



South Bay Salt Pond Restoration Project

Restoring the Wild Heart of the South Bay

To: South Bay Salt Pond Restoration Project Team

From: Center for Collaborative Policy

Re: Outcomes from the August 4, 2015 Stakeholder Forum &
Working Groups Meeting

Background: The Stakeholder Forum (Forum) and its three geographic working groups met on Tuesday, August 4, 2015 from 3:00 to 5:00 p.m. at the Mountain View Community Center. The Forum is convened to provide ongoing input to the South Bay Salt Pond Restoration Project's Project Management Team and its technical consultants on development and implementation of the South Bay Salt Pond Restoration Project plan for restoration, flood management, and public access.

Meeting Attendance: Attachment 1 lists meeting participants.

Meeting Materials: In advance of the meeting, Forum members were provided a meeting agenda and proposed Forum Charter update. At the meeting, Forum members received handouts including the 2013 Stakeholder Forum meeting summary and information on the Phase 2 Alviso and Ravenswood Draft Environmental Impact Statement/Report. The PowerPoint presentation slides, which give more details on presentations, are available on the Restoration Project website at www.southbayrestoration.org.

Substantive Meeting Outcomes:

1. Welcome, Introductions and Agenda Review

John Bourgeois, Executive Project Manager, and Pat Showalter, City of Mountain View Vice Mayor and member of the Restoration Project Management Team representing the Santa Clara Valley Water District, welcomed Forum members, Working Group members and the public. John Bourgeois led introductions and referred to the agenda, which included:

- Stakeholder Forum Charter Update
- Phase 1 Progress
- Phase 2 Planning
- South Bay Shoreline Study
- Science Program Update
- Looking Ahead to 2016

2. Stakeholder Forum Charter Update

Facilitator Ariel Ambruster of the Center for Collaborative Policy referred Forum members to the proposed Forum Charter update. The changes reflect Forum members' current roles and responsibilities. In its early years, the Forum met intensively to reach consensus recommendations on the Project plan. In recent years, it meets periodically and focuses on plan implementation. The updated Charter reflects this activity and allows the option for consensus-seeking, but does not state that it will occur regularly. John Bourgeois encouraged Forum members to review the proposed update and contact Project managers if they have any questions or concerns.

Questions/Comments:

Q: Are the three geographic working groups still meeting?

A: The working groups have not met separately from the Forum for a number of years. The groups convene when there is a specific project design to review and provide input on.

Q: Can you send Forum members a red-line version so we can track the text changes?

A: Yes.

3. Tracking our Progress: Highlights of 2014 & 2015

John Bourgeois summarized Project activities to date. The Project is taking action within a context of several scientific uncertainties, including the ecological trade-offs between tidal marsh and salt pond species, and is using adaptive management to guide actions.

Phase 1 implementation is complete for Alviso and Ravenswood ponds at the Don Edwards San Francisco Bay National Wildlife Refuge, and Eden Landing Phase I is scheduled for completion by the end of 2015. Approximately 3,700 of 15,000 acres of Project land have been enhanced or restored; 11% of the 15,000 acres are now becoming tidal marsh, and 15% are enhanced managed ponds. The Project's restoration efforts have garnered national media attention from PBS NewsHour and, upcoming, National Geographic magazine. One unexpected success is that the restored marsh is already attracting and supporting endangered species: surveys in July found endangered salt marsh harvest mice and a Ridgway's rail breeding pair at the Island Ponds, restored in 2006.

John Krause of the California Department of Fish and Wildlife said major Phase 1 construction in Eden Landing has been completed. At Ponds E12 and E13 this work includes trails, a kayak launch and a pond experiment, where cells were constructed with different salinity gradients to test which salt levels different bird species prefer.

Question/Comments:

Q: Does the Eden Landing public access include being designated a part of the San Francisco Bay Water Trail?

A: Not at this point, but that is a future consideration.

Q: Will managers provide habitat for relocated snowy plovers to mitigate lost nesting habitat at Eden Landing?

A: We enhanced the pond bottom at Pond E14 with oyster shells and are conducting experiments with oyster shell-enhanced habitat to test methods that may improve nest success.

Q: Do plovers prefer oyster shells as nesting habitat?

A: We found high plover concentrations nesting in oyster-dense plots. However, predation continues to adversely affect nesting success.

Q: Does predation differ at the oyster shell sites?

A: Western snowy plover nest predation is a general challenge across its range.

Q: Is the experimental design at the Ravenswood ponds similar to Eden Landing experiments?

A: Eden Landing utilized lessons learned for island design and topping in the Phase 1 Ravenswood project at Pond SF2. However, the Ravenswood ponds focus on bird nesting success at designated islands, while Eden Landing has the reconfigured pond experiment which explores the relationship between salinity and shorebirds and their prey abundances.

Q: Do the Eden Landing salinity gradient ponds differ in depth?

A: Not on average, because we want to identify the effects of salinity independent of depth. However, the pond areas in the salinity experiment have berms such that we can examine depth effects.

4. Phase 2 Overview

John Bourgeois said managers' goal in Phase 2 is to focus on tidal restoration that can be done without increasing flood risk to help develop more salt marsh prior to sea level rise impacts. Managers would like to achieve close to 50% of the Project's acreage in tidal marsh to progress toward the vision set out in the Restoration Plan of 50% tidal marsh and 50% managed ponds. The input managers have received from stakeholders and the public at previous Forum meetings has helped them develop evaluation criteria for Phase 2 efforts. Major funding sources for Phase 2 include the 2014 voter-approved Proposition 1 and the potential 2016 San Francisco Bay Restoration Authority revenue ballot measure.

5. Phase 2 in Eden Landing

John Krause of the California Department of Fish & Wildlife discussed Phase 2 options for Eden Landing. More than 2,000 acres would be restored to tidal marsh.

Managers will continue their reconfigured ponds experiment at E12/E13, and several ponds will remain as managed ponds for a couple of decades before managers reevaluate whether to convert any to tidal marshlands.

Phase 2 tidal restoration will primarily focus on the southern region of Eden Landing between the Alameda Creek Flood Control Channel and Old Alameda Creek. Managers are reviewing various opportunities for public access, breaches, levees, upland transition

habitat from salt marsh and the like. The goal is to provide primary flood protection as the ponds ultimately become tidal marsh. Phase 2 will likely include upland transition habitat around the bayside and landward edges of the area. The Eden Landing Phase 2 draft environmental analysis is currently under development and managers hope to have a permitted project in place by 2017 or 2018. The Project managers would like to coordinate with Redwood City's harbor dredging project to reuse dredged sediments to fill ponds for tidal habitat conversion.

Questions/Comments:

Q: Will you connect the Bay Trail segment there to the regional Bay Trail spine?

A: The goal is to connect the two, but the exact location for the trail depends on which property owners are involved, as there is a patchwork of property ownership in this area, including Alameda County and Cargill.

Q: Will the Eden Landing Phase 2 environmental analysis be ready when Redwood City wants to implement its harbor dredging project? Redwood City wants to complete construction on this project by 2018.

A: The goal is to coordinate efforts with Redwood City and reuse that dredge material; however, Department of Fish and Wildlife and Alameda County interests need to be aligned. The consulting team is working with Alameda County to conduct a few model runs to see that the transition zone design addresses the County's flood concerns.

Comment: I encourage interested parties to attend the August 10 Redwood City public hearing that will discuss the harbor dredging project.

Q: How do the Alameda County flood control operations relate to the Eden Landing restoration efforts?

A: Alameda County owns several inland properties, which it uses for floodwater storage. The County's concern is that if we build large levees, it will have to pump water over those levees.

Q: Does Redwood City have a similar flood control concern?

A: Redwood City does not have the same floodwater storage space as Alameda County. We want to coordinate with Redwood City to help the City address its flood concerns, possibly using the R5 and S5 ponds at Ravenswood as storage for stormwater from the City.

6. Phase 2 in Alviso and Ravenswood

Anne Morkill of the US Fish and Wildlife Service gave an overview of Phase 2 planning options for four areas at the Don Edwards San Francisco Bay National Wildlife Refuge: the Ravenswood ponds, the Island Ponds in Alviso, the Alviso Pond A8 complex, and the Mountain View area ponds at Alviso.

Proposed activities include:

- For the Ravenswood complex (R3, R4, R5 and S5 ponds), all options would enhance the All American Canal to offset the flood protection that Pond R4 currently provides. Alternatives under consideration include retaining a snowy

plover nesting area, developing an upland transition habitat with a tidal marsh or managed ponds, and public access. Managers are also working with Redwood City to analyze whether ponds R5 and S5 could help with Redwood City's stormwater drainage issues.

- The Alviso Island Ponds (A19, A20, and A21) were breached to the Bay in 2006. However, the inland pond, A19, may require levee breaches or lowered levees to increase sedimentation rates to speed the transition to salt marsh.
- For the Alviso Pond A8 complex (A8 and A8S), Phase 2 would add an upland transition zone (ecotone) along part of the border of Pond A8S near San Tomas Aquino Creek and Baylands Community Park. The Project will also study legacy mercury in this area.
- In the Alviso Mountain View ponds (A1/A2W), managers are considering several alternatives including using dredge material for a transition habitat zone or breaching along the sloughs to create tidal marsh habitat. They are also considering doing restoration in conjunction with the City of Mountain View's adjacent Charleston Slough salt marsh restoration project.

Questions/Comments:

Q: Do the Ravenswood Phase 2 plans connect with Palo Alto's Safer Bay initiative [a regional effort to protect shorelines from extreme tides and sea level rise]?

A: Yes, the plans will need to be aligned with the Safer Bay plans. Our efforts are slightly ahead of the Safer Bay timeline.

Q: Will there be public access at the Ravenswood ponds?

A: Yes, one option would be to connect to the Bay Trail.

Q: With a 30-to-1 slope for the transition zone in ponds A1 and A2W, how much actually becomes intertidal marsh habitat and how much is above mean high tide?

A: Most of the transition zone in the Mountain View ponds will be intertidal marsh habitat.

Q: What was your approach to determine whether 30-to-1 would provide sufficient upland refugia?

A: The ratio is partly based on regulatory requirements. Ecologists recommend as much upland refuge habitat as possible, but limitations include meeting diverse stakeholder interests, regulatory requirements, and resource constraints. However, we often purposely place transition zones near covered landfill areas, which provide additional upland habitat.

Q: Do you include the covered landfill areas to calculate the area of upland habitat refugia?

A: We can if that area provides that refuge function; however, we cannot alter that area.

Comment: I encourage managers to consider public access, especially for the Charleston Slough plans. If public access to Charleston Slough decreases, we may lose public interest and support for future restoration efforts.

Response: We agree public access is very important to help people treasure the Bay and want to protect it. All the proposed alternatives incorporate public access opportunities.

For Charleston Slough specifically, Mountain View's permits require them to convert a portion of the Slough into tidal marsh. We believe a better use of resources would be to incorporate Mountain View's restoration requirements with the Project rather than have two separate restoration efforts with a levee in between. One alternative for Ravenswood includes creating an accessible mudflat habitat to mimic the Charleston Slough experience.

Comment: It would be nice to have more accessible mudflat habitat replicated all around the Bay.

Q: Have you considered using cattle guards or some other obstruction at pond entrances to keep out predators such as dogs and foxes?

A: That is certainly an option worth future consideration.

John Bourgeois encouraged those attendees interested to come to the Alviso and Ravenswood Phase 2 Draft EIR/S public meeting later that evening or to go to the Project website at www.southbayrestoration.org to review the report and submit written comments.

7. Fill for Transition Habitat

John Bourgeois said Project consultants have developed a beneficial reuse feasibility study report (available on the Project website at <http://www.southbayrestoration.org/planning/phase2/>) to inform how to utilize outside sources of dirt and mud to build upland transition habitat zones (or ecotones). Consultants identified several opportunities, including current and future building construction projects in the local area. Managers acknowledge the regulatory, logistic, and cost challenges to build transition zones, but the habitat resiliency they create would provide long-term benefits to wildlife.

Questions/Comments:

Comment: Studies emphasize the benefits of transition zones. I am glad the Project will incorporate transition zones, as they will be important for tidal marsh restoration success.

Q: Are you working with the San Francisco Bay Conservation and Development Commission (BCDC) to develop your dredge material reuse plan?

A: Yes. BCDC formed a subcommittee to analyze holistic issues related to sea level rise and how BCDC policy affects bay fill.

Q: Can you build more islands in the ponds as transition zones rather than solely along pond borders?

A: Ideally we would construct more islands; however, the mud substrate and heavily subsided ponds pose significant challenges to building islands. It can take years to build up an island because of the mud. As a more cost-efficient option, we want to lower parts of existing levees to imitate that island topography.

8. Update on the Shoreline Study

Brenda Buxton, State Coastal Conservancy Project Manager, provided an update on Shoreline Study plans for flood management, restoration and trails in the Alviso area. The Shoreline Study is a collaborative effort among the Santa Clara Valley Water District, the Conservancy and the U.S. Army Corps of Engineers to address sea level rise with a more extensive flood protection solution and to restore significant portions of habitat.

A draft Feasibility Study and environmental document were released in winter 2014-15. Since then, a preferred alternative plan has been chosen, with the same planned levee locations, protective features and public access. Once this is built and is tied into the riparian flood protection projects along the Guadalupe River and Coyote Creek, the agencies would be able to restore all 3,000 acres of ponds to salt marsh in a phased manner under an adaptive management program just like the Restoration Project. The agencies will continue to refine the design specifics as the Shoreline Study moves forward.

Questions/Comments:

Q: Is there a final Shoreline Study EIR/S?

A: The Shoreline partners responded to public comments received on the draft EIR/S, and the draft final EIR/S is currently under Army Corps internal review. Once the Army Corps' Civic Works Review Board and Chief of Engineers approve the document, the report will go before Congress to consider authorizing the new construction.

Q: Does the study focus only on Alviso?

A: The Congressionally authorized area includes all of the Santa Clara County shoreline, but the Shoreline partners focused first on Alviso as the highest priority area due to flood risks. The Water District has begun to look at other shoreline areas in the County and will produce plans for these areas in the coming years.

Pat Showalter of the Santa Clara Valley Water District said the Water District hosted a meeting for cities in the Shoreline Study's next planning area to discuss preferred levee alignments and how to conduct flood protection modeling. She offered to share information from that meeting with interested Forum members.

Q: How is funding support allocated among the Shoreline partners?

A: The Army Corps will provide approximately 65% of the implementation funds. However, the Water District will pay for constructing upland transition habitat, so federal and local funding for the whole project will ultimately be about 50/50.

Q: Do you need additional political support (e.g., writing letters to elected officials)?

A: Additional political support is always welcome.

9. Science Update

Laura Valoppi, Project Lead Scientist, shared highlights from recent science studies.

Mercury

Ponds near the Guadalupe River have been managed with extreme caution due to high mercury concentrations from historical mercury mines. Researchers have been studying the effects on local birds and fish of opening the A8 and other nearby ponds to sloughs and the Bay, looking at the potential for remobilized mercury.

Mercury concentrations in 2013 and 2014 decreased in both Forster's tern and American avocet eggs compared to 2010-2011 levels. Mercury concentrations in pond fish decreased in 2014 compared to 2011. Slough fish also experienced a similar mercury concentration decrease in 2014 compared to earlier years. One anomaly is that mercury concentrations in slough fish increased for unknown reasons before managers opened the pond, but this increase is unrelated to management actions.

Researchers found very little erosion near the Pond A8 opening, so the opened A8 gates may not contribute as much remobilized mercury as previously hypothesized.

The National Marine Fisheries Service required studies to determine whether steelhead smolts swim into and become trapped in Pond A8. In 2014, researchers did not detect any trapped smolt in the pond. Due to the steelhead and bird egg research results, managers opened the A8 gates earlier in 2014 and kept the gates open through the winter months, expecting that this will likely stabilize water levels and help avoid mercury methylation.

Bird Social Attraction

The Army Corps funded a three-year project for Caspian terns, Forster's terns, and western snowy plovers. The Refuge has deploying bird decoys and sound systems that broadcasted bird calls on nesting islands at two ponds to see if the techniques would attract birds. Researchers are still collecting data, but so far no Foster's terns or snowy plovers have nested at these islands. Conversely, Caspian terns have been attracted and have been very productive, with 140 chicks so far emerged from nests.

Upcoming Science Symposium - October 22

The Restoration Project's biennial Science Symposium is an opportunity for the public to learn about and understand Phase 1 science and how it informs Phase 2 research needs. Registration information will be sent out shortly.

Questions/Comments:

Q: Have you considered whether the Caspian tern fledgling success may negatively impact salmonids?

A: Cheryl Strong, Refuge biologist, said preliminary studies indicate not many salmonids occur in this region, and the terns are not eating them.

Q: Have you examined the interaction between Caspian terns and other nesting birds?

A: Yes, we considered appropriate nest island placements to deter interspecies interactions.

10. Looking to 2016

John Bourgeois said the new year will see the completion of Phase 1 at Eden Landing, the final environmental documents for Phase 2 at Alviso and Ravenswood, the Eden Landing Phase 2 draft Environmental Impact Report, continued monitoring and adaptive management, and possibly the San Francisco Bay Restoration Authority revenue measure.

Meeting participants are invited to contact him with questions and concerns at John.Bourgeois@scc.ca.gov. Lead Scientist Laura Valoppi is available at laura_valoppi@usgs.gov; Anne Morkill, Manager of the US Fish and Wildlife Service San Francisco Bay National Wildlife Refuge Complex, is available at anne_morkill@fws.gov; and John Krause, Eden Landing Ecological Reserve Manager, is available at John.Krause@wildlife.ca.gov.

Attachment 1: August 4, 2015 Meeting Attendance*Sign-in is optional*

Full Name	Organization
Laura Adleman	AECOM
Ariel Ambruster	SBSPR Facilitation Team
Lisa Au	City of Mountain View
Donna Ball	Save The Bay
Michele Barlow	PG & E
Chris Barr	USFWS
Bob Batha	BCDC
John Bourgeois	SBSPR Executive Project Manager
Brenda Buxton	State Coastal Conservancy
Justin Capone	high school student
Erika Castillo	ACMAD
Lynn Chiapella	CCCR
Laura Cholodenko	State Coastal Conservancy
Deanna Chow	City of Menlo Park
Ryan Clausnitzer	ACMAD
Terry Cooke	AECOM
J.P De la Montaigne	City of Mountain View
Francesca Demgen	AECOM
Mary Deschene	SF Bay Wildlife Society
Gita Dev	Sierra Club
Ron Duke	H.T. Harvey & Associates
Stephanie Ellis	San Francisco Bay Bird Observatory
David Fee	AECOM
Jim Foran	Bay Trail Project
Jose Garcia	USFWS
Brenda Goeden	BCDC
Dave Halsing	AECOM
Ahmad Haya	Redwood City
Carin High	CCCR
Hugo Hoffman	NASA Ames
Virginia Holtz	Open Space Authority
Stephanie Horii	SBSPR Facilitation Team
Bruce Hurlburt	City of Mountain View
Beth Huning	SF Bay Joint Venture
Amy Hutzal	State Coastal Conservancy
Ellen Johnck	Port of Redwood City

Ralph Johnson	Alameda County Flood Control District
Charlie Knox	Placeworks
John Krause	CDFW
Marilyn Latta	State Coastal Conservancy
Jane Lavelle	SFPUC
Matt Leddy	CCCR
Kirk Lenington	Midpeninsula Regional Open Space District
Pat Mapelli	Cargill Salt
Eileen McLaughlin	Wildlife Stewards
Azalea Mitch	City of Menlo Park
Anne Morkill	USFWS
Jane Moss	Don Edwards NWR
Hilary Papendick	County of San Mateo
Craig Parada	SBYC/ANG
Chindi Peavey	San Mateo County Mosquito and Vector Control
James Podolske	NASA Ames
Gail Raabe	CCCR
Richard Santos	Santa Clara Valley Water District
Brian Schmidt	Independent
Howard Shellhammer	San Jose State University, Dept. of Biological Sciences
Pat Showalter	City of Mountain View/Santa Clara Valley Water District
Lenny Siegel	Mountain View City Council
Jacqueline Solomon	City of Mountain View
Renee Spenst	Ducks Unlimited
Kirsten Strive	City of Palo Alto
Charles Taylor	Alviso
Rachel Tertes	USFWS
Laura Thompson	Bay Trail Project
Karine Tokatlian	San Francisco Bay Bird Observatory
Melody Tovar	City of Sunnyvale
Luisa Valiela	US EPA, Region 9
Raymond Wong	City of Mountain View