)-rich environment due to historic and continuing run off from the New Almaden Quicksilver Mine. Given these conditions, management actions associated with the salt pond restoration (e.g. levee breaches) may remobilize mercury laden sediments. This remobilization of mercury could create environmental conditions that increase or decrease MeHg production and bioaccumulation. In order to continue to restore tidal wetlands, the SBSPRP monitors changes in the distribution, speciation and bioaccumulation of Hg that could be caused by project actions. Recommendations: Use the most current information from the SBSPRP to evaluate the South Bay Shoreline levee's design and construction to minimize Hg mobilization and bioaccumulation.	We agree with the commenter that construction should minimize mercury mobilization as much as possible. The Shoreline Study team's expectation is that while steps can be taken to minimize construction-related mobilization, tidal restoration will cause some scour and deposition of mercury-laden sediments through natural processes. However, the mercury data from the SBSP Restoration Project indicated that, in the long-run, tidal restoration is likely to minimize the biochemical process that convert mercury into methylmercury thus decreasing mercury up take into the food web.

031_EPA_2-23	The discussion in the DEIS of the potential for increased exposure to methylmercury (MeHg) resulting from the project was focused primarily on construction-related mobilization of MeHg. The document did not discuss whether fish, birds, and invertebrates using the restored marshes would likely be exposed to higher levels of MeHg than under current conditions. Recommendations: Clarify, in the FEIS, whether fish, birds, and invertebrates using the restored marshes would likely be exposed to higher levels of MeHg than under pre-construction conditions. We recommend that the FEIS demonstrate whether restored marshes would have lower rates of MeHg production than under pre-construction conditions.	For this Integrated Document, including the FEIS, the Shoreline Study relies on the best available information on mercury dynamics in the south bay. This data is largely focused on bird eggs and fish. As discussed in “Food Web Dynamics” in the Water Quality Section 4.5 (pp. 4-132-134 of the Integrated Document), based on the currently available data, the Shoreline Study expects that in the longer-term tidal restoration will not increase mercury methylation above rates that already exist in wetlands in the south bay and opening the ponds to the tides may very likely reduce methylation rates. The SBSP Restoration Project continues to study mercury dynamics and the Shoreline Study Monitoring and Adaptive Management Plan outlines a process that integrates the Shoreline project with the science and data available from the SBSP Restoration Project to bring as much clarity as possible to the understanding of south bay mercury dynamics.
031_EPA_2-24	Aquatic Biological Resources/State Permitting The Aquatic Biological Resources (ABR) Section identifies consistency with the Recovery Plan as a significance criterion; however, the impact discussion simply states that, since the Recovery Plan does not cover aquatic species, the project will not conflict with its provisions (pag: 4-234). In addition, consistency with the Recovery Plan is not sufficiently discussed in the Terrestrial Biological Resources (TBR) Section. The Recovery Plan clearly addresses habitats covered under the proposed project, and one of the primary objectives of the project is to restore habitat for special status species addressed in the Recovery Plan (i.e. salt marsh harvest mouse and California clapper rail). The impact significance thresholds for the Aquatic and Terrestrial Biological Resources sections should also identify any conflicts with Regional Board and BCDC policies or regulations since the project would require permitting by both of these state agencies. Recommendations: Discuss project consistency with the Recovery Plan either in the Aquatic and Terrestrial Biological Resources Sections of the FEIS. This analysis should include discussion of whether the ecotone and bench habitats are consistent with the recommendations for high tide refugia and buffer habitats. Incorporate Regional Board and BCDC policy and regulation considerations in the impact analysis.	The approach of the draft and final reports is to indicate inconsistencies with other plans as impacts in Chapter 4, and to summarize consistency with laws, regulations, and plans in Chapter 8. Text has been added in both chapters in response to this comment. Regulatory and plan information in subchapter 4.6 is noted to apply to subchapter 4.7 and is not repeated there. In some cases the reader is referred to other analyses (CZMA Consistency Determination and responses to RWQCB comments) for a discussion of consistency.

032_BCC_2

From: Emily Renzel <marshmama2@att.net>
Sent: Monday, February 23, 2015 5:56 PM
To: BurtonEvans, Jessica L SPN; Brenda.Buxton@scc.ca.gov; Shoreline Environment SPN; MichaelMartin@valleywater.org; DeJager, William R SPN
Subject: [EXTERNAL] Comments on the Shoreline Study

Dear Ms. BurtonEvans, Mr. Martin, Ms. Buxton, and Mr. DeJager:

Thank you for the time extension and the opportunity to comment on the Shoreline Feasibility Study EIS/EIR. I certainly concur with more detailed comments provided by Eileen McLaughlin as well as the Citizens Committee to Complete the Refuge and would like to add the following comments.

The Shoreline Feasibility Study/EIS/EIR is most unwieldy. The information is provided in a manner that hinders the public's ability to provide substantive comments. Information regarding the project description, project impacts, and proposed mitigation measures are interspersed with economic analyses and rationale pertinent to the USACE, but not pertinent to the NEPA and CEQA process. As an example, plan and cross-section views of the proposed alternatives are located in different portions of the report, cross sections appearing in Chapter 3, while plan views are located later in the document. 1

The document fails to consider an alternative that would provide for future widening of the Coyote Creek floodplain, thus foreclosing future opportunities to address fluvial flood issues within the City of San Jose. 2

The project proposal is to phase mitigation for the proposed levee, with construction of bench or ecotone habitat occurring after levee construction has been completed. No mitigation measures are proposed to provide refugia for species in the period between levee construction/and habitat loss due to "restoration" activities. As an example the EIS states (page 4-295):
" Loss of SMHM and salt marsh wandering shrew habitat due to construction of the FRM levees would be significant absent the provision for the expansion of restored tidal marsh 3
the FRM levees promotes in adjacent ponds. The project would provide high-quality habitat, which would benefit not only these species but other wetland species.

Tidal marsh habitat created through Pond A18 ecosystem restoration would provide more habitat for these species than what would be lost as a result of the levee construction activity habitat impacts. The project, then, would “self-mitigate” for impacts related to the loss of habitat. Although the tidal marsh habitat would not be established immediately,

this impact is not considered significant since the project would not result in a net loss of habitat over time." [emphasis added]

The mitigation measure provided do not adequately reduce the significant adverse impacts of the proposed project on federally listed species to a "less than significant" level because the mitigation measures do not adequately provide for mitigation of impacts in the interim between construction impacts and habitat establishment.

The document should also clarify in a concise statement exactly what mitigation components the Corps assumes full responsibility for. Right now cost-shares are mentioned and the Corps has also stated that those cost shares do not extend beyond 10 years after mitigation elements are initiated. What if there are problems? Is USFWS left holding the bag??? 4

Sincerely,
Emily M. Renzel, Coordinator
Baylands Conservation Committee
1056 Forest Avenue
Palo Alto, CA 94301
<marshmama2@att.net>

ID	Issue Text	Response Text
032_BCC_2-1	The Shoreline Feasibility Study/EIS/EIR is most unwieldy. The information is provided in a manner that hinders the public's ability to provide substantive comments. Information regarding the project description, project impacts, and proposed mitigation measures are interspersed with economic analyses and rationale pertinent to the USACE, but not pertinent to the NEPA and CEQA process. As an example, plan and cross-section views of the proposed alternatives are located in different portions of the report, cross sections appearing in Chapter 3, while plan views are located later in the document.	The USACE's Planning Modernization initiative under its Civil Works Transformation program requires the USACE to develop integrated feasibility reports and NEPA documents. Integrated documents have also been required by USACE South Pacific Division policy since 2010. In order to improve the readability and navigability of the integrated document, the Final report will include an annotated table of contents that provides an overview of the information included in each chapter, and indicates where to find information pertaining to the USACE planning process and NEPA/CEQA process.
032_BCC_2-2	The document fails to consider an alternative that would provide for future widening of the Coyote Creek floodplain, thus foreclosing future opportunities to address fluvial flood issues within the City of San Jose.	See Master Response regarding Coyote Creek Levee Alignment
032_BCC_2-3	The project proposal is to phase mitigation for the proposed levee, with construction of bench or ecotone habitat occurring after levee construction has been completed. No mitigation measures are proposed to provide refugia for species in the period between levee construction/and habitat loss due to "restoration" activities. As an example the EIS states (page 4-295): " Loss of SMHM and salt marsh wandering shrew habitat due to construction of the FRM levees would be significant absent the provision for the expansion of restored tidal marsh the FRM levees promotes in adjacent ponds. The project would provide high-quality habitat, which would benefit not only these species but other wetland species. Tidal marsh habitat created through Pond A18 ecosystem restoration would provide more habitat for these species than what would be lost as a result of the levee construction activity habitat impacts. The project, then, would “self-mitigate” for impacts related to the loss of habitat. Although the tidal marsh habitat would not be established immediately, this impact is not considered significant since the project would not result in a net loss of habitat over time." [emphasis added] The mitigation measure provided do not adequately reduce the significant adverse impacts of the proposed project on federally listed species to a "less than significant" level because the mitigation measures do not adequately provide for mitigation of impacts in the interim between construction impacts and habitat establishment.	To jumpstart the restoration of tidal marsh, the Project will now open both Ponds A12 and A18 to tides in the first phase of restoration immediately after the construction of the FRM. The ecotone in these ponds will quickly develop tidal marsh on its own in the tidal zone. The portion of the ecotone at the elevation of upper marsh and marsh-upland transition will be planted to accelerate refugia habitat formation. This is expected to create approximately 46 acres of marsh habitat within a year of breaching. The outboard levees of these ponds will be lowered to approximately MHHW as the ponds are breached. This lowered levee surface would be quickly colonized by pickleweed as is expected to provide another 18 acres of habitat. These 64 acres of tidal marsh will provide important habitat and connectivity while the ponds accumulate sediment necessary to transform to a full tidal marsh.
032_BCC_2-4	The document should also clarify in a concise statement exactly what mitigation components the Corps assumes full responsibility for. Right now cost-shares are mentioned and the Corps has also stated that those cost shares do not extend beyond 10 years after mitigation elements are initiated. What if there are problems? Is USFWS left holding the bag???	The USACE signed implementation guidance for WRRDA 2014, Section 1025 on 26 February 2015, which allows it to recommend a USACE project that includes the implementation of ecosystem restoration on USFWS lands. The Final EIS will be revised to reflect this guidance, and explain the implementation responsibilities of the Federal and non-Federal entities, including schedule, cost/funding, construction, monitoring and adaptive management, and operation and maintenance. This information will be provided in Chapter 9 and summarized in the Executive Summary. The report will recommend USACE cost sharing of the tidal restoration of Ponds A9-15 and A18, but not the ecotone.

033_CDFW

From:	Patin, Reanna@Wildlife <Reanna.Patin@wildlife.ca.gov>
Sent:	Monday, February 02, 2015 4:33 PM
To:	michael.martin@valleywater.org
Cc:	joseph_terry@fws.gov; mil; Shoreline Environment SPN; Glendening, Susan@Waterboards; Schane, Tami@Wildlife; Blinn, Brenda@Wildlife
Subject:	[EXTERNAL] South San Francisco Bay Shoreline Phase I Study SCH#2006012020
Attachments:	South San Francisco Bay Shoreline Phase I Study SCH#2006012020-Martin-SCHANE020215.pdf

Mr. Martin,

Please see the attached letter. Original to follow.

Thank you,

Reanna Patin
Habitat Conservation Secretary
Bay Delta Region
California Department of Fish and Wildlife
7329 Silverado Trail
Napa, CA 94558
Phone: (707) 944-5566

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
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(707) 944-5500
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***EDMUND G. BROWN JR.**, Governor*
***CHARLTON H. BONHAM,** Director*

February 2, 2015

Mr. Michael Martin
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
Michael.Martin@valleywater.org

Dear Mr. Martin:

Subject: South San Francisco Bay Shoreline Phase I Study, Draft Interim Feasibility Report and Environmental Impact Statement/Report, SCH #2006012020, Santa Clara County

The California Department of Fish and Wildlife (CDFW) has reviewed the draft Interim Feasibility Report and Environmental Impact Statement/Report (EIS/EIR) for the South San Francisco Bay Shoreline Phase I Study (Project), for which the U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS) are acting as co-Lead Agencies under the National Environmental Policy Act (NEPA), and for which the Santa Clara Valley Water District (SCVWD) is acting as the Lead Agency under the California Environmental Quality Act (CEQA). The document was received in our office on December 22, 2014.

CDFW is a Trustee Agency pursuant to CEQA Section 15386 with responsibility under CEQA for commenting on projects that could affect biological resources. As trustee for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of the fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species for the benefit and use by the people of California. CDFW also acts as a Responsible Agency pursuant to CEQA Section 15381 if a project requires discretionary approval, such as issuance of a California Endangered Species Act (CESA) Permit (Fish and Game Code Section 2080 et seq.), or Lake and Streambed Alteration Agreement (LSAA) (Fish and Game Code Section 1600 et seq.). CDFW is submitting comments on the draft EIS/EIR as a means to inform SCVWD of our concerns regarding sensitive resources which could potentially be affected by the Project.

Project Description

The proposed Project study area is located between Alviso Slough/Guadalupe River and Coyote Creek, in Santa Clara County. The proposed Project area includes the Water Pollution Control Plant (WPCP), now called the San Jose-Santa Clara Regional Wastewater Facility, and the Community of Alviso, as well as the portions of the Alviso Pond Complex containing Ponds A9-A15 and A18. Portions of the Project are located on the Don Edwards San Francisco Bay National Wildlife Refuge managed by USFWS.

The purpose of the proposed Project is to address the risk to urbanized infrastructure, including transportation corridors, wastewater treatment plants, and the Community of Alviso and surrounding areas along the shoreline that are subject to flooding caused by having large areas of low-lying terrain bordered by severely degraded non-engineered dikes that were originally

designed and constructed for commercial salt ponds. Components of the proposed Project include an Alviso North levee alignment, a WPCP South levee alignment, a 30:1 ecotone adjacent to Ponds A12, A13, and A18, and a tidal flood gate at Artesian Slough.

The draft EIS/EIR describes the roles and responsibilities of the federal and non-federal agencies involved in the Project, in terms of NEPA, CEQA, and compliance with other environmental laws. However, due to uncertainties associated with the pending approval of the Water Resources Reform and Development Act (WRRDA) of 2014 and language in Section 1025 Implementation Guidance regarding restoration activities on federal lands, it is unclear (as of the release of this draft EIS/EIR in December 2014), as to which of the federal and non-federal agencies will fund and implement the planning, design, and construction of various elements of the Project.

Biological Resources

The draft EIS/EIR has identified a variety of biotic habitats located both within and in the vicinity of the Project, including tidal open water, mudflat, ponds [including legacy ponds (former sewage ponds that are no longer used and have reverted to wetlands), sewage treatment ponds, circulation ponds and high-salinity batch ponds], tidal and non-tidal salt marsh, brackish marsh, muted tidal/diked marsh, freshwater marsh, seasonal wetland, riparian/creek corridor, upland and levee, as well as developed and landfill areas.

The proposed Project area is known to support a variety of fish and wildlife species, including the state fully protected (pursuant to Fish and Game Code Section 3511) salt marsh harvest mouse (*Reithrodontomys raviventris raviventris*), American peregrine falcon (*Falco peregrinus anatum*), California black rail (*Laterallus jamaicensis coturniculus*), California brown pelican (*Pelecanus occidentalis californicus*), California Ridgway's rail (*R. obsoletus obsoletus*), California least tern (*Sterna antillarum browni*), golden eagle (*Aquila chrysaetos*), and white-tailed kite (*Elanus caeruleus*); the state candidate (currently under emergency listing as an endangered species) tricolored blackbird (*Agelaius tricolor*); the state threatened longfin smelt (*Spirinchus thaleichthys*); the federally threatened Central California Coast steelhead (*Oncorhynchus mykiss*) and green sturgeon (*Acipenser medirostris*); the federally threatened and state species of special concern western snowy plover (*Charadrius alexandrinus nivosus*); and the state species of special concern Central Valley fall-run/late fall-run Chinook salmon (*O. tshawytscha*), Alameda song sparrow (*Melospiza melodia* pusillula), American white pelican (*P. erythrorhnchos*), ashy storm petrel (*Oceanodroma homochroa*), black tern (*Chlidonias niger*), Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), California yellow warbler (*Dendroica petechia brewsteri*), common loon (*Gavia immer*), grasshopper sparrow (*Ammodramus savannarum*), Least bittern (*Ixobrychus exilis*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), purple martin (*Progne subis*), redhead (*Aythya Americana*), San Francisco common yellowthroat (*Geothlypis trichas sinuosa*), Vaux's swift (*Chaetura vauxi*), western burrowing owl (*Athene cunicularia hypugea*), and yellow rail (*Coturnicops noveboracensis*).

The proposed Project area has the potential to support the state species of special concern salt marsh wandering shrew (*Sorex vagrans halicoetes*), Barrow's goldeneye (*Bucephala islandica*), black skimmer (*Rynchops niger*), and short-eared owl (*Asio flammeus*); and the state fully protected bald eagle (*Haliaeetus leucocephalus*). The proposed Project area is known to

support a few plant species listed under the California Native Plant Society's California Rare Plant Rank (CRPR) system, including Congdon's tarplant (*Centromadia parryi* ssp. *congdoni*), small spikerush (*Eleocharis parvula*), and Hall's bush-mallow (*Malacothamnus halli*).

Longfin Smelt: The draft EIS/EIR states that in-water construction activities, including outboard levee breaches and pilot channel excavation, would be conducted between June 1 and November 30, and that there is a potential for out-drifting longfin smelt larvae to be present in aquatic portions of the Project area during the early portion of that instream work window. The document also states that excavation of the pilot channel could potentially entrain longfin smelt larvae, juveniles, and adults, resulting in mortality. The draft EIS/EIR also discusses other types of impacts that could result from the Project, including possible temporary displacement of aquatic species from occupied habitats, modification of water temperatures and dissolved oxygen levels resulting from the temporary increased sedimentation and turbidity levels that may occur during Project construction, as well as the temporary reduction of prey resources and increases in post-breach salinities. Please be advised that any activities that may result in take of a state-listed species are subject to Section 2081 of the Fish and Game Code. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". Therefore, CDFW recommends that the document be revised to state that the Project proponent will consult with CDFW and submit an application for a 2081(b) Incidental Take Permit if needed for activities that may result in take of longfin smelt and any other CESA-listed species. 1

Salt Marsh Harvest Mouse: The draft EIS/EIR states that activities such as the removal of vegetation that salt marsh harvest mouse uses for cover, the direct mortality from construction equipment, and earth movement activities could all result in impacts to salt marsh harvest mouse individuals. The document states that on federal lands (in this case, the USFWS Refuge), salt marsh harvest mouse may be captured and relocated, based on provisions of the USFWS' (not yet finalized) Biological Opinion and coordination with the USFWS Ecological Services office. The document also acknowledges the state fully protected status of this species and states that capture and relocation of this species would not be allowed in areas not under federal ownership. CDFW recommends that the document be revised to ensure that take of the salt marsh harvest mouse, as a fully protected species, is avoided pursuant to Section 4700 of the Fish and Game Code throughout the Project area. 2

For example, a portion of mitigation measure M-TBR-2a describes a method which would be implemented in areas not under federal ownership, to address the manual removal of vegetation on a gradual and progressive basis, such that the advancing front of vegetation removal would move toward vegetation that would not be disturbed. This method, if implemented correctly, would allow individual salt marsh harvest mice to relocate themselves to adjacent vegetation as they seek shelter, and avoid take as defined under Section 86 of the Fish and Game Code. CDFW recommends use of this measure in all areas (both federal land and non-federal land) of the Project containing habitat suitable for salt marsh harvest mouse to avoid the potential for take of this fully protected species.

Burrowing Owl: To address potential impacts to burrowing owl, the draft EIS/EIR states that mitigation measure M-TBR-2d would be implemented. M-TBR-2d refers to survey protocols described in the California Burrowing Owl Consortium's Burrowing Owl Survey and Mitigation Guidelines (1993) and passive relocation. CDFW recommends that effective burrowing owl 3

avoidance, minimization, and mitigation measures consistent with the Santa Clara Valley Habitat Plan/Natural Communities Conservation Plan (Habitat Plan) be included in the EIR/EIS. The EIR/EIS should specify that take of burrowing owl will be avoided, and include appropriate and effective minimization measures based on the best available science that are consistent with Appendix M of the Habitat Plan. Please be advised that CDFW cannot authorize owl relocation, including passive eviction, and that this activity is not permissible under the Burrowing Owl Conservation Strategy (except under a specific exception pertaining to a positive growth trend in the burrowing owl population, as described in Chapter 6 of the Habitat Plan). CDFW recommends that the section in the draft EIS/EIR addressing burrowing owl be revised to be consistent with Appendix M of the Habitat Plan.

CDFW appreciates the opportunity to comment on the USACE/USFWS/SCVWD's Draft Interim Feasibility Report and Environmental Impact Statement/Report (EIS/EIR) for the South San Francisco Bay Shoreline Phase I Study Project. CDFW staff is available to meet with you to further clarify our comments and provide technical assistance on any changes necessary to protect resources. If you have any questions, please contact Ms. Tami Schane, Environmental Scientist, at (415) 831-4640 or tami.schane@wildlife.ca.gov; or Ms. Brenda Blinn, Senior Environmental Scientist (Supervisory), at (707) 944-5541, or brenda.blinn@wildlife.ca.gov.

Sincerely,

Scott Wilson
Regional Manager
Bay Delta Region

cc: State Clearinghouse

Mr. Joseph Terry
U.S. Fish and Wildlife Service
Joseph_terry@fws.gov

Mr. William DeJager
U.S. Army Corps of Engineers
William.R.DeJaer@usace.army.mil
ShorelineEnvironment@usace.army.mil

Ms. Susan Glendening
San Francisco Regional Water Quality Control Board
SGlendening@waterboards.ca.gov

ID	Issue Text	Response Text
033_CDFW-1	Longfin Smelt: The draft EIS/EIR states that in-water construction activities, including outboard levee breaches and pilot channel excavation, would be conducted between June 1 and November 30, and that there is a potential for out-drifting longfin smelt larvae to be present in aquatic portions of the Project area during the early portion of that instream work window. The document also states that excavation of the pilot channel could potentially entrain longfin smelt larvae, juveniles, and adults, resulting in mortality. The draft EIS/EIR also discusses other types of impacts that could result from the Project, including possible temporary displacement of aquatic species from occupied habitats, modification of water temperatures and dissolved oxygen levels resulting from the temporary increased sedimentation and turbidity levels that may occur during Project construction, as well as the temporary reduction of prey resources and increases in post-breach salinities. Please be advised that any activities that may result in take of a state-listed species are subject to Section 2081 of the Fish and Game Code. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". Therefore, CDFW recommends that the document be revised to state that the Project proponent will consult with CDFW and submit an application for a 2081(b) Incidental Take Permit if needed for activities that may result in take of longfin smelt and any other CESA-listed species.	The project proponents recognize that the project may result in 'take' of the state listed longfin smelt. A number of Avoidance and Minimization Measures are incorporated into the project to avoid impacts to longfin smelt, including seasonal restrictions, working at low tide, and sediment control. The project proponents will consult with the Department of Fish and Wildlife and submit an application for an Incidental Take Permit prior to construction if necessary. The document will be revised to state as such.
033_CDFW-2	Salt Marsh Harvest Mouse: The draft EIS/EIR states that activities such as the removal of vegetation that salt marsh harvest mouse uses for cover, the direct mortality from construction equipment, and earth movement activities could all result in impacts to salt marsh harvest mouse individuals. The document states that on federal lands (in this case, the USFWS Refuge), salt marsh harvest mouse may be captured and relocated, based on provisions of the USFWS' (not yet finalized) Biological Opinion and coordination with the USFWS Ecological Services office. The document also acknowledges the state fully protected status of this species and states that capture and relocation of this species would not be allowed in areas not under federal ownership. CDFW recommends that the document be revised to ensure that take of the salt marsh harvest mouse, as a fully protected species, is avoided pursuant to Section 4700 of the Fish and Game Code throughout the Project area. For example, a portion of mitigation measure M-TBR-2a describes a method which would be implemented in areas not under federal ownership, to address the manual removal of vegetation on a gradual and progressive basis, such that the advancing front of vegetation removal would move toward vegetation that would not be disturbed. This method, if implemented correctly, would allow individual salt marsh harvest mice to relocate themselves to adjacent vegetation as they seek shelter, and avoid take as defined under Section 86 of the Fish and Game Code. CDFW recommends use of this measure in all areas (both federal land and non-federal land) of the Project containing habitat suitable for salt marsh harvest mouse to avoid the potential for take of this fully protected species.	The method of vegetation removal described in M-TBR-2a is required for both federal and non-federal lands to avoid impacts to SMHM. The document has been updated to separate this requirement from the provision that mice be moved on Federal lands based on provisions of the USFWS' Biological Opinion and in coordination with the USFWS Ecological Services office, should mice be found within the impact footprint on Refuge land, and do not move on their own to vegetated areas outside the impact footprint
033_CDFW-3	Burrowing Owl: To address potential impacts to burrowing owl, the draft EIS/EIR states that mitigation measure M-TBR-2d would be implemented. M-TBR-2d refers to survey protocols described in the California Burrowing Owl Consortium's Burrowing Owl Survey and Mitigation Guidelines (1993) and passive relocation. CDFW recommends that effective burrowing owl avoidance, minimization, and mitigation measures consistent with the Santa Clara Valley Habitat Plan/Natural Communities Conservation Plan (Habitat Plan) be included in the EIR/EIS. The EIR/EIS should specify that take of burrowing owl will be avoided, and include appropriate and effective minimization measures based on the best available science that are consistent with Appendix M of the Habitat Plan. Please be advised that CDFW cannot authorize owl relocation, including passive eviction, and that this activity is not permissible under the Burrowing Owl Conservation Strategy (except under a specific exception pertaining to a positive growth trend in the burrowing owl population, as described in Chapter 6 of the Habitat Plan). CDFW recommends that the section in the draft EIS/EIR addressing burrowing owl be revised to be consistent with Appendix M of the Habitat Plan.	The measure has been re-written so that if active burrows are discovered, a buffer will be established around the burrow until the young have fledged. Provisions for relocation and passive eviction have been eliminated. Rodent abatement is envisioned to be limited to the footprint of the levee prism and not exceed significantly (> 35 feet) onto the ecotone. A final decision has not been developed for rodent abatement. The leading strategy discussed has been buried stone (or other obstruction) in the face of the levee slope to prevent substantial burrowing. This type of strategy will be further developed and optimized during the design period. Trap and relocation, as well as, poison bait stations are not considered viable alternatives consistent with the Valley Plan's Burrowing Owl Conservation Strategy.

DAVE CORTESE
PRESIDENT, BOARD OF SUPERVISORS
COUNTY OF SANTA CLARA SUPERVISOR, THIRD DISTRICT
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February 19, 2015

Bill DeJager
San Francisco District
U.S. Army Corps of Engineers
1455 Market Street
San Francisco, CA 94103-1398

Dear Bill,

It has been a great reassurance that the USACE committed to assessing San Francisco Bay's first Shoreline levee in Santa Clara County. A number of our communities and commercial areas near the Bay already suffer repeated, substantial impacts from fluvial flooding and face future flood threat from rising seas.

The County's history of fluvial flooding makes the Draft EIR/EIS document worthy of scrutiny. It seems that the document does not discuss nor include any alternative that considers plans of the City of San Jose for the biosolids ponds/drying beds under its Regional Wastewater Facility Master Plan. One viable option of those plans would improve drainage for the watersheds of both Coyote and Lower Penitencia Creeks by converting the ponds/beds into a floodplain, possibly 1/3 of a mile wide, draining both creeks. That flow would drain to the Bay through Pond A18 which the Draft EIR/EIS proposes for habitat restoration and breaching. 1

It is relevant that the EIR/EIS include discussion of the Regional Wastewater Facility Master Plan and that there be an alternative provided that depicts a levee alignment that would provide the needed floodplain.

The EIR/EIS also proposes a tidal gate on Artesian Slough, which is also the outflow for the wastewater facility at some 100 M gal/day. Please provide more information on how the gate operates and will permit outflow during extreme tide events (and not backup into Alviso) and how it will alter the hydraulic and habitat conditions of the slough which also borders the Don Edwards National Wildlife Refuge. 2

I request that the USACE address the concerns raised here in the EIR/EIS.

Sincerely,

Dave Cortese
President, Board of Supervisors

ID	Issue Text	Response Text
034_Cortese-1	The County's history of fluvial flooding makes the Draft EIR/EIS document worthy of scrutiny. It seems that the document does not discuss nor include any alternative that considers plans of the City of San Jose for the biosolids ponds/drying beds under its Regional Wastewater Facility Master Plan. One viable option of those plans would improve drainage for the watersheds of both Coyote and Lower Penitencia Creeks by converting the ponds/beds into a floodplain, possibly 1/3 of a mile wide, draining both creeks. The flow would drain to the Bay through Pond A18 which the Draft EIR/EIS proposes for habitat restoration and breaching. It is relevant that the EIR/EIS include discussion of the Regional Wastewater Facility Master Plan and that there be an alternative provided that depicts a levee alignment that would provide the needed floodplain.	The Shoreline Study addresses coastal flooding in the Alviso area between Coyote Creek and Guadalupe River/Alviso Slough. Fluvial flooding has already been addressed by the Santa Clara Valley Water District's flood protection projects on Coyote Creek and Guadalupe River and for this reason is not the focus of this study. The Shoreline planning team worked closely with the City of San Jose staff to consider the Regional Wastewater Facility's needs. One levee alignment considered earlier in the planning process cut across the drying beds and would have tied into the existing Coyote Creek flood protection levee further upstream – an alignment similar to one described in the comment. However, as described in the Master Response to the Coyote Creek Levee Alignment, this eastern terminus alignment was not carried forward as a feasible alternative for consideration in the Draft EIS/R because the San Jose-Santa Clara Regional Wastewater Facility (Facility) is still considering whether to retain the existing sludge lagoons for their drying operations. The City of San José adopted the Plant Master Plan (PMP) for the Facility in November 2013. The PMP proposes very conceptual levee alignments and deferred final location to the Shoreline Study process.
034_Cortese-2	The EIR/EIS also proposes a tidal gate on Artesian Slough, which is also the outflow for the wastewater facility at some 100M gal/day. Please provide more information on how the gate operates and will permit outflow during extreme tide events (and not backup into Alviso) and how it will alter the hydraulic and habitat conditions of the slough which also borders the Don Edwards National Wildlife Refuge.	The project team is continuing to analyze the configuration and operations of the proposed closure on Artesian Slough to avoid negatively impacting plant operations. Backwater effects occurring during a higher water event (~ hours) are very unlikely to exhaust the Regional Wastewater Facility's existing storage in the wet weather retention basin (~8MG) and lead to substantial flooding in the project area.

San Francisco Bay Wildlife Society

http://www.sfbws.com/

February 20, 2015

Bill DeJager, USACE,
1455 Market St.,
San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

RE: *South San Francisco Bay Shoreline Study draft feasibility study and environmental impact statement/report*

Dear Mr. DeJager,

The *San Francisco Bay Wildlife Society* (SFBWS) is a long-term Cooperating Association (soon to be a Friends group) in partnership with and support of the San Francisco Bay National Wildlife Refuge Complex. SFBWS is a 501 (c)(3) organization incorporated July 30, 1987, over 25 years ago.

In this letter, the SFBWS wishes to assert its support of the Locally Preferred Plan as stated on page S-50 of the Main Report, as captured below:

> **Locally Preferred Plan (LPP) Details**: The LPP (Figure S-10) differs from the Tentative NED/NER Plan with respect to two features: 1) the levee is higher (15.2 feet for LPP versus the Tentative 13.5 feet for the NED/NER Plan) and 2) the LPP includes an ecotone for Ponds A12/A13 and A18 while the NED/NER Plan includes a bench. Under current policy (pending WRRDA 2014, Section 1025 Implementation Guidance regarding restoration activities on USFWS lands), USACE is limited to implementing restoration within Pond A18 with ecotone adjacent to Pond A18. Ponds A9-15 are recommended for USFWS implementation at this time.

In particular, the ecotone addition for the Ponds A12/13 and A18 would be a boon to wildlife overall and in particular protected species, helping the south bay wetlands move back to where they need to be. As seen in other large flood events throughout the world, this ecotone area can provide additional benefits for Problem 3 (REF: S.8.3 on page S-11): 1

> …Adding this feature beyond the proposed bench in the Tentative NED/NER Plan would benefit the recovery of protected wetland species and help to restore ecological functions. In addition, a large ecotone will buffer maintenance actions that are necessary on the adjacent flood risk management levee. (Main Report, S-51).

Also the ecotone can mitigate Problems 1 and 2 (REF: S.8.1, pages S-8&-9; S.8.2, pages S-10 &-11):

> …Over the short term, the ecotone would dissipate the energy encountered by the proposed levee from large storms by increasing the run-up distance for waves. Native grasses and other non-woody vegetation on the ecotone along the bay side of the levee slopes would add to the wave attenuation effect of the transition zones. (Main Report, S-52).

Thank you for consideration of these comments during the public comment period. Let me know if you have questions.

Respectfully submitted,

(electronic signature on file)

Cecilia (Ceal) D. Craig, PhD
San Francisco Bay Wildlife Society, BOD President
Ceal.Craig@SFBWS.com
(408) 828 2643

cc. City of San Jose: Emy Mendoza
FWS: Anne Morkill, Melisa Amato, Jennifer Heroux
SFBWS BOD

ID	Issue Text	Response Text
035_SFBWS-1	In this letter, the SFBWS wishes to assert its support of the Locally Preferred Plan as stated on page S-50 of the Main Report, as captured below:Locally Preferred Plan (LPP) Details: The LPP (Figure S-10) differs from the Tentative NED/NER Plan with respect to two features: 1) the levee is higher (15.2 feet for LPP versus the Tentative 13.5 feet for the NED/NER Plan) and 2) the LPP includes an ecotone for Ponds A12/A13 and A18 while the NED/NER Plan includes a bench. Under current policy (pending WRRDA 2014, Section 1025 Implementation Guidance regarding restoration activities on USFWS lands), USACE is limited to implementing restoration within Pond A18 with ecotoneadjacent to Pond A18. Ponds A9-15 are recommended for USFWS implementation at this time.In particular, the ecotone addition for the Ponds A12/13 and A18 would be a boon to wildlife overall and in particular protected species, helping the south bay wetlands move back to where they need to be. As seen in other large flood events throughout the world, this ecotone area can provide additional benefits for Problem 3 (REF: S.8.3 on page S-11):…Adding this feature beyond the proposed bench in the Tentative NED/NER Plan would benefit the recovery of protected wetland species and help to restore ecological functions. In addition, a large ecotone will buffer maintenance actions that are necessary on the adjacent flood risk management levee. (Main Report, S-51).Also the ecotone can mitigate Problems 1 and 2 (REF: S.8.1, pages S-8&-9; S.8.2, pages S-10 &-11):…Over the short term, the ecotone would dissipate the energy encountered by the proposed levee from large storms by increasing the run-up distance for waves. Native grasses and other non-woody vegetation on the ecotone along the bay side of the levee slopes would add to the wave attenuation effect of the transition zones. (Main Report, S-52).	Your support of the Locally Preferred Plan (in particular, the ecotone addition) is acknowledged and we thank you for your input.

036_Leddy_2

From: Matt Leddy <mtleddy@sbcglobal.net>
Sent: Friday, February 20, 2015 11:55 AM
To: Shoreline Environment SPN
Cc: Anne Morkill; Brenda.Buxton@scc.ca.gov; MichaelMartin@valleywater.org; Florence LaRiviere
Subject: [EXTERNAL] Comments on Shoreline Phase 1 Project
Attachments: Shoreline Phase 1 draft EIR_EIS comments_M Leddy.docx

Dear Mr. DeJager:

Attached please find comments I am submitting on the Shoreline Phase 1 Project Draft Feasibility Report and Draft EIS/EIR.
A confirmation that my letter has been received would be appreciated.

Thank you,
Matthew Leddy

February 20, 2015

Bill DeJager
USACE
1455 Market Street
San Francisco, CA 94103
ShorelineEnvironment@usace.army.mil

RE: Comments on the San Francisco Bay Shoreline Phase 1 Project Draft Integrated Feasibility Report and Draft Environmental Impact Statement/Environmental Impact Report

Dear Mr. DeJager:

Thank you for the opportunity to provide comments on the Shoreline Phase 1 Project Draft Feasibility Report (FR), and Draft Environmental Impact Statement/Report (EIS/EIR). I appreciate the recent action taken by your agency to extend the period for public review and comment on these important documents.

The South San Francisco Bay Shoreline Phase 1 Project would provide flood protection for Alviso and the San Jose Water Pollution Control Plant, ecosystem restoration on approximately 3,000 acres of former salt ponds and create public trails. My comments will focus on the proposed ecosystem restoration component of the project, and more specifically, on the elements of the FR and EIS/EIR that pertain to provision of high-tide shorebird roosting habitat.

The EIS/EIR findings of the project's potential effects on large and small shorebirds are unclear. On the one hand, the project is not expected to affect large shorebirds (Pg. 4-18) nor limit small shorebird populations (pg. 4-371). On the other hand, the report states that cumulative impacts could affect "some species of shorebirds" as well as pond specialists (pg. 5-12), and that, " …the potential reduction of areas where shorebirds can congregate at high tide could result in increased predation, possibly increased susceptibility to disease, and increased disturbance by predators and humans (and associated increases in energy expenditure)." (pg. 4-371). 1

It seems prudent at this time when salt pond restoration in the South Bay is between project phases (SBSPRP Phase I and Shoreline Phase I) to include additional measures in the Draft EIR/EIS that could minimize the impacts the Shoreline Phase I project may have on shorebird high-tide roosting habitat and population numbers in the South Bay. Evaluation now could "head off undesirable results before they reach the level of significance." (pg. 4-367). This would allow for modification of the restoration plans to mitigate adverse impacts to shorebirds prior to the implementation of the Shoreline Phase I Project. 2

The Shoreline Phase 1 Tentatively Selected Plan calls for the restoration of all eight ponds in the project area (A9-15 and A18) to tidal habitat. Two of these ponds, A9 and A14, are major shorebird roosts (SBSPRP 2007 EIR). Prior to conversion of these managed ponds to tidal habitats, the four issues listed below should be evaluated to ensure the Project will be providing adequate high-quality roosting habitat for the diversity of shorebird species utilizing the extensive mudflats nearby. 3

1)Adequacy of Pond A16 as a shorebird high-tide roost

The Phase I Report (pg. 4-367) states:

> "The SBSPRP reconfigured Pond A16, which is adjacent to the Shoreline Phase I Project, to improve water management, create nesting and roosting islands, and enhance habitat quality for pond specialists. This pond will not be altered by the Shoreline Phase I Project and is anticipated to continue to provide enhanced managed-pond habitat into the future.
>
> In addition, even if all the ponds in the project area are converted to tidal wetlands, pond specialists would have habitat in adjacent areas of the Refuge, such as NCM and Pond A16. When combined with other available habitats, such as mudflats available in the restored ponds and adjacent bay and sloughs at low tide, there still would be extensive habitat available for pond specialists in the project area, even if all the Shoreline Phase I Project ponds are converted to tidal wetlands."

4

"Pond specialists" are defined specifically as the American Avocet, Black-necked Stilt, Wilson's and Red-necked Phalaropes, Greater and Lesser Yellowlegs, and Snowy Plover (Harvey, 2005).

It is unclear if the "roosting islands" will provide critical high-tide roosting sites required by the fourteen other shorebird species found in the project area. This should be clarified in the FR/EIS/EIR. Additionally, if the Shoreline Phase I plan is considering the A16 roosting islands as potential shorebird roosting habitat, then there are two factors that should to be taken into account:

A. Pond A16 is not being reconfigured to specifically provide high-tide roosting habitat for shorebirds. The stated goal is to, "create islands for nesting birds and shallow water habitat for shorebird foraging." (SBSPRP Alternatives Final EIS/EIR, pg. 2-134). Although A16 will have shallow water for foraging which may be used as a roost during high tides, monitoring will only be focusing on foraging shorebirds and not necessarily roosting shorebird diversity and abundance. If the monitoring program is altered to evaluate high-tide roosting shorebird abundance and diversity, it may be determined that this pond would mitigate loss of this habitat in the Shoreline Phase I Project.

5

B. The successful conversion of Pond A16 may result in high-tide roosting habitat, but Pond A16 is still under construction. Implementation of the Shoreline Phase I Project should not precede the demonstrated success of Pond A16 as a high tide shorebird roost for a diversity of shorebird species.

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C. Pond A16 and New Chicago Marsh might not accommodate the approximately 11,000 shorebirds counted in Pond A9 and the approximately 7,600 shorebirds counted in Pond A14 when those ponds are converted to tidal habitats.

7

D. If Pond A16 does not provide adequate space for shorebirds in the South Bay, the next closest designated managed pond in the SBSPRP is Pond A3W (SBSPRP Alternatives Final EIS/EIR

8

pg. 78), which is about 5 kilometers away from A16. This could add substantially to energy expenditure and exposure to predators by shorebirds in their local movement from foraging grounds to roosting areas.

2)Pond levees as shorebird high-tide roosts

Dependence on "pond dikes, islands, and other alternative habitats" for high-tide roosting shorebirds as mitigation for lost managed pond roosting habitat is mentioned and recommended in several places in the Shoreline EIS/EIR report (pgs. 4-18, 4-254 and 4-371), and justification for depending on these alternative roosting habitats is based on a report by Nils Warnock and others (Warnock et al. 2002). Figure 6 in Warnock et al. shows that only about 30% of the roosting shorebirds utilized man-made structures for roosting (dikes, roads, pilings, boardwalks etc.), with the remainder of roosting birds on pond mud (38%), islands (about 18%), and water (about 15%). In addition, only 10% of the shorebirds roosted on levees during high tide in a study conducted by SFBBO (Appendix Q of this EIR/EIS report). Warnock and Takekawa (1995), using radio-marked Western Sandpipers, found the birds on levees when the ponds were flooded, then moving into the ponds when they were drained with water < 5 cm deep. They also found a large proportion of birds in former salt ponds that were filled by rainwater. 9

Based on the information above, it appears that levees are not the preferred roosting habitat for shorebirds at high tide. Conversion of both A9 and A14 managed ponds to tidal habitats would eliminate all but the pond levee structures as roosting habitats for shorebirds. This may result in a significant loss of preferred shorebird roosting habitat. Prior to conversion of managed ponds to tidal habitats, the following should be determined:

A. What is the abundance and species composition of shorebirds currently roosting on levees compared to ponds throughout the year? Which species may be most impacted by converting managed ponds to tidal habitats?

B. Are levees preferred high tide roosting habitat, or are they being used because of a current deficiency in higher quality roosting habitats in the project area? Shorebirds roosting on levees may be more exposed to predators compared to those in ponds. Studies to determine levels of shorebird vigilance in existing pond microhabitats (mud, water, dry, levees, etc.), at high tide could help to determine if levee roosts are the same quality as other roosts within existing managed ponds. Shorebirds roosting on levees may also be subject to more stress during inclement weather compared to those roosting within pond habitats. Both of these factors should be considered prior to conversion of ponds. 10

C. Are birds on the top of the levees, or on the sides along the water's edge? It may not be the levee per se that the birds are using, but rather the shallow water along the levee edge. This could have implications for how ponds are designed for providing roosting habitat.

D. What is the abundance and species composition of shorebirds roosting on levees at night throughout the year?

3)Provisions for high tide nocturnal roosts for shorebirds

The Draft Interim Feasibility Report and Environmental Impact Statement / Report for the Shoreline Phase I Study does not take into account the nocturnal roosting requirements of shorebirds in the South Bay. The potential loss of nocturnal roosting habitat from conversion of these ponds to tidal habitats should be evaluated prior to the start of the Shoreline project.

Technology which allows researchers to track or observe birds at night has allowed biologists to learn that nocturnal roosting habitat requirements can be quite different from those utilized during the day (Conklin et al. 2007, Rogers 2003, Sanders et al. 2013). The following studies demonstrate how nocturnal roosts differ from diurnal, illustrating why the location of current nocturnal roost habitats should be determined and shorebird abundance and species composition in the various ponds be evaluated prior to converting managed ponds to tidal habitats: 11

A. As a consequence of predation pressure, birds may need to fly farther from mudflat foraging areas to nocturnal roosts than they do to daytime roosts. (Conklin et al. 2007, Rogers 2003, Sanders et al. 2013).

B. Conklin et al. (2007) studying Dunlin at Humboldt Bay found that, "At night Dunlin used fewer roosts, were more faithful to primary roosts, and moved shorter distances between successive roosts than during the day." The conversion of managed ponds to tidal habitats in this proposed project will reduce the number of areas where shorebirds can congregate at high tide (pg. 4-18), and a reduction in the number of roost sites could be more critical at night than during the day.

4)Availability of high tide shorebird roosts may limit shorebird population size

The impact of losing high-tide roost habitat on the carrying capacity of South Bay shorebird populations needs to be better understood before the A9 and A14 managed ponds are converted to tidal habitats. Loss of mudflat foraging habitat from sea level change may limit shorebird populations as mentioned in the report (pg. 4-18), but the availability of roosting sites can also limit populations of wintering shorebirds (Dias et al, 2006). Studies that connect foraging shorebirds to their roosting areas should be done prior to converting ponds to tidal habitats. The work on Western Sandpipers done by Sarah Warnock and John Takekawa (1995, 1996) are good examples. 12

In summary, since pond restoration in the Alviso area is currently between two project phases, the SBSPRP Phase I and Shoreline Phase I Project, now is the time to implement adaptive management strategies aimed at gathering new information while SBSPRP Phase 1 is in the actual process of pond restoration and before the Shoreline Phase I Project begins and pond modifications affecting shorebird high-tide roosting habitats is initiated. As stated in the Draft South San Francisco Bay Shoreline Phase I Study: 13

"Adaptive management program of both projects involves monitoring between project phases, which generates information that allows land managers to find ways to change

management measures or adjust implementation designs in order to head off undesirable results before they reach the level of significance." (pg. 4- 367).

Ensuring adequate acres of high tide diurnal and nocturnal roosting sites for the shorebirds that are using mudflats in and adjacent to the project area should be planned for in advance. Optimal roosting sites are closest to foraging mudflats, and therefore a sufficient amount of this habitat is an essential element that should be identified in initial restoration and project plans. The EIR/EIS must identify concrete measures that will be implemented in the Shoreline Phase I Project to mitigate the significant cumulative impacts to the diverse species of shorebirds foraging in the South Bay.

Thank you again for the opportunity to provide comments.

Sincerely,

Matthew Leddy

275 D Street
Redwood City, CA 94063
mtleddy@sbcglobal.net

cc: Anne Morkill, USFWS
Brenda Buxton, California Coastal Conservancy
Michael Martin, SCVWD
Florence LaRiviere, Citizens Committee to Complete the Refuge

Literature Cited:

Conklin, J.R., Mark A. Colwell and D.B. Lank. 2007. Diurnal and Nocturnal Roost Site Fidelity of Dunlin (*Calidris alpine pacifica*) at Humboldt Bay, California. The Auk 124: 677- 689.

Dias, M. P., J. P. Granadeiro, M. Lecoq, C. D. Santos & J. M. Palmeirim, 2006. Distance to high-tide roosts constrains the use of foraging areas by dunlins: implications for the management of estuarine wetlands. Biological Conservation 131: 446–452.

H. T. Harvey & Associates. 2005. Biology and Habitats Existing Conditions Report. Prepared for California State Coastal Conservancy, US Fish and Wildlife Service, California Fish and Wildlife Service.

Rogers, D.I. 2003. High-tide roost choice by coastal waders. Wader Study Group Bull. 100: 73-79.

Sanders, F., Spinks, M. & Magarian, T. 2013. American oystercatcher winter roosting and foraging ecology at Cape Romain, South Carolina. Wader Study Group Bull. 120(2): 128–133.

Warnock, N., G. W. Page, et al. 2002. Management and conservation of San Francisco Bay salt ponds: effects of pond salinity, area, tide, and season on Pacific Flyway waterbirds. Waterbirds 25: 79-92.

Warnock, S. and J.Y. Takekawa. 1995. Habitat preferences of wintering shorebirds in a temporally changing environment: Western Sandpipers in the San Francisco Bay estuary. The Auk 112: 920 – 930.

Warnock, S. and J.Y. Takekawa. 1996. Wintering site fidelity and movement patterns of Western Sandpipers *Calidris mauri* in the San Francisco Bay estuary. Ibis 138: 160 – 167.

ID	Issue Text	Response Text
036_Leddy_2-1	The EIS/EIR findings of the project's potential effects on large and small shorebirds are unclear. On the one hand, the project is not expected to affect large shorebirds (Pg. 4-18) nor limit small shorebird populations (pg. 4-371). On the other hand, the report states that cumulative impacts could affect "some species of shorebirds" as well as pond specialists (pg. 5-12), and that, " …the potential reduction of areas where shorebirds can congregate at high tide could result in increased predation, possibly increased susceptibility to disease, and increased disturbance by predators and humans (and associated increases in energy expenditure)." (pg. 4-371).	The findings in the EIS/EIR are consistent in regard to the potential effects on shorebirds. The discussion on page 4-18 relates to the 'future without project' scenario. Even without the Shoreline project, declines in shorebird numbers are anticipated throughout San Francisco Bay due to changes in the management of ponds (or lack thereof) and mudflat loss resulting from sea level change. The discussion on pages 4-371 and 5-12 both related to the cumulative impacts of the Shoreline project together with other projects, specifically the SBSP Restoration Project and potential climate change. These sections conclude that shorebirds are likely to be able to find alternative roosting habitat with the loss of pond habitat. However the reduction of areas where shorebirds can congregate at high tide could potentially result in increased predation, susceptibility to disease, and disturbance by predators and humans. This impact is considered cumulatively significant. This impact is mitigated by the Adaptive Management Plan for the Shoreline Project and adaptive management that is part of the SBSP Restoration Project. Monitoring data on shorebirds (and other pond species) will directly influence the decisions on whether to proceed with further tidal habitat restoration in the remainder of the A9-15 pond cluster. Only Ponds A12 and A18 will be converted to tidal wetlands in the first phase of the Shoreline Study (when the flood protection levee is completed). Ponds A9 through A11 will be converted approximately five years later, and Ponds A13-15 another five years after that. This will give time to monitoring shorebird populations and their usage of the ponds to determine if there is adequate regional habitat for the later pond conversions to move forward.
036_Leddy_2-2	It seems prudent at this time when salt pond restoration in the South Bay is between project phases (SBSPRP Phase I and Shoreline Phase I) to include additional measures in the Draft EIR/EIS that could minimize the impacts the Shoreline Phase I project may have on shorebird high-tide roosting habitat and population numbers in the South Bay. Evaluation now could "head off undesirable results before they reach the level of significance." (pg. 4-367). This would allow for modification of the restoration plans to mitigate adverse impacts to shorebirds prior to the implementation of the Shoreline Phase I Project.	This is the objective of the Adaptive Management Plan for the Shoreline Project; to monitor changes to shorebird populations (and other species in the south bay) and use that data to inform later phases of restoration. This also ties into the adaptive management plan for the SBSP Restoration Project to track the regional population of species. If monitoring shows "undesirable results" from the conversation of Ponds A12 and A18 to tidal marsh, then that data can be used to alter later pond restoration of Ponds A9 through A11 (scheduled for five years later) and Ponds A13 through A15 (scheduled for ten years later).
036_Leddy_2-3	The Shoreline Phase 1 Tentatively Selected Plan calls for the restoration of all eight ponds in the project area (A9-15 and A18) to tidal habitat. Two of these ponds, A9 and A14, are major shorebird roosts (SBSPRP 2007 EIR). Prior to conversion of these managed ponds to tidalhabitats, the four issues listed below should be evaluated to ensure the Project will be providing adequate high-quality roosting habitat for the diversity of shorebird species utilizing the extensive mudflats nearby.	Only Ponds A12 and A18 will be converted to tidal wetlands in the first phase of the Shoreline Study. The conversion of subsequent ponds will be contingent upon the Shoreline Study Monitoring and Adaptive Management Plan, as well as the SBSP Restoration Project Adaptive Management Plan, to ensure adequate regional habitat for shorebirds exists before proceeding with additional breaching. Pond A9 is scheduled five years after the initial phase, and Pond A14 five years after that. These future actions will be guided by the monitoring data collected to limit adverse impacts to shorebird roosting.
036_Leddy_2-4	1) Adequacy of Pond A16 as a shorebird high-tide roost The Phase I Report (pg. 4-367) states: "The SBSPRP reconfigured Pond A16, which is adjacent to the Shoreline Phase I Project, to improve water management, create nesting and roosting islands, and enhance habitat quality for pond specialists. This pond will not be altered by the Shoreline Phase I Project and is anticipated to continue to provide enhanced managed-pond habitat into the future. In addition, even if all the ponds in the project area are converted to tidal wetlands, pond specialists would have habitat in adjacent areas of the Refuge, such as NCM and Pond A16. When combined with other available habitats, such as mudflats available in the restored ponds and adjacent bay and sloughs at low tide, there still would be extensive habitat available for pond specialists in the project area, even if all the Shoreline Phase I Project ponds are converted to tidal wetlands." "Pond specialists" are defined specifically as the American Avocet, Black-necked Stilt, Wilson's and Red-necked Phalaropes, Greater and Lesser Yellowlegs, and Snowy Plover (Harvey, 2005). It is unclear if the "roosting islands" will provide critical high-tide roosting sites required by the fourteen other shorebird species found in the project area. This should be clarified in the FR/EIS/EIR.	The efficiacy of the exisiting roosting islands are being monitored as part of the SBSP Restoration Project Adaptive Management Program and will also be monitored by the Shoreline Project. Changes to roosting islands could be made in the future, or incorporated into future phases, if monitor indicates that changes are needed.

036_Leddy_2-5	Additionally, if the Shoreline Phase I plan is considering the A16 roosting islands as potential shorebird roosting habitat, then there are two factors that should to be taken into account: A. Pond A16 is not being reconfigured to specifically provide high-tide roosting habitat for shorebirds. The stated goal is to, “create islands for nesting birds and shallow water habitat for shorebird foraging.” (SBSPRP Alternatives Final EIS/EIR, pg. 2-134). Although A16 will have shallow water for foraging which may be used as a roost during high tides, monitoring will only be focusing on foraging shorebirds and not necessarily roosting shorebird diversity and abundance. If the monitoring program is altered to evaluate high-tide roosting shorebird abundance and diversity, it may be determined that this pond would mitigate loss of this habitat in the Shoreline Phase I Project.	The SBSPR project, through USGS and SFBBO monitoring, looks at waterbird behavior, including roosting, in their 250m grid monitoring of the ponds. To date, there is only 1 year of data at Pond A16, but there will be a better handle on bird use at that pond in the coming years. Therefore, these data are already being collected, and it is the intent of the SBSPR Project to continue conducting those studies. This type of data will directly influence the decisions on whether to proceed with further tidal habitat restoration in the remainder of the A9-15 pond cluster, or if specific changes are needed at Pond A16.
036_Leddy_2-6	B. The successful conversion of Pond A16 may result in high-tide roosting habitat, but Pond A16 is still under construction. Implementation of the Shoreline Phase I Project should not precede the demonstrated success of Pond A16 as a high tide shorebird roost for a diversity of shorebird species.	Please see response to comment #5 above.
036_Leddy_2-7	C. Pond A16 and New Chicago Marsh might not accommodate the approximately 11,000 shorebirds counted in Pond A9 and the approximately 7,600 shorebirds counted in Pond A14 when those ponds are converted to tidal habitats.	Please see response to #3 above. The ongoing monitoring includes use of New Chicago Marsh.
036_Leddy_2-8	D. If Pond A16 does not provide adequate space for shorebirds in the South Bay, the next closest designated managed pond in the SBSPRP is Pond A3W (SBSPRP Alternatives Final EIS/EIR pg. 78), which is about 5 kilometers away from A16. This could add substantially to energy expenditure and exposure to predators by shorebirds in their local movement from foraging grounds to roosting areas.	Pond A3W is a very deep pond, and would not be managed for Shorebirds. Shorebirds are also expected to take advantage of other nature habitats in the south bay. Please refer to response #3 above.
036_Leddy_2-9	2) Pond levees as shorebird high-tide roosts Dependence on “pond dikes, islands, and other alternative habitats” for high-tide roosting shorebirds as mitigation for lost managed pond roosting habitat is mentioned and recommended in several places in the Shoreline EIS/EIR report (pgs. 4-18, 4-254 and 4-371), and justification for depending on these alternative roosting habitats is based on a report by Nils Warnock and others (Warnock et al. 2002). Figure 6 in Warnock et al. shows that only about 30% of the roosting shorebirds utilized man-made structures for roosting (dikes, roads, pilings, boardwalks etc.), with the remainder of roosting birds on pond mud (38%), islands (about 18%), and water (about 15%). In addition, only 10% of the shorebirds roosted on levees during high tide in a study conducted by SFBBO (Appendix Q of this EIR/EIS report). Warnock and Takekawa (1995), using radio-marked Western Sandpipers, found the birds on levees when the ponds were flooded, then moving into the ponds when they were drained with water < 5 cm deep. They also found a large proportion of birds in former salt ponds that were filled by rainwater. Based on the information above, it appears that levees are not the preferred roosting habitat for shorebirds at high tide. Conversion of both A9 and A14 managed ponds to tidal habitats would eliminate all but the pond levee structures as roosting habitats for shorebirds. This may result in a significant loss of preferred shorebird roosting habitat.	Levees may not be the preferred habitat for shorebirds, but can still be utilized along with other natural habitats in the south bay. Use of roosting habitat will be monitored as discussed in the response to comment #3 above.
036_Leddy_2-10	Prior to conversion of managed ponds to tidal habitats, the following should be determined: A. What is the abundance and species composition of shorebirds currently roosting on levees compared to ponds throughout the year? Which species may be most impacted by converting managed ponds to tidal habitats? B. Are levees preferred high tide roosting habitat, or are they being used because of a current deficiency in higher quality roosting habitats in the project area? Shorebirds roosting on levees may be more exposed to predators compared to those in ponds. Studies to determine levels of shorebird vigilance in existing pond microhabitats (mud, water, dry, levees, etc.), at high tide could help to determine if levee roosts are the same quality as other roosts within existing managed ponds. Shorebirds roosting on levees may also be subject to more stress during inclement weather compared to those roosting within pond habitats. Both of these factors should be considered prior to conversion of ponds. C. Are birds on the top of the levees, or on the sides along the water’s edge? It may not be the levee per se that the birds are using, but rather the shallow water along the levee edge. This could have implications for how ponds are designed for providing roosting habitat. D. What is the abundance and species composition of shorebirds roosting on levees at night throughout the year?	Please see responses to #3 and #5 above.

036_Leddy_2-11	3) Provisions for high tide nocturnal roosts for shorebirds The Draft Interim Feasibility Report and Environmental Impact Statement / Report for the Shoreline Phase I Study does not take into account the nocturnal roosting requirements of shorebirds in the South Bay. The potential loss of nocturnal roosting habitat from conversion of these ponds to tidal habitats should be evaluated prior to the start of the Shoreline project. Technology which allows researchers to track or observe birds at night has allowed biologists to learn that nocturnal roosting habitat requirements can be quite different from those utilized during the day (Conklin et al. 2007, Rogers 2003, Sanders et al. 2013). The following studies demonstrate how nocturnal roosts differ from diurnal, illustrating why the location of current nocturnal roost habitats should be determined and shorebird abundance and species composition in the various ponds be evaluated prior to converting managed ponds to tidal habitats: A. As a consequence of predation pressure, birds may need to fly farther from mudflat foraging areas to nocturnal roosts than they do to daytime roosts. (Conklin et al. 2007, Rogers 2003, Sanders et al. 2013). B. Conklin et al. (2007) studying Dunlin at Humboldt Bay found that, “At night Dunlin used fewer roosts, were more faithful to primary roosts, and moved shorter distances between successive roosts than during the day.” The conversion of managed ponds to tidal habitats in this proposed project will reduce the number of areas where shorebirds can congregate at high tide (pg. 4-18), and a reduction in the number of roost sites could be more critical at night than during the day.	We agree with the commenter, as little is known about the nocturnal roosting at these sites. In addition, there is also nocturnal foraging depending on the tides. See response to 3 above.
036_Leddy_2-12	4) Availability of high tide shorebird roosts may limit shorebird population size The impact of losing high-tide roost habitat on the carrying capacity of South Bay shorebird populations needs to be better understood before the A9 and A14 managed ponds are converted to tidal habitats. Loss of mudflat foraging habitat from sea level change may limit shorebird populations as mentioned in the report (pg. 4-18), but the availability of roosting sites can also limit populations of wintering shorebirds (Dias et al, 2006). Studies that connect foraging shorebirds to their roosting areas should be done prior to converting ponds to tidal habitats. The work on Western Sandpipers done by Sarah Warnock and John Takekawa (1995, 1996) are good examples.	Agreed. The Adaptive Management Plan is in place to study and address these issues. Please see response to #3 above.
036_Leddy_2-13	In summary, since pond restoration in the Alviso area is currently between two project phases, the SBSPRP Phase I and Shoreline Phase I Project, now is the time to implement adaptive management strategies aimed at gathering new information while SBSPRP Phase 1 is in the actual process of pond restoration and before the Shoreline Phase I Project begins and pond modifications affecting shorebird high-tide roosting habitats is initiated. As stated in the Draft South San Francisco Bay Shoreline Phase I Study: “Adaptive management program of both projects involves monitoring between project phases, which generates information that allows land managers to find ways to change management measures or adjust implementation designs in order to head off undesirable results before they reach the level of significance.” (pg. 4- 367). Ensuring adequate acres of high tide diurnal and nocturnal roosting sites for the shorebirds that are using mudflats in and adjacent to the project area should be planned for in advance. Optimal roosting sites are closest to foraging mudflats, and therefore a sufficient amount of this habitat is an essential element that should be identified in initial restoration and project plans. The EIR/EIS must identify concrete measures that will be implemented in the Shoreline Phase I Project to mitigate the significant cumulative impacts to the diverse species of shorebirds foraging in the South Bay.	The SBSPR Project is experimenting with purposefully designed roosting areas for shorebirds at Ponds E12 and E13 in Eden Landing. These results are aimed to address the same concerns expressed by the commenter and will be part of any decision-making on further breaching and/or managed pond adjustments. The Adaptive Management Plan is the measure the project is implementing to address cumulative impacts to shorebirds in the south bay.

038_Lucas_5

From: JLucas1099@aol.com
Sent: Monday, February 23, 2015 1:06 PM
To: Shoreline Environment SPN
Subject: [EXTERNAL] South San Francisco Bay Shoreline Phase 1 Project - cont. comment (5)

Bill DeJager
US Army Corps of Engineers
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San Francisco, California 94103

February 23, 2015

RE: South San Francisco Bay Shoreline Phase 1 Project Draft Integrated Feasibility Report and Draft Environmental Impact Statement/Environmental Impact Report (continued comment no. 5)

Dear Bill DeJager,

To continue my comment from February 22, in regards your COE South San Francisco Bay Shoreline Phase 1 Project, would wish to question lack of survey data in DEIS/EIR on resident and migratory bird populations.

In January 28, 2015 submittal did include 'historic' 1978 San Jose-Santa Clara Water Treatment Plant EIR Figure 4-8 Endangered Species in the Baylands that mapped extent of California Clapper Rail and Least Tern nesting areas in sloughs and marshes of South Bay.

In addition, the Coyote Creek, Reach 1 A Waterbird Pond Monitoring Program Annual Report of June 1999 Through June 2000, Tables 6 and 7 documented presence of rare, endangered and locally unique birds in project area - California Brown Pelican, California Clapper Rail, Double-crested cormorant, Northern Harrier, Sharp Shinned Hawk, Cooper's Hawk, Black Shouldered Kite, Golden Eagle, Western Bluebird, California Gull, Yellow Warbler, Salt Marsh Yellowthroat; and in project area vicinity, White Pelican, Peregrine Falcon, California Black Rail, Snowy Plover, California Least Tern, Burrowing Owl and Short-eared Owl. 1

Table E 2 of this report noted Species, totals and mean number per survey observed through the July 1999 through June 2000 study period, separated by group: Shorebirds, Gulls, Waterfowl, and Other Waterbirds.

Believe updated monitoring data on species, as observed at Reach 1 A Waterbird Pond, needs to be included in DEIS/EIR for resident and migratory waterfowl using marshes, ponds and sloughs between Coyote Creek and Guadalupe River in shoreline levee project area. Is this DEIS/EIR deficiency or did I just not find data?

An accurate review of elements DEIS/EIR needs to assess re proposed project impacts on migratory and resident shorebird roosting and foraging habitat, particularly in high tide conditions, is detailed and referenced in letter from Matthew Leddy. He is long term observer of South Bay shorebirds and do support his concerns. 2

It seems questionable wisdom that proposed super levee is to obliterate South Bay marsh ecotone interface with uplands refugia and find it hard to understand how such an extent of bay fill in wildlife refuge endangered species habitat can be acceptable to San Francisco Bay Basin Plan criteria. Please substantiate regulatory rationale. 3

Do not believe that overriding public health and safety considerations can be determined to take precedence over CEQA and NEPA environmental law and guidelines in that levee design puts Alviso in greater jeopardy from depth and frequency from flood inundation than it is in at present. After 1984's (?) Coyote Creek flood it was mandated that a ring levee be constructed around Alviso but this was never successfully completed. 4

One rather critical natural constraint of shoreline levee alignment as proposed in DEIS/EIR is its siting on top of marshland that has exceptionally high artesian action. As super levee construction places extensive tons of fill on porous wetlands it is bound to cause upwelling of groundwater into Alviso homes and businesses. The extent of this super levee's impact on groundwater pressure needs hydraulic assessment in DEIS/EIR. How much further inland will Artesian Slough be artesian? Can intrusion affect Coyote Creek levee integrity? 5

Bay level rise and a doubling of water runoff in valley due to imported supplies has already affected evolution of marsh vegetation in project area. Seasonal wetlands are now permanent wetlands. Burrowing owls retreat to levees and higher ground. The Coyote Creek/Guadalupe River delta no longer absorbs sheet flow runoff as groundwater levels run high. Conditions are no longer favorable for riding out intense storms attendant to global warming. **6**

Understand that there is growing concern over outflow from San Jose Water Treatment Plant in times of flood when perhaps three days volume of treated water should be stored until South Bay tide levels recede. My math is no longer able to compute acreage of storage that is needed for three to four days of plant output but can appreciate that an isolated facility is preferable. Had always thought Pond 18 had been bought by City of San Jose for this purpose and so suggest that it be managed as a freshwater/recycled water marsh.
Coastal Conservancy designed Emily Renzel Marsh in Palo Alto to handle limited treatment plant outflows. Can similar technology be implemented in Pond 18?

Such use of Pond 18 with adequate levee protection would coordinate with my earlier suggestion of mosaic of managed marsh plain and floodplain, inboard of railroad line levee, in mode of Napa River flood retention. Ponds 16 and 17 could be managed like Island Ponds to attract different species of migratory and resident shorebirds with certain levels of salinity and depths of foraging tidal wetlands to suit their particular needs. **7**

The marsh plain floodplain, inboard of the railroad line levee, that I propose might have requisite capacity for two to three days fluvial stormflow, sufficient to mute reflux and overbanking between #237 and #101. It would be configured in horseshoe around Pond 18, extending from tide gates on Guadalupe River at Alviso around to tide gates on Coyote Creek main channel and overflow channel, to Coyote Creek mitigation SMHM marsh.

Island Ponds would be inboard of tide gates and subject to same tidal action as at present as would rest of Wildlife Refuge Ponds 16 and 17 and managed wetlands in marsh flood plain. Would envision tide gates only needed to be implemented in extreme storm event when king tides would inhibit fluvial outflow to South Bay. (In 1990's SCVWD placed metal dams on Coyote Creek (Standish Dam) and Guadalupe River at #237 so the technology, if not hardware, should be readily available). **8**

Think this must cover all points of concern on proposed super levee of your COE South San Francisco Bay Shoreline Phase 1 Project. Only might reiterate that railroad line levee alignment would offer protection to City of Milpitas and possibly better buffer for Highway #880 and #237 infrastructure. **9**

Thank you for continued consideration of these protracted comment letters.

Libby Lucas
174 Yerba Santa Ave.,
Los Altos, CA 94022

ID	Issue Text	Response Text
038_Lucas_5-1	To continue my comment from February 22, in regards your COE South San Francisco Bay Shoreline Phase 1 Project, would wish to question lack of survey data in DEIS/EIR on resident and migratory bird populations. In January 28, 2015 submittal did include 'historic' 1978 San Jose-Santa Clara Water Treatment Plant EIR Figure 4-8 Endangered Species in the Baylands that mapped extent of California Clapper Rail and Least Tern nesting areas in sloughs and marshes of South Bay. In addition, the Coyote Creek, Reach 1 A Waterbird Pond Monitoring Program Annual Report of June 1999 Through June 2000, Tables 6 and 7 documented presence of rare, endangered and locally unique birds in project area - California Brown Pelican, California Clapper Rail, Double-crested cormorant, Northern Harrier, Sharp Shinned Hawk, Cooper's Hawk, Black Shouldered Kite, Golden Eagle, Western Bluebird, California Gull, Yellow Warbler, Salt Marsh Yellowthroat; and in project area vicinity, White Pelican, Peregrine Falcon, California Black Rail, Snowy Plover, California Least Tern, Burrowing Owl and Short-eared Owl. Table E 2 of this report noted Species, totals and mean number per survey observed through the July 1999 through June 2000 study period, separated by group: Shorebirds, Gulls, Waterfowl, and Other Waterbirds. Believe updated monitoring data on species, as observed at Reach 1 A Waterbird Pond, needs to be included in DEIS/EIR for resident and migratory waterfowl using marshes, ponds and sloughs between Coyote Creek and Guadalupe River in shoreline levee project area. Is this DEIS/EIR deficiency or did I just not find data?	Regional monitoring of this type is being included by reference only, as projects such as the South Bay Salt Pond Restoration project are already taking a broader look at waterbird use in the region in response to these large scale ecosystem restoration efforts.
038_Lucas_5-2	An accurate review of elements DEIS/EIR needs to assess re proposed project impacts on migratory and resident shorebird roosting and foraging habitat, particularly in high tide conditions, is detailed and referenced in letter from Matthew Leddy. He is long term observer of South Bay shorebirds and do support his concerns.	Your support of Matthew Leddy's concerns is noted and responses to his comments can be found in responses "036_Leddy-1" through " 036_Leddy-13".
038_Lucas_5-3	It seems questionable wisdom that proposed super levee is to obliterate South Bay marsh ecotone interface with uplands refugia and find it hard to understand how such an extent of bay fill in wildlife refuge endangered species habitat can be acceptable to San Francisco Bay Basin Plan criteria. Please substantiate regulatory rationale.	The Shoreline project shares the commenter's concern over impacts to the SMHM. One of the key species to benefit from the construction of ecotone (the project includes broad upland transition zones adjacent to the engineered levee) is the SMHM. The ecotone will provide sufficient cover and habitat to protect the SMHM during high tides and storms and allow for migration along the shoreline. When completed, the Shoreline project will create nearly 3,000 acres of SMHM habitat and when combined with the already-restored Pond A17, the south bay will have a continuous band of salt marsh habitat from Alviso Slough Ponds A9-15 through A17 to Coyote Creek's fringing marshes and Pond A18. The only disruption would be the existing Union Pacific Railroad line. This ultimate vision will provide much greater habitat connectivity, and the construction of the ecotone and the phased approach to restoration will help to minimize the direct effects of the initial restoration actions. In addition, all large-scale restoration projects around the Bay (e.g., Sonoma Baylands, Napa Salt Marsh, Hamilton, Island Ponds, A6, A17, Eden Landing, etc.) have had to excavate 'starter channels' through the existing fringing marshes in order for the larger habitat targets, which include the recovery of the SMHM, to be realized. These are standard restoration practices to expedite habitat development, and are routinely accepted by the environmental community and regulatory agencies. In terms of specific connections between the New Chicago Marsh and Coyote Creek mitigation area (Reach 1A) populations, the Preferred Alternative should improve SMHM migration opportunities over existing conditions by restoring large tracts of salt marsh habitat, lowering levees, and creating ecotone (transition zones).
038_Lucas_5-4	Do not believe that overriding public health and safety considerations can be determined to take precedence over CEQA and NEPA environmental law and guidelines in that levee design puts Alviso in greater jeopardy from depth and frequency from flood inundation than it is in at present. After 1984's (?) Coyote Creek flood it was mandated that a ring levee be constructed around Alviso but this was never successfully completed.	We concur that under current law, public health and safety considerations do not override NEPA or CEQA. The project sponsors have no authority to override laws. The project would connect with two existing river flood protection projects, the Guadalupe River and the Coyote Creek projects. In doing so, it would complete the fluvial and coastal protection for the community of Alviso, making past proposals for a ring levee obsolete.
038_Lucas_5-5	One rather critical natural constraint of shoreline levee alignment as proposed in DEIS/EIR is its siting on top of marshland that has exceptionally high artesian action. As super levee construction places extensive tons of fill on porous wetlands it is bound to cause upwelling of groundwater into Alviso homes and businesses. The extent of this super levee's impact on groundwater pressure needs hydraulic assessment in DEIS/EIR. How much further inland will Artesian Slough be artesian? Can intrusion affect Coyote Creek levee integrity?	The proposed project will not induce increases in the water table surface, or induce piezometric head (i.e. Artesian pressures), beyond the immediate footprint of construction. Fill areas to construct project levees and habitat fills will induce localized piezometric heads that will dissipate with time. Dissipation time will vary from very short (~weeks to months) in areas of thin fills or where wick drains are implemented to long (years) in areas of thick (>10 ft) habitat fills. Regardless, these localized piezometric changes will not induce measureable variations in the water table/pressure beyond the footprint of new fills.
038_Lucas_5-6	Bay level rise and a doubling of water runoff in valley due to imported supplies has already affected evolution of marsh vegetation in project area. Seasonal wetlands are now permanent wetlands. Burrowing owls retreat to levees and higher ground. The Coyote Creek/Guadalupe River delta no longer absorbs sheet flow runoff as groundwater levels run high. Conditions are no longer favorable for riding out intense storms attendant to global warming.	Thank you for your comment. The Recommended Plan is expected to be more resilient in the face of sea level change.

038_Lucas_5-7	Understand that there is growing concern over outflow from San Jose Water Treatment Plant in times of flood when perhaps three days volume of treated water should be stored until South Bay tide levels recede. My math is no longer able to compute acreage of storage that is needed for three to four days of plant output but can appreciate that an isolated facility is preferable. Had always thought Pond 18 had been bought by City of San Jose for this purpose and so suggest that it be managed as a freshwater/recycled water marsh. Coastal Conservancy designed Emily Renzel Marsh in Palo Alto to handle limited treatment plant outflows. Can similar technology be implemented in Pond 18? Such use of Pond 18 with adequate levee protection would coordinate with my earlier suggestion of mosaic of managed marsh plain and floodplain, inboard of railroad line levee, in mode of Napa River flood retention. Ponds 16 and 17 could be managed like Island Ponds to attract different species of migratory and resident shorebirds with certain levels of salinity and depths of foraging tidal wetlands to suit their particular needs. The marsh plain floodplain, inboard of the railroad line levee, that I propose might have requisite capacity for two to three days fluvial stormflow, sufficient to mute reflux and overbanking between #237 and #101. It would be configured in horseshoe around Pond 18, extending from tide gates on Guadalupe River at Alviso around to tide gates on Coyote Creek main channel and overflow channel, to Coyote Creek mitigation SMHM marsh.	The City of San Jose's Plant Master Plan calls for Pond A18 to be restored to tidal wetlands and is not proposing that the pond be used for effluent storage. The Master Plan also proposes that some of the current biosolid lagoons be converted to freshwater treatment wetlands in the future (p. 51). Once Pond A18 is breached and reconnected to Bay waters, it will receive some flows from the WPCP's outfall in Artesian Slough and parts of the pond will likely evolve into brackish marsh due to these freshwater inputs, creating some of the mosaic the commenter describes. Through the SBSP Restoration Project, Pond A16 was recently converted to a managed pond for shorebirds and other pond specialist species and Pond A17 has been breached and is evolving into a tidal wetland. The U.S. Fish and Wildlife Service currently has no plans to change the existing management of Ponds A16 and A17.
038_Lucas_5-8	Island Ponds would be inboard of tide gates and subject to same tidal action as at present as would rest of Wildlife Refuge Ponds 16 and 17 and managed wetlands in marsh flood plain. Would envision tide gates only needed to be implemented in extreme storm event when king tides would inhibit fluvial outflow to South Bay. (In 1990's SCVWD placed metal dams on Coyote Creek (Standish Dam) and Guadalupe River at #237 so the technology, if not hardware, should be readily available).	As described in the response to the Railroad Levee Alignment, the Shoreline Study tried to avoid constraining tidal flows and creating managed wetland systems. There is a tidal gate proposed for Artesian Slough for reasons unique to that setting (see Master Response to Artesian Slough levee alignment). Although technology may exist to manage flows, the cost of creating and managing this technology and the impact to the environment must be weighed against its advantages. For this reason, the Shoreline Study tried to avoid engineered solutions as much as possible when able to restore less-intensively managed systems that have natural flood protection features.
038_Lucas_5-9	Think this must cover all points of concern on proposed super levee of your COE South San Francisco Bay Shoreline Phase 1 Project. Only might reiterate that railroad line levee alignment would offer protection to City of Milpitas and possibly better buffer for Highway #880 and #237 infrastructure.	Early in the Shoreline Study planning process, options similar to the commenter's suggestion were considered such as hardening outboard levees and installing tide gates strategic locations to hold back tidal flooding. This would convert the former south bay salt ponds to essentially flood detention basins. Such basins can successfully be managed as either tidal and/or riparian flood flows (depending on how they are designed) and create habitat, but they result in highly-altered environments with the need for intensive, long-term management. Consistent with the vision created by the South Bay Salt Pond Restoration Project and consistent with Corps of Engineers ecosystem restoration policy, the Shoreline Study has tried to incorporate more natural, less managed solutions into the project, as much as possible, in order to reduce environmental impacts, costs, and long-term complications from highly-managed systems. Using the railroad line to create tidal basins would also conflict with the Shoreline Study's identified habitat goals of tidal restoration through an adaptive management process. Tidal basins and tide gates usually preclude full tidal restoration. While these muted tidal systems can provide valuable habitat, they do not have all of the geomorphic and ecological functions that existed historically when the South Bay was dominated by unconstrained tidal marshes. Furthermore, the creation of tidal detention basins would conflict with the habitat goals of the South Bay Salt Pond Restoration Project and other regional plans, such as the Baylands Ecosystem Habitat Goals and the USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California. A central goal of these plans is to create largely unbroken swaths of salt marsh habitat in the far South Bay and reconnect isolated wildlife populations. For these reasons, these types of flood protection solutions were not carried forward for further analysis.

From: Ruacho, Mariela <mariela_ruacho@ios.doi.gov>
Sent: Monday, February 02, 2015 8:47 AM
To: Shoreline Environment SPN
Cc: Loretta Sutton; Patricia Port
Subject: [EXTERNAL] Review of the DEIS for South San Francisco Bay Shoreline Phase I, CA
Attachments: ER_14_0797_No Comment Letter.docx

Hello,

Please see the attached No Comment Letter for the *(DEIS)* for South San Francisco Bay Shoreline Phase I, CA Project (ER 14/0797).

Thank you,
--
Mariela Ruacho
Regional Environmental Intern
Office of Environmental Policy and Compliance
US Department of the Interior
333 Bush St., Suite 515
San Francisco, CA 94104
ph: (415) 296-3356
mariela_ruacho@ios.doi.gov

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Pacific Southwest Region
333 Bush Street, Suite 515
San Francisco, CA 94104

IN REPLY REFER TO:
(ER 14/0797)

Filed Electronically

2 February 2015

Thomas R. Kendall Chief
Planning Branch Engineering and Technical Services Division
U.S. Army Corps of Engineers
San Francisco District 1455 Market St.
San Francisco, CA 94103
ATTN: William DeJager
Environmental Section A

Subject: Review of the Draft Environmental Impact Statement (DEIS) for South San Francisco Bay Shoreline Phase I, CA

Dear Chief Kendall:

The Department of the Interior has received and reviewed the subject document and has no comments to offer. 1

Thank you for the opportunity to review this project.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

cc:
OEPC Staff Contact: Loretta B. Sutton, (202) 208-7565; Loretta_Sutton@ios.doi.gov

ID	Issue Text	Response Text
039_DOI-1	The Department of the Interior has received and reviewed the subject document and has no comments to offer.	Thank you for your review of the DEIS; it is noted that you have no comments to offer at this time.

040_CG

Cargill

February 19, 2015

Mr. Bill DeJager
U.S. Army Corps of Engineers
1455 Market Street
San Francisco, CA 94103

Subject: South San Francisco Bay Shoreline Study DIFR/DEIS/DEIR
Cargill file: 2000.005:8

Dear Mr. DeJager:

Thank you for providing the public the opportunity to comment on this very extensive, detailed report that will ultimately provide much needed flood protection in this region of the South San Francisco Bay Area. As the former land owner in this area, I am very familiar with the property and the surrounding uses. I find that it is important to know your neighbors when conducting a study of this magnitude that ultimately may have positive and/or negative impacts to their property or uses.

My comments are relatively few consider the size of this document, but it is important that they are corrected for the record.

1. **Figure S-1. South San Francisco Bay Shoreline Interim Feasibility Study Areas**
   This figure needs both a change in nomenclature as well as a line/shading adjustment. The border around the property labeled "Alameda County Cargill Ponds" is inaccurate. It fails to include our operating salt ponds 4 & 5, which are currently shaded blue and shown as a part of the "Alviso Pond Complex and Santa Clara County". The orange shaded area also includes EBRPD's Coyote Hills – this needs to be removed from the map. Lastly, Cargill's Redwood City Plant Site needs to be distinguished from the "Ravenswood Ponds and San Mateo County". All of Cargill's property should be labeled "Cargill Salt Operating System". I have attached an edited map as Exhibit 1 for your reference.

1

7220 Central Avenue
Newark, CA 94560-4205

Tel (510) 790-8610
Fax (510) 790-8180

2. **Chapter 1, page 1-6, 2nd paragraph**
In the middle of this paragraph, the sentence reads, "However, in 2003, the Federal and State governments acquired 15,100 acres of inactive (former) salt ponds in the South Bay from Cargill Salt…" Please note that in 2003, these salt ponds were in fact "active". Please correct the sentence to read, "However, in 2003, the Federal and State governments acquired 15,100 acres of active salt ponds…" I have attached an edited copy of that page as Exhibit 2 for your reference. 2

3. **Figure 1.4-1. South San Francisco Bay Shoreline Interim Feasibility Study Areas**
This is the same figure as Figure S-1. Please see comment #1 for details. I have attached an edited copy of this page as Exhibit 3 for your reference. 3

4. **Figure 4.4-2 Estimated Bathymetry at Year 50 (2067) Based on the Modeling and Analysis by Brown (2010)**
This figure shows an estimated bathymetry at year 50 in Cargill's operating ponds 1, 2, 3, 4, 5 & 6. Since this is outside the study area and within Cargill's continue operating ponds, please remove this from the map. It erroneously shows a bathymetric change in Cargill's operating ponds as if they were being subject to tidal action – which they are not, nor are they planned to be. Please see the attached edited page as Exhibit 4 for your reference. 4

I would again like to thank you for the opportunity to comment on this extensive document and I trust that you will make the appropriate changes in order to properly reflect both the history of the property as well as the current uses by Cargill as a neighbor to this project. Should you have any questions, please feel free to contact me at (510) 790-8610 or alternatively you can email me at pat_mapelli@cargill.com.

Sincerely,

Pat Mapelli
Manager, Real Property

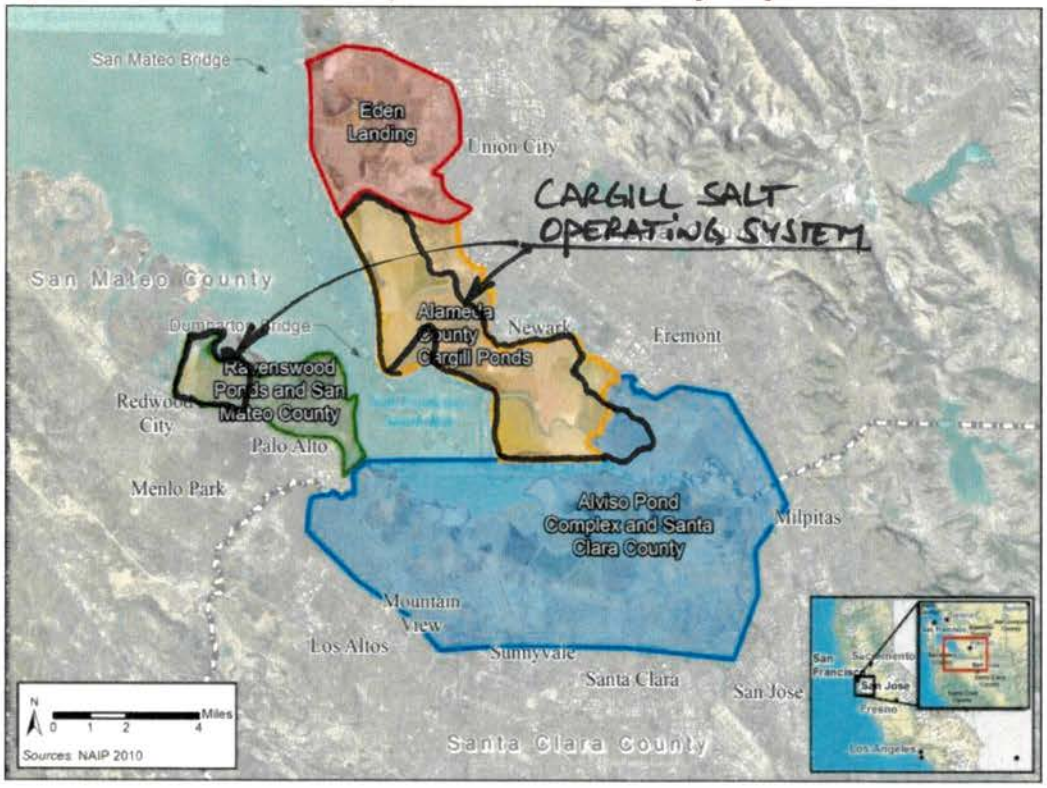
EXHIBIT 1

S.0 Executive Summary

S.1 Stage of Planning Process

The South San Francisco Bay Shoreline Study is an Interim Feasibility study that represents flood risk management and ecosystem restoration in the Alviso Salt Ponds complex and adjacent community of Alviso, Santa Clara County, California (Figure S-1). The reconnaissance phase of the study, which was completed in September 2004, resulted in the finding that there was Federal interest in continuing the study into the feasibility phase.

Figure S-1. South San Francisco Bay Shoreline Interim Feasibility Study Areas



The locally preferred plan (LPP) recommended for implementation and identified as the tentatively selected plan (TSP) would provide a higher level of flood risk resiliency over the Tentative National Economic Development/National Ecosystem Restoration (NED/NER) and would allow for continued Federal Emergency Management Agency (FEMA) accreditation at the end of the study's period of analysis (2017-2067). It would also provide a broad transition zone between upland and tidal marsh areas with the addition of an ecotone adjacent to the Flood Risk Management (FRM) levees. This ecotone would benefit the efficacy of the levee structure as well as provide significantly more acreage for marshes to retreat inland in the face of sea level change. A request for an exception to recommending the NED and NER Plan needs to be approved by the Assistant Secretary of the Army (ASA)'s office at Headquarters United

EXHIBIT 2

In August 1969, the McAteer-Petris Act was amended to make the BCDC a permanent agency and to incorporate the policies of the Bay Plan into State law. The BCDC is the federally designated State coastal management agency for the San Francisco Bay segment of the California coastal zone. This designation empowers the BCDC to use the authority of the Federal Coastal Zone Management Act (CZMA) to ensure that Federal projects and activities are consistent with the policies of the Bay Plan and State law. Among other things, the BCDC is currently responsible for developing rules and regulations prohibiting big bay-fill projects and for permitting any proposed projects that can affect the bay.

Soon after, in 1972, the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) was established on roughly 20,000 acres of active (currently used in solar salt production) and former (inactive; no longer used for salt production) salt ponds. The Refuge, which includes most of the former salt ponds in the Alviso complex, was established ". . . for the preservation and enhancement of highly significant habitat . . . for the protection of migratory waterfowl and other wildlife, including species known to be threatened with extinction, and to provide opportunity for wildlife-oriented recreation and nature study . . ." (86 Statute [Stat] 399, dated June 30, 1972).

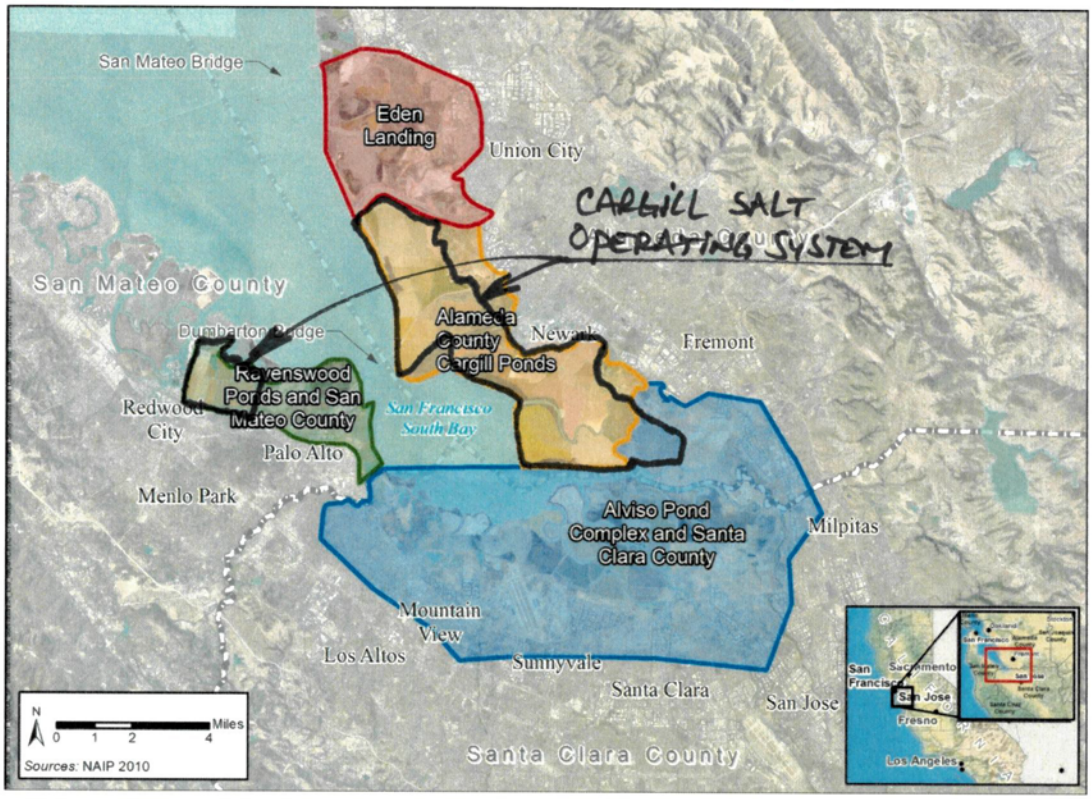
The Shoreline Study was originally authorized by Congress in 1976 to assess the need for flood risk management in the South Bay. In 1992, the USACE found that it could not, within its policy guidelines, economically justify developing a Federal flood risk management project along the South San Francisco Bay shoreline, mainly because it determined that Cargill (previously Leslie) Salt would continue to maintain its existing (and non engineered) salt pond dikes due to economic interests. Although these salt pond dikes were not engineered or built for the purpose of flood risk management, they provided incidental flood risk management for the neighboring communities. However, in 2003, the Federal and State governments acquired 15,100 acres of inactive (former) salt ponds in the South Bay from Cargill Salt (which had purchased the land from Leslie Salt) and began planning a restoration project that would ultimately affect the utility of those former salt pond dikes as flood risk management structures. As a result, the U.S. House of Representatives requested that the USACE review its previous study on flood risk management in San Francisco Bay and expand the study's scope to include environmental restoration and protection as well as tidal and fluvial flood risk management.

IN 2003, THESE SALT PONDS WERE IN FACT "ACTIVE"

The USACE completed an initial reconnaissance analysis in September 2004, which determined that, due to the current and future anticipated conditions in the South Bay, it was likely that a Federal flood risk management and ecosystem restoration project would be justified. The decision was made to phase the planning effort because of the large geographic extent of the South San Francisco Bay area; the complexity of the hydrology, hydraulics, and combined flood risk management and ecosystem restoration components; and in anticipation of Federal and non-Federal funding availability. The geographic area was generally split into four primary study areas: Ravenswood Ponds and San Mateo County, Alviso Ponds and Santa Clara County, Cargill Ponds and Alameda County, and Eden Landing (also Alameda County; Figure 1.4-1). Each of the Interim Feasibility Studies, independent in utility and not reliant on other study areas' proposed actions, would address flood risk management, ecosystem restoration, recreation, and other project purposes specific to each area.

EXHIBIT 3

Figure 1.4-1. South San Francisco Bay Shoreline Interim Feasibility Study Areas



On October 24, 2005, the USACE, the USFWS, the SCVWD, and the CSCC initiated the South San Francisco Bay Shoreline Interim Feasibility Study (2005 Shoreline Study).

At this planning stage, the study area covered the southern portion of the South Bay, including the entire Alviso pond complex and other lands and waters stretching from southwest Fremont to Palo Alto (Figure 1.4-2). A subset of this larger area, the Alviso pond complex, includes approximately 9,000 acres of former salt production ponds and 15 miles of shoreline between Palo Alto and southwest Fremont. It consists of 25 ponds (many of which are owned by the USFWS as part of the Refuge) and resides at the bay's southern extremity in Santa Clara and Alameda Counties. To the south and east, this 2005 Shoreline Study study area extended beyond the former salt ponds to include all lands subject to inundation from a 0.2-percent annual chance of exceedance (ACE) tidal flooding event (also known as the 500-year flood) under predicted future conditions with sea level change.

EXHIBIT 4

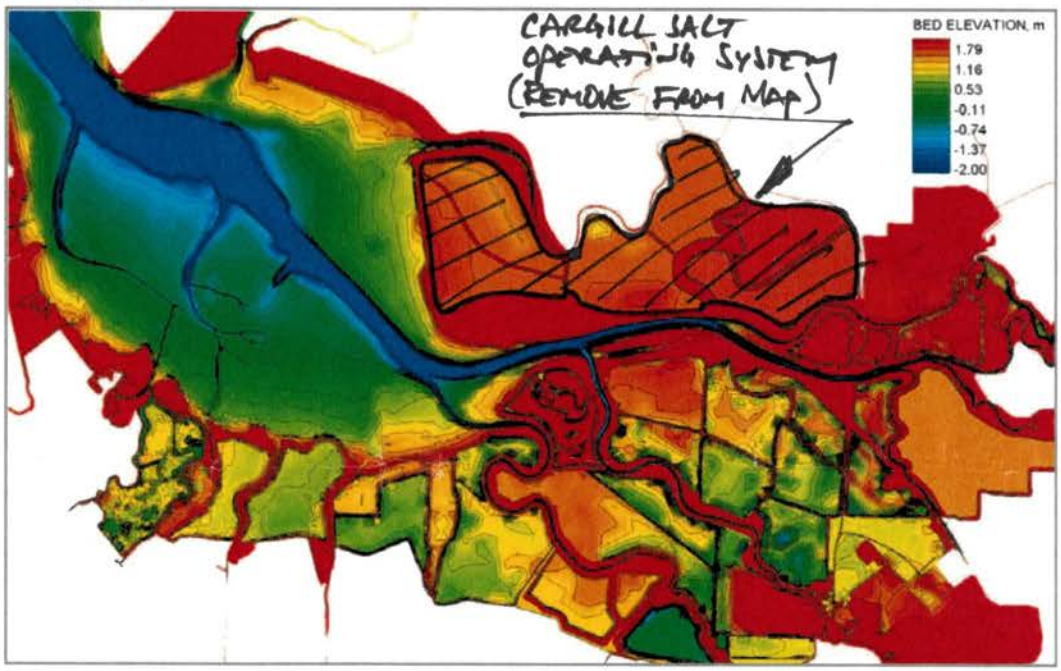
To evaluate the effects of uncertainty in the future rate of sea level change, the following rates of sea level change are being considered for the Shoreline Phase I Study:

- USACE Low SLC scenario (total change of +0.51 foot from Year 0 [2017] to Year 50 [2067])
- USACE Intermediate SLC scenario (total change of +0.1.02 feet from Year 0 [2017] to Year 50 [2067])
- USACE High SLC scenario (total change of +2.59 feet from Year 0 [2017] to Year 50 [2067])

These three rates of sea level change were used to estimate the sensitivity of flooding at Year 50 (2067) to the uncertainty about the sea level at the Shoreline Phase I Study Area boundary.

Figure 4.4-2 is the resulting color contour plot of the expected Year 50 bathymetry (Brown 2010). The overall planform elevation has increased by 0.65 meter over the Year 0 planform elevation, to account for the total sea level change over the project life. Pond A6 is filled completely, and Pond A8 is partially filled.

Figure 4.4-2. Estimated Bathymetry at Year 50 (2067) Based on the Modeling and Analysis by Brown (2010)



ID	Issue Text	Response Text
040_CG-1	Figure S-1. South San Francisco Bay Shoreline Interim Feasibility Study Areas. This figure needs both a change in nomenclature as well as a line-shading adjustment. The border around the property labeled "Alameda County Cargill Ponds" is inaccurate. It fails to include our operating salt ponds 4 & 5, which are currently shaded blue and shown as part of the "Alviso Pond Complex and Santa Clara County". The orange shaded area also includes EBRPD's Coyote Hills - this needs to be removed from the map. Lastly, Cargill's Redwood City Plant Site needs to be distinguished from the "Ravenswood Ponds and San Mateo County". All of Cargill's property should be labeled "Cargil Salt Operating System". I have attached an edited map as Exhibit 1 for your reference.	Thank you for clarifying the boundaries of the individual feasibility study areas and the Cargill Salt operating system ponds. The suggested revisions to the Figure (now Figure1.5.1) has been made per the edited map provided as an attachment to your letter. The Executive Summary was shortened and the Figure no longer appears there.
040_CG-2	Chapter 1, page 1-6, 2nd paragraph - In the middle of this paragraph, the sentence reads, "However, in 2003, the Federal and State governments acquired 15,100 acres of inactive (former) salt ponds in the South Bay from Cargill Salt..." Please note that in 2003, these salt ponds were in fact "active". Please correct the sentence to read, "However, in 2003, the Federal and State governments acquired 15,100 acres of active salt ponds..." I have attached an edited copy of that page as Exhibit 2 for your reference.	The suggested revision to Chapter 1 has been made. The sentence has been revised as requested. Additionally, further in the same sentence, the term "former" was removed in reference to the salt pond dikes themselves.
040_CG-3	Figure 1.4-1. South San Francisco Bay Shoreline Interim Feasibility Study Areas. This is the same figure as Figure S-1. Please see comment #1 for details. I have attached an edited copy of this page as Exhibit 3 for your reference.	Thank you for clarifying the boundaries of the individual feasibility study areas and the Cargill Salt operating system ponds. The suggested revision to Figure 1.4-1 (now Figure 1.5-1) has been made per the edited map provided as an attachment to your letter. The Executive Summary was shortened and the Figure no longer appears there.
040_CG-4	Figure 4.4-2 Estimated Bathymetry at Year 50 (2067) Based on the Modeling and Analysis by Brown (2010)This figure shows an estimated bathymetry at year 50 in Cargill's operating ponds 1,2,3,4,5 & 6. Since this is outside the study area and within Cargill's continue operating ponds, please remove this from the map. It erroneously shows a bathymetric change in Cargill's operating ponds as if they were being subject to tidal action - which they are not, nor are they planned to be. Please see the attached edited page as Exhibit 4 for your reference.	Thank you for clarifying the boundaries for the estimated bathymetry at year 50 (Figure 4.4-2). The referenced ponds have been removed from the figure and the bathymetric change has been limited to those areas in the study area that will be subject to tidal action.

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Sam T. Liccardo
MAYOR

March 19, 2015

Bill DeJager
San Francisco District
U.S. Army Corps of Engineers
1455 Market Street
San Francisco, CA 94103-1398
Via Email to: ShorelineEnvironment@usace.army.mil

Dear Bill,

We would like to request our initial letter dated February 16, 2015, be retracted and no longer be considered as our public comment letter on the Shoreline Study Draft EIS/EIR. We would like to submit this letter dated March 19, 2015 in lieu of the February 16, 2015 letter.

We appreciate the valuable work that the Army Corps of Engineers and non-federal sponsors, the Santa Clara Valley Water District and State Coastal Conservancy, have undertaken to conduct and complete the Shoreline Study Draft EIS/EIR in relation to the San Jose Bay Shoreline. We support the Shoreline Study effort, because protecting our low-lying communities by preparing for the likelihood of sea-level rise and increased threats of extreme storms is important to the City, our residents, the ecosystem, and the economy.

San José's Regional Wastewater Facility's Master Plan adopted by the City Council in November 2013 identified a tentative levee alignment that corresponds to the proposed Shoreline Study levee alignments. Regional Wastewater staff, including our City staff, have been working with the Shoreline Study partners in the development of the Shoreline levee alignment that will allow for the vision of flood protection and restoration to be implemented.

It's the City's intent to continue to work with the Shoreline Study partners to ensure the best levee alignment is realized, a design where restoration may one day connect Bay marshes through a recreated floodplain of Coyote Creek, enriching wetland and riparian habitats all along that reach. It is a vision of an extraordinary opportunity for San José.

200 E. Santa Clara St., San Jose, CA 95113 *tel* (408) 535-4800 *fax* (408) 292-6422 www.sjmayor.org

We look forward to working with the Shoreline partners on an appropriate levee alignment that reflects this vision.

Sincerely,

Sam T. Liccardo
Mayor, City of San José
District 4

Margie Matthews
Councilmember, City of San José

Cc: Project Manager, Major Adam Czekanski, United States Army Corps of Engineers

ID	Issue Text	Response Text
041_Liccardo Matthews-1	We would like to request our initial letter dated February 16,2015, be retracted and no longer be considered as our public comment letter on the Shoreline Study Draft EIS/EIR. We would like to submit this letter dated March 19, 2015 in lieu of the February 16, 2015 letter.	Your comment is acknowledged and our files have been updated. Your letter dated February 16, 2015 has been removed from the draft Integrated Document review records and replaced with this letter dated March 19, 2015. Therefore, no response to the February 16 letter will be included in the public response to comments.
041_Liccardo Matthews-2	We appreciate the valuable work that the Army Corps of Engineers and non-federal sponsors, the Santa Clara Valley Water District and State Coastal Conservancy, have undertaken to conduct and complete the Shoreline Study Draft EIS/EIR in relation to the San Jose Bay Shoreline. We support the Shoreline Study effort, because protecting our low-lying communities by preparing for the likelihood of sea-level rise and increased threats of extreme storms is important to the City, our residents, the ecosystem, and the economy. San Jose's Regional Wastewater Facility's Master Plan adopted by the City Council in November 2013 identified a tentative levee alignment that corresponds to the proposed Shoreline Study levee alignments. Regional Wastewater staff, including our City staff, have been working with the Shoreline Study partners in the development of the Shoreline levee alignment that will allow for the vision of flood protection and restoration to be implemented. It's the City's intent to continue to work with the Shoreline Study partners to ensure the best levee alignment is realized, a design where restoration may one day connect Bay marshes through a recreated floodplain of Coyote Creek, enriching wetland and riparian habitats all along that reach. It is a vision of an extraordinary opportunity for San Jose.	Thank you for your review of the Shoreline Phase I Project and acknowledgment of our common goals. No revision to the text is required.