



# 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 September 24, 2013 Stakeholder Forum & Working Groups Meeting

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**Background:** The Stakeholder Forum (Forum) and its three geographic working groups met on Tuesday, September 24, 2013 from 1 to 3:45 p.m. at the Water Pollution Control Plant in San Jose. The Forum is convened to provide ongoing input to the South Bay Salt Pond Restoration Project Management Team (PM Team) and its technical consultants on development and implementation of the South Bay Salt Pond restoration, flood management, and public access plan.

**Meeting Attendance:** Attachment 1 lists meeting participants.

**Meeting Materials:** In advance of the meeting, Forum members were provided a meeting agenda. At the meeting, Forum members received handouts including the 2012 Stakeholder Forum meeting summary. The PowerPoint presentation slides, which give more details on presentations, are available on the SBSP Project website ([www.southbayrestoration.org](http://www.southbayrestoration.org)).

**Substantive Meeting Outcomes:**

***1. Welcome, Introductions and Agenda Review***

John Bourgeois, Executive Project Manager, welcomed Forum members, Working Group members and the public and led introductions. He then reviewed the agenda, which included:

- Tracking our Progress: Highlights of 2013
- Phase 2 Overview
- Phase 2 in Alviso and Ravenswood
- Phase 2 in Eden Landing
- Fill for Transition Habitat
- Science Update
- Update on the Shoreline Study
- Funding Climate for Restoration
- Looking Ahead to 2014

## **2. *Tracking our Progress: Highlights of 2013***

John Bourgeois provided a PowerPoint presentation summarizing the status report on South Bay Salt Ponds Phase 1 actions 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. Adaptive management, through scientific studies and monitoring of Phase 1 actions, will inform future phases and decisions on how much of Project acreage, in a range between 50% to 90%, becomes restored tidal marsh.

Phase 1 is complete for Alviso and Ravenswood and Eden Landing Phase 1 construction is scheduled to be complete by the end of 2014. Tidal restoration work and bird nesting islands have been completed at ponds A16 and A17, site of the morning tour. Construction is underway at Eden Landing ponds E12 and E13 to create a series of ponds with variable salinity, to study how valuable high saline ponds are for bird species and their prey. After trails are constructed, bird use will be studied for one year before those trails are opened to the public.

Approximately 25% (3,700 of 15,000 acres) of the Project's land has been converted into managed ponds (75% of 3,700 acres), reconfigured ponds (5%), restored tidal marsh (11%) or muted tidal marsh (10%). However, managed ponds construction consumed 69% of construction costs. For Phase 2, Project managers will not focus on reconfiguring ponds until they know how effective Phase 1 work was.

## **3. *Phase 2: Overview***

John Bourgeois said managers' goal in Phase 2 is to achieve close to 50% of acreage in tidal marsh, to progress toward the vision of 50% tidal marsh and 50% managed ponds. Stakeholder input from last year helped managers develop preliminary evaluation criteria for Phase 2.

## **4. *Phase 2 in Alviso & Ravenswood***

Anne Morkill of U.S. Fish & Wildlife Service (USFWS) gave an overview of Phase 2 planning options for 3 locations – the Island Ponds, ponds A1/A2W, and Ravenswood ponds R5/S5. These proposed activities included:

- The Island Ponds, restored in 2006, may require some enhancements to increase sedimentation rates.
- At Alviso ponds A1/A2W in Mountain View, managers are considering various components such as using dredge material for marsh accretion, ecotones, and public access. They are also working with the City of Mountain View for joint restoration construction with the city's Charleston Slough.
- For Ravenswood ponds R5/S5, options include retaining acreage for snow plover nesting, developing an ecotone and a tidal marsh or managed ponds, and adding public access. Managers are working with Redwood City to analyze whether R5/S5 could help with city storm water drainage issues.

## **Questions/Comments:**

Q: Is it possible to show where the Bay Trail will be going on the maps?

A: The presentation shows possibilities, not finalized plans, and we will elaborate on those in greater detail at the scoping meeting. We are going to evaluate a range of options and alternatives for public access. These options are the same as what we have been planning, we're just further along the process now.

Q: Will you be covering issues around types of suitable fill material for Ravenswood?

A: Yes, we have a whole section on fill material.

Q: With the trail going along the Facebook campus, is the idea that if we put managed ponds there, that will keep the cats from migrating over?

A: The original reason to have those as managed ponds now (and the reason why they might stay as managed ponds) is that it is good snowy plover habitat. We did take adjacent uses into account. Since then, Facebook has gotten rid of cat feeding stations, so it is now a much better situation. This is an urban refuge, so all of our sites will have issues with urban animals.

Q: Then are we basically forced to ignore the issue of how to protect the Refuge from all of us?

A: We take it into account when designing each individual element. We spent 5 years planning for all three complexes considering the individual value of the ponds, how the habitat fits into the landscape, adjacent uses, the infrastructure needed to protect it, etc. When we build trails and habitat, we take into account the adjacent habitats and how those need to interact.

Q: Has there been any education with Facebook employees about predators and their impacts?

A: We have been meeting with Facebook on a few occasions as well as through our regulatory side of USFWS. Facebook is required to provide funds for predator control management, and they have been a responsible and involved partner. They even asked how to handle their resident fox.

Comment: There are many of us in the room who have paid for predator control management in the South Bay. A huge part of it is the education process.

Response: I would also advise stakeholders to explore working with their adjacent communities. It would be extremely helpful if the local community took into account the fact they are next to an endangered species habitat when passing ordinances that relate to free roaming/feral animals and feeding wildlife.

Q: What kinds of ordinances?

Comment: Palo Alto is looking into an ordinance to stop feeding wildlife and feral cats, including the Baylands. Cat groups want an EIR. The City of Palo Alto is willing to do that, and we are working with them. Mountain View is working on its animal ordinance now. We are asking them to include no feeding of cats north of Highway 101, which is also controversial. Both efforts are moving forward with the help of the Sierra Club, the Audubon Society, and others.

Comment: It could be helpful if you engage whatever governing body or control district in that county that can utilize public education. You can have collaboration among San Mateo and Santa Clara counties. They have a common interest.

Q: Will you be describing how the areas were selected in Phase 2 planning documents?

A: Yes, we can do that.

Comment: The ecotone is in the middle at Ravenswood, which seems like an odd place with sea level rise. Maybe the westward pond becomes your tidal marsh transition site, then you would need a barrier. Maybe you're planning to have your barrier as a sea wall, I don't know.

Response: We did think about it, but we do not know the fate of Pond R3. It may stay as a managed pond in perpetuity since it is good snowy plover habitat. When we're prioritizing areas for tidal marsh restoration sites, we look for areas that can be restored sooner rather than later to get ahead of sea level rise. We can't restore ponds R1 and R2 until we have more flood protection for Highway 84 and the PG&E substation. So we went with the area near R3 even though we know it may potentially have to be pushed back further at some point. However, according to old maps and the way salt ponds were originally created, they utilized a natural drainage divide between the two sub-basins. They had put the levee at the highest ground at the drainage divide, so we could borrow that fill material down the road and move it, or breach Pond R4 and leave some fill at higher ground as refugia in the middle of the marsh. I acknowledge that it could be a little odd, but I don't think it would be a negative. It gets the marsh going possibly a decade sooner than it would have otherwise.

Q: If the ecotone is built in the middle, and animals such as the endangered salt marsh harvest mouse moved there, then the sea level rose, would you have "take" issues [under the Endangered Species Act] for moving the ecotone?

A: I don't disagree that it could be an issue, but we were trying to get ahead of rising sea level curves.

Q: Is the ecotone a slope?

A: Yes. The ecotone would be raised to the elevation of the improved levee between ponds R4 and R3, then we would create a 30-to-1 slope on the marsh-side of that.

Q: Then is it good that the marsh is far away from the houses? The harvest mouse would be far from the cats?

A: It is more likely that we would leave the ecotone as an island. We would breach it on the ends, and then there would be high ground in the middle of the marsh.

Comment: From a mosquito standpoint, the managed ponds have been doing very well. The Alameda County Mosquito Abatement District had been concerned about emergent vegetation on the sides of the ponds.

Response: That is good to hear.

Q: How does this tie into the Bay Institute's horizontal levee project? Are they similar to ecotones around the Bay?

A: They are the very same concept. We have been working with the Bay Institute. You will hear more about it when we talk about the Shoreline Study later today. For these areas where we're putting large ecotones, there is definitely flood protection and control benefits, such as decreased rain run-off and decreased maintenance on the levee face.

Q: What is the timeline for environmental review?

A: Here are approximate dates:

- Completion of the administrative draft, end of December 2013
- Public draft release and public commentary period, possibly starting February-March 2014
- Final EIS/R could be available late summer 2014.

### ***5. Phase 2 in Eden Landing***

John Krause of California Department of Fish & Wildlife (CDFW) discussed Phase 2 options for Eden Landing. More than 2000 acres could be restored to tidal marsh at Eden Landing in Phase 2, but Phase 1 has not progressed as quickly as Alviso or Ravenswood due to several different planning bodies and simultaneous projects.

Most of the managed ponds next to Highway 92 will remain as managed ponds in the long term. Other managed ponds (E14, E8, E6B, and E6A) might be restored to tidal marsh 10 to 15 years from now, and there may be specific enhancements at Pond E14 in the near future.

The next phase of tidal restoration will be primarily in southern Eden Landing. Managers are reviewing various opportunities for public access, breaches, levees, transition zones, and other items. The largest proposed change would be building a temporary berm/dike/levee between E5 and E7 to maintain tidal marsh.

Additionally, the Project has been collaborating with the Alameda County Flood Control District to model whether a constructed "landmass" on the bayfront side of ponds E1 and E2 could provide more resilient flood control and retain the function of the tidal marshes.

### **Questions/Comments:**

Q: Why does the map for Eden Landing show the Bay Trail going over Union City Boulevard?

A: There are a number of alternatives for the Bay Trail, and this figure is one conglomeration of the options. That option is one possible short-term future connection, rather than the long term alignment.

Comment: The figure said "Draft Preferred Alternative," and I was hoping that was not the case.

Response: That is correct; we have not categorized them at that level yet. We have not developed the alternatives yet. We have a series of maps that show different elements that

we are piecing together, and we are looking at all the options. We are still about two years out before having to do any CEQA/NEPA review.

Q: Is the CEQA/NEPA EIR document separate from this Eden Landing presentation right now?

A: Yes, Eden Landing is a year behind the other complexes. The next speaker will go over why, when he talks about the flood control issues.

Comment: Now that we're creating ecotones on the inboard side, and consequently creating potential mouse and other animal habitat, you will need to conduct analyses on that kind of impact. A transition zone that's several hundred feet wide doesn't provide a better buffer between the sensitive species and the trail if that transition zone is the habitat the animals might expand into.

Response: However, if you're right next to a marsh, especially at high tide, the mice might be literally pushed up onto the levee. Whereas now you would have this extensive broad transition zone that is going to be above the tidal range. This improves public access because you have a larger buffer.

Comment: It sounds though that you wouldn't have the mouse in that area because there wouldn't be enough habitat. What you're saying may be true. I am not sure how much of the ecotone you plan to be above mean high tide. If there will be hundreds of feet of just upland, that is different than what I'm imagining in terms of transition habitat.

Response: California Department of Fish & Wildlife has recently done salt marsh harvest mouse trapping in the Old Alameda Creek drainage area. Mice were caught throughout the area, including in the Baumberg Tract restoration site, which had zero habitat prior to being breached in 2008. There is good habitat along there, and it is an example that there are areas with coexistence opportunities.

Response: There's also a lot of salt marsh habitat taking hold in Pond E8A and portions of ponds E9 and E8X. There will be some other future projects along this transition zone between E14 and E9.

Comment: There could still be an issue of urban animals in the transition zone. When people walk dogs now where the slopes are steeper, they keep the dogs on the trail with them, but if you have open space, the dogs might not stay on the trail.

Response: Yes, that could be a possibility.

Comment: In Palo Alto, where you can walk onto the levees, there are areas with several trails, but people tend to take their dogs close to the ponds.

Response: Yes, I know which area you're talking about.

Comment: I am interested in the transition zone, and I am glad to see it in your design. There is a group of scientists that is looking at what changes sea level rise will bring to the Bay. They have identified this as priority habitat for restoration efforts. It is good that this project is including this.

Comment: This is a great opportunity to balance new habitat we'll be creating with public access. Two thousand acres in southern Eden Landing is a lot of area for restoration, so I don't think it's a lot to ask to incorporate public access. The transition zone may or may not be the best option, but there is definitely a great opportunity to create something significant.

Q: I am concerned about where the Bay Trail is going to go and how close it will be from birds by Pond E12. What is the disturbance issue with people, boats, and walking?

A: Laura Valoppi, our Project Lead Scientist, will talk about that in the science update presentation, which includes studies examining trail-wildlife interactions. To answer your other question, the kayak launch would be a Pond E12 Water Trail location.

Response: The State Coastal Conservancy is managing the program for the Bay Area Water Trail, which is intended to increase education about both safety issues getting on to the Bay and human-wildlife interaction. It is taking the existing network of launch sites around the Bay and enhancing those sites by increasing education. Right now the Water Trail program is working on a sign that graphically shows how far to stay away from different types of wildlife.

### ***Land Mass Concept***

Rohin Saleh of the Alameda County Flood Control District reviewed the District's potential "landmass" construction that could provide better flood protection than existing salt pond berms. However, the landmass would need to support tidal flows through the marsh. The County developed a model to simulate bay dynamics and flood risk and concluded the levees, marshes, and ponds provide substantial flood protection by dissipating wave energy and delaying flood potential. He showed an animation of model results.

Since the Bay would need to be separated from the Eden Landing ponds, a landmass structure would increase the protection level at a much lower cost than improving the back levee on the urban side of the ponds. The landmass would be approximately 130 feet wide and one foot above the 100-year tide level, and it would have a 30-to-1 back slope. Breaches along the sides of the Bay-side ponds (E1, E2, E4, and E7) would facilitate regular tidal flow. The County tested the hydraulics of the system and concluded it would support restoration efficiently.

The County is now in an optimization design phase to determine the right balance between flood protection and restoration potential. It is working closely with FEMA, the State Coastal Conservancy, the Department of Fish and Wildlife and other partners, and greatly appreciates their support.

### **Questions/Comments:**

Q: How much does the model depend on the internal breaches maintaining their size?

A: We are assuming the internal breaches will be 100 feet wide for the model. This distance was an overestimate.

Comment: I'm assuming that those levees are going to fall apart over time since there will be no maintenance.

Response: There's going to be a tipping point. We're going to leave the majority of the levees in place with breaches. For this optimization process, we are determining breach width and whether they need to be armored to hold that width for ten years. However, as the marshes develop and levees degrade, it will go through a progression of flooding from one compartment to the next and finally creating a marsh. It will then have a friction effect and provide flood protection.

Flood control engineers are worried about a 100-year flood and not allowing too much flow. Restoration managers need enough flow in and out with daily tides to create a functioning salt marsh. The County tested both extremes and is now calculating the balance to optimize those breaches.

Q: What is the average elevation for the crest of the landmass, and what kind of habitat would it support?

A: Approximately 11.5 feet for the land mass and 7 feet for the marsh plain.

Q: Would a lot of that landmass be at that height or would there be just a crest?

A: It would not be a crest. We are conducting geotechnical design for this landmass and testing different types of widths. FEMA has historically approved a fluvial system of a 100-foot-wide landmass. However, we are exploring whether 50 feet would be sufficient, 50 feet at that elevation with a gradual slope on the back.

Q: Would the breaches act as barriers, because this is a highway for foxes. In Alameda, we have a breakwater that is successful for roosting birds because we have a large gap between the mainland and the breakwater. You're saying there would be a 100-foot gap between the barrier and potential predators?

A: Yes, there would be a 100-foot break from predator access.

Q: Where does FEMA stand on approval for this? Does it have to go back to Washington for approval to move forward?

A: FEMA trusts the Alameda County team's work, and they have presented their plans to FEMA in Washington D.C. A FEMA representative had said at a recent meeting that FEMA did support them.

Q: Will you have to dredge where there will be breaches?

A: South Bay Salt Pond Restoration Project managers want to maintain trails, so they would breach through the J pond. They will also breach through the historic channel, and that will have to be bridged to maintain trail access. One of those breaches will be through that marsh, and that channel will likely have to be excavated and widened.

Q: Then are you going to leave the levees at their current elevation?

A: We will leave some levees at high elevation to separate the ponds, then gradually they will not be needed as the marshes are restored. It will be a gradual process.

A: Planners are not at the stage where they can isolate which levees they should leave or at what height.

Q: With respect to creating the old channel system, you won't get the same historical channels, at least the minor ones. Have you looked at how those channel formations will develop, and what the habitat will look like?

A: South Bay Salt Pond Restoration Project managers have looked at the existing levee network superimposed on historic slough channels. The modeling locations selected were based on much discussion for where and how many breaches should occur. But again, with the internal breaches, there may be potentially some five-foot breaches of small channels. It is not clear at this point how much that would affect the flooding. The model also doesn't have all the historic channels, but it is similar to the scale of modeling for ponds E8A, E9 and E8X.

A: We don't have the final sizes because we are still conducting the optimization studies. We wanted to incorporate many issues such as fish passage, circulation, flood control and restoration. We also want to make sure that the "breathing" is happening to have that restoration, and so we have to balance between conflicting goals.

Q: Do you have to maintain the landmass against unwanted vegetation growth?

A: We have been thinking about that. With sea level rise, it is a possibility. However, for the most part it should not require major regular maintenance.

Q: Since this is not an engineered structure, with no homes on the other side, are you not worried about seismic impacts, collapsing, or sinking? Do we have historical data on sliding or slumping?

A: Even though this is a landmass, it's an engineered landmass, so we have looked at seismic issues. It is one of the reasons for having a wide footprint. When we send a project like this to FEMA, one of the requirements is determining how seismically stable it is. As for sinking, the initial period for this landmass will take a while, perhaps 10 years, to stabilize and will need more dirt to maintain elevation. In the long term, however, sea level rise will be a greater concern than seismic activity.

A: This concept allows for two lines of protection with the horizontal levee plus the landmass. If they built the levee at the urban side of the ponds, they would have exactly the same issue but with only one line of protection.

Q: How do geologists work with the Hayward fault if they are expecting an earthquake in the next 30 years?

A: We do not have a specific answer for that because we need the geotechnical design data and details first. However, that issue will be addressed in the project.

Q: Since this would be an isolated segment, how would mice migrate if a colony is there? You don't want to isolate a colony.

A: Project managers' hope is that it will be a 2000-acre block of restoration with adequate area to colonize. There are mice in the Whale's Tail marsh at Eden Landing, and they could potentially migrate from there.

Comment: Mice like to enter the transition zone, and they don't go deep into tidal marshes. If those inner ponds are for tidal marsh, they might not be low enough. Even at low tide, there still might be some water in between. I'm still thinking about a connectivity issue unless you have connectivity along channels.

Response: Mice do live deep in the ponds. They live all over and throughout the marshes. At high tide, they will move up onto the slopes and even onto the grasslands at super high tides. This is set up to be a broad tidal marsh with transition zones on all sides, but the marsh is the key habitat for the harvest mouse.

Q: As you're going through your optimization analyses on the widths, what is the decision-making process for Alameda County? Do you have a mandate from the County in terms of a climate change/sea level rise planning process and have to report back soon?

A: We don't have a mandate from the County, but we are fortunate because Alameda County was selected as the first county to adopt the Rising Tide Project that the San Francisco Bay Conservation and Development Commission (BCDC) initiated, and we are close partners with them. BCDC has finished their sea level analyses for the northern and central parts of the county, and we are now continuing to analyze the southern part of the county in terms of flood control and making sure the entire coastline is studied.

Q: Then do you have your own target for when you want to complete the optimization analysis?

A: The optimization analysis is related to work with the State Coastal Conservancy, but sea level rise is a different issue.

## ***6. Fill for Transition Habitat***

Executive Project Manager John Bourgeois reviewed ideas for outside sources of sediment to build transition zones/ecotones. Managers are exploring a variety of sources. Those include:

- Dredge material – Managers are speaking with floodplain managers about the dredge material from their maintenance dredging projects.
- Upland fill – Inner Bair Island was filled virtually for free from this source.

Managers are working on obtaining the permits to be recipients of that fill material, but their are constraining issues such as traffic and cost. Ponds A1, A2W, R4, and A8 each need a couple million cubic yards of fill material. Alviso needs that fill the most, but it is also the most logistically difficult area to transport fill to. Phase 2 will analyze these logistics.

### **Questions/Comments:**

Q: Did Phase 1 take 10 years to complete?

A: Phase 1 took approximately 5 years. It has been ten years thus far for the entire project. There was a five-year planning process before Phase 1 began.

Q: How long will Phase 2 be?

A: We don't know since that depends on funding. It could go quickly, but no way to tell at this point.

Q: Will Phase 2 get us up to 50% tidal marsh acreage?

A: It will get us to almost 50%. We would have achieved restoration of 47% of our acreage.

Q: So you have 15 years for the scientific observation studies?

A: Those are ongoing. We're not doing reconfigured ponds in Phase 2 purposely because we do not have answers to the studies to know how effective they are. There may be ways we can easily manage the 53% of ponds that we haven't changed much. We are getting answers as we go. The research is intermingled with implementing the Project.

Q: How do we know whether we're making progress? What's the goal? Bird counts?

A: We should talk offline. We have a document that has those goals. We have goals such as habitat and species-specific goals. Additionally, for species we are not targeting, we have triggers we do not want to fall below. We have both goals and triggers.

## ***7. Science Update***

Laura Valoppi, Lead Project Scientist, gave the following summaries of recent Phase 1 science studies:

### ***Sediment***

USGS researchers have been studying the sediment flow through two main tributaries, Guadalupe River and Coyote Creek, and through the rest of the Bay at the Dumbarton Bridge. In the 2011 water year, more suspended sediment was moving out to the Bay than the prior two years. This could have been due to unusually high precipitation. However, while there was a net flux of sediment out to the Bay, there was still some sediment accumulation in the mudflat habitat around the tributaries.

### **Questions/Comments:**

Q: Why does it look like it is slightly depositional upstream?

A: This modeling did not consider the breaches in Pond A6, so what we think is happening is as the water rushes out of A6, it backs up the water upstream. We are working to see if we can get a more refined model with updated information.

### ***Mercury***

Ponds near Coyote Creek have been managed with extreme caution due to high mercury concentrations from historical mercury mines. Researchers found lower concentrations of remobilized mercury in Pond A6, the most contaminated pond, than prediction estimates used in the EIR. However, this could be because the slough with the most mercury has not eroded yet.

Researchers also studied the effects on local fish and birds of opening Pond A8. Fish in the pond had high mercury concentrations that decreased when the pond was opened, and fish in the slough had the opposite trend. Mercury concentrations remained high in Forster's tern eggs because they were laid in Pond A8 prior to the pond opening. Researchers are now exploring management options -- opening A8 earlier could decrease mercury levels in terns.

**Questions/Comments:**

Q: Did the scientists measure methylated or total mercury?

A: They analyzed for total mercury because it is easier to measure. However, since roughly 99% is in the methylated form, we can assume the total mercury is a measure of methylmercury, where it is most bioavailable and toxic.

***Birds***

Various bird studies had the following conclusions or preliminary results:

- Abundance of all bird species increased overall, but specialized birds dependent on high-saline ponds decreased.
- The preliminary results for birds' island preference suggest the best island configuration would be 3 to 5 islands (about 5 acres in size) in several ponds, far from levee borders, and linear in shape.
- The distance needed between trails and birds is shorter for wintering shorebirds than for waterfowl and nesting snowy plovers.

**Questions/Comments:**

Q: Can you explain the decrease in predation but an increase in gulls?

A: The depredated data include all predation. We know gulls are a major predator, but we do not know what proportion of predation was due to gulls.

***Trail User Survey***

According to an extensive survey, trail users want funds allocated towards trail maintenance and connecting the trail system. When funds were not considered, users wanted a connected trail system, maps, trail markers, and interpretive centers. The Project website has more details on the survey results and a video of the July science symposium presentation of this study. ([www.southbayrestoration.org](http://www.southbayrestoration.org))

**Questions/Comments:**

Comment: In the first seven years after the Oakland MLK wetland restoration, there was a high abundance of shorebirds because it was primarily open mudflats. Then pickleweed came in, which is not ideal for shorebirds, and so there was a decrease in shorebirds. Now with the South Bay Salt Ponds project, we have really good shorebird numbers because of improvements in pond management during the ISP and because there are mainly open mudflats. That will decrease as we get more vegetated tidal marsh. You may want to consider intertidal ponds, because they provide open water.

Response: The issue we have is that our ponds are so deeply-subsided, it's very difficult to have that higher elevation area and to excavate. We tried to do that at a smaller scale at ponds E8A and E9. I agree though, and we will look for opportunities for that. It is going to be challenging for the subsided ponds.

Comment: When you're doing your 30-to-1 slopes, and you're bringing in all that fill material, you might be able to create some of those in that area. They won't be deep in the marsh though.

Response: Then we would have vector control concerns there as well.

Q: Were the spikes in mercury levels in the stream fish tissue significant when the notch was opened?

A: I want to clarify that when mercury levels went down in October, it's still a highly contaminated area. It has always been higher than the reference areas and has stayed higher than the reference areas. Mercury levels just came down from those peaks. In Pond A8, prior to restoration and construction, 90% of terns had levels above threshold toxicity levels. After restoration, 100% were above that threshold. That does not mean they would have 100% reproduction failure, it means that fecundity would be reduced. We are talking with mercury researchers and discussing ways to manage this. One consideration is opening it earlier (or preferably year-round), which would keep those mercury levels lower.

Q: How will the results of the trail survey and recommendations for buffer distances inform the project going forward -- will there be major changes to the design?

A: The buffer distances were somewhat surprising, but we had already been using 300 feet from the trail to nesting islands, and these data do not change that too much. We have already begun incorporating measurements for snowy plovers into the design for 2012-2013. For Phase 2, there is not much managed pond work, as Phase 2 is more focused on tidal restoration.

A: Not all results were included in this presentation. The study had many more specific recommendations and suggestions that Project managers will consider as they move forward with Phase 2.

Q: Did the survey examine different types of users?

A: The trail-user satisfaction survey focused on all trail users, so they could be runners, bikers, walkers, etc. The results were aggregated, and I don't think they distinguished among the trail users.

Comment: I would be interested in that information. People who are birders versus bikers or joggers would want things differently.

Response: I don't believe that was analyzed, but that would be interesting. The details of the study are on the website.

Q: Since the studies recommend the islands should be spread over more ponds, does that suggest Pond SF2 may have reached a saturation point with the islands in terms of the density and the bird use?

A: When they studied Pond SF2 as the main area where they were looking at islands, they were also looking at the islands spread out throughout the complex. When analyzing the data, they were looking at other areas where islands occur as well. Preliminary results suggest that creating more islands in a pond is not an efficient use of our resources.

Q: Should that also be scaled to the size of the ponds? Or are the birds territorial and require a minimize island size or distance between?

A: For terns, they want to nest together, but their foraging area needs to be large enough to support that colony. They are more likely to be limited by density issues and not territorial. So perhaps, because they're colonial, they're not territorial and that's why we may only need a few islands.

Q: Do you expect to see changes in what habitat they select for their nests?

A: It depends on the species. Snowy plovers move around depending on what's dry; Forster's tern go back to the same location.

### ***8. Update on the Shoreline Study***

Brenda Buxton, Project Manager for the State Coastal Conservancy, provided an update on the administrative draft of the EIR/EIS/Shoreline Plan and study, and Judy McCrea of the U.S. Army Corps of Engineers joined her in answering questions. The Shoreline Study in the Alviso area is a collaborative effort among the Santa Clara Valley Water District, the State Coastal Conservancy, and the U.S. Army Corps of Engineers to address sea level rise with a more extensive flood protection solution and restore significant portions of habitat.

The preferred alternative was not different from the South Bay Salt Pond Restoration Project EIR. It had the same existing salt pond alignment, protective features and public access. Once this preferred alternative is in place and ties into riparian flood protection projects along the Guadalupe and Coyote rivers, managers would be able to restore all 3000 acres of ponds in a phased manner under an adaptive management program just like the Project.

The project will cost approximately \$112 million in total, which includes \$8 million for building the ecotone to keep it higher than the 100-year flood plain. The draft EIR/EIS/plan, together called the "integrated document," is currently under review by the Corps. Certain issues may not be resolved without legislation to allow the Corps to build ecosystem elements on U.S. Fish & Wildlife property. Ideally, the partners would like the draft integrated document to be available to the public in December 2013.

### **Questions/Comments:**

Q: Would bikers not be allowed onto the trail once the levee is complete?

A: I do not know what the Refuge's specific policies are for different users. However, the levee would not be paved, so commuter bicyclists would likely be deferred to the paved bike trail. Bicyclists would still likely be allowed onto the other trail.

Q: How does this relate to the South Bay Salt Ponds Restoration Project? Is it separate or the same as what they're doing?

A: The State Coastal Conservancy is working on both.

Q: If there are going to be two different EIRs, how consistent do the projects have to be to move forward?

A: The Shoreline Study Integrated Document is going to be consistent with the Programmatic EIS/EIR for the South Bay Salt Ponds Restoration project. What's coming out is the Shoreline Study Phase 1 Project. It's often getting mixed up with the South Bay Salt Pond Restoration Project's Phase 1 and Phase 2. The Shoreline Study Phase 1 document will address restoration of Ponds A9 through A15 and Pond A18, as well as flood risk management in Alviso and by the San Jose Santa Clara Water Pollution

Control Plant. Basically it is a project-level description of the programmatic level actions that were described in the Programmatic EIS/EIR.

A: It is similar to how the South Bay Salt Pond Restoration Project is doing a project-level analysis for Phase 2; this is just another project. It has to be a separate project because it includes properties outside of the South Bay Salt Pond Restoration Project, including Pond A18, which is owned by the City of San Jose. It's going to adhere to the programmatic guidelines as well as the South Bay Salt Pond Restoration Project adaptive management program.

Q: Are you integrating or collaborating with the efforts of the Adapting Rising Tides project?

A: The Adapting to Rising Rides (ART) is more of a large-scale adaptation toolbox for planners to use, while the Shoreline Study focuses on a relatively small set of the shoreline. Managers are aware of the ART and are engaged with the program, but they are separate projects working at different spatial scales.

Q: Do the cost estimates include the public access components? Is there a bridge or a tunnel in those estimates?

A: Yes. The estimates include two bridges, one estimated to be \$2 million, and another \$1 million bridge will be over Artesian Slough.

Q: Is the natural surface trail connecting to Milpitas consistent with the Water Pollution Control Plant master plan?

A: We are trying to be.

Q: Did you say that Pond A18 will be involved in the Shoreline Study? How does that work with the Water Pollution Control Plant master plan, which also calls for a restoration plan?

A: Yes, Pond A18 is part of the Shoreline Study. We are working to make those two documents consistent. The problem is that our project's analysis is at a higher level of specificity.

A: The Shoreline Study has been coordinating with the Water Pollution Control Plant since the beginning. The Corps was told that the Water Pollution Control Plant needed the Corps to come in and build the flood-risk management levee in order that the Plant plan could move forward. Plant planners have said that the Shoreline Study should do the detailed engineering to design the flood risk management and the restoration.

Comment: Under the Water Pollution Control Plant master plan, I don't think San Jose intended to be the sole implementer of that master plan. They are very interested in what the Santa Clara Valley Water District and the Corps plan to implement.

Q: From the public's standpoint, how can we distinguish and identify who should be mitigating what within the same pond? I'm hoping that will get clarified somewhere in the process.

A: The issue is that you can't mitigate on a Corps restoration project. The idea is that if you do a restoration project, you should not have to do any mitigation, but there are flood risk management issues as well. If it was just the flood risk management project, the

Corps would be including mitigation features. The idea of having a multi-purpose flood risk management and ecosystem restoration is that the Corps' restoration actions would mitigate the actions of their flood risk management.

Comment: But the Water Pollution Control Plant is using the pond for mitigation for their impacts. It is a complication in our coordination for our project, because it would technically be unavailable to the Water Pollution Control Plant for flood mitigation if it's a Corps project.

Response: This is an example of one of those complicated issues that the Corps has been trying resolve with their partners, both official cost-sharing partners in the study and the landowners, and why it has taken so long to determine future steps.

Q: Do the cost estimates include the transition zone?

A: Yes, that is why the cost estimates are higher than the typical 35% share formula to pay for the ecotone.

Q: If you're getting free fill material at Bair Island, can something similar be done in Alviso?

A: That is one of the goals for cost-savings, but for the cost estimates, Shoreline Study partners could not assume they could obtain that fill material the same way.

A: For the ecotone, we assumed we would use the same fill materials the Refuge is using for maintaining their levees. We assumed \$10 million, which is not relatively very high. For the levee, it would be a combination of some onsite and offsite material as well as buying some fill material.

## **9. Funding Climate for Restoration**

Amy Hutzel, Bay Program Manager for the State Coastal Conservancy, reviewed the history of funding for the South Bay Salt Pond Restoration Project and the future funding outlook for San Francisco Bay restoration and South Bay flood protection.

The Project is in its 10<sup>th</sup> year since the land was transferred from Cargill and has benefited from Senator Dianne Feinstein's support, federal appropriations, as well as state and water bonds. Unfortunately those bonds are diminishing rapidly, and the federal climate is also not great for appropriations right now.

There are enough funds to complete Phase 1 and portions of Phase 2. The State Coastal Conservancy board will meet in December to consider authorizing approximately \$2 million of Proposition 84 bond funds to get through the next few years of Phase 2 planning. The Project has also applied for an EPA grant, the San Francisco Bay Water Quality Improvement Program, which could provide \$1.4 million to fund Phase 2 and do some of the work associated with invasive *Spartina* re-vegetation and clapper rail enhancement. Additionally, the Shoreline Study received \$20 million when the Santa Clara Valley Water District's measure passed a couple years ago.

In the long term, the outlook is not as certain. There are some potentials at the local, state, and federal levels:

- Local – the San Francisco Bay Restoration Authority is a new regional entity created by the State Legislature and is consider putting an item on the ballot for about a \$10 tax per parcel in the Bay Area. This would go to support the Restoration Authority’s efforts in habitat restoration, flood management, and public access in the San Francisco Bay and Baylands. That would generate about \$150 million over ten years. There have been hurdles to get this item onto the ballot and find funding to run a campaign; however, the poll results are looking better than a year or two ago.
- State – Both the State Senate and Assembly are each introducing a new water bond. There’s a joint hearing today, and hopefully there will be a water bond item on the November 2014 ballot. \$75 million was also recently added for baylands restoration, flood protection, etc.
- Federal – The most important item is getting the Shoreline Study authorized in the Water Resources Development Act (WRDA) through the Senate. The Shoreline Study will need to resolve the issue of the Army Corps doing ecosystem restoration on USFWS land.

As for stakeholders and Forum members, the South Bay Salt Pond Restoration Project website now has a “Donate” button.

### ***10. Looking to 2014***

Executive Project Manager John Bourgeois said the new year will see the completion of Phase 1 at Eden Landing, the final environmental documents for Phase 2 in Alviso and Ravenswood, alternatives development for Eden Landing Phase 2, and continued monitoring and adaptive management.

Meeting participants are invited to contact Project managers with questions and concerns:

- John Bourgeois, [jbourgeois@coastalconservancy.ca.gov](mailto:jbourgeois@coastalconservancy.ca.gov)
- Lead Scientist Laura Valoppi, [laura\\_valoppi@usgs.gov](mailto:laura_valoppi@usgs.gov)
- Eric Mruz, Don Edwards Refuge Manager, [Eric\\_Mruz@fws.gov](mailto:Eric_Mruz@fws.gov)
- John Krause, Eden Landing Ecological Reserve Manager, [jkrause@dfg.gov](mailto:jkrause@dfg.gov).

**Attachment 1: September 24 2013 Meeting Attendance**

<b>Name</b>	<b>Organization/Affiliation</b>
Kwablah Attiogbe	Alameda Flood Control District
Donna Ball	Save The Bay
Scott Bodensteiner	Leviathan Environmental
John Bourgeois	SBSPR Executive Project Manager
Matt Brennan	ESA
Max Busnardo	H.T. Harvey
Brenda Buxton	State Coastal Conservancy
Evelyn Cormier	Ohlone Audubon, CCCR
Scott Demers	H.T. Harvey
Gita Dev	Sierra Club
Ron Duke	H.T. Harvey
Arthur Feinstein	CCCR
Craig Garner	Ducks Unlimited
Mike Giari	Port of Redwood City
Tim Grillo	Union Sanitary District
Dave Halsing	URS
Jessica Hartzell	US Senator Feinstein's Office
Genny Haskins	USFWS
Diane Heinze	Port of Oakland
Margaret Henderson	Questa Engineering Corporation
Jennifer Heroux	USFWS
Carin High	CCCR
Stephanie Horii	SBSPR Facilitation Team
Amy Hutzell	State Coastal Conservancy
Ellen Johnck	Environmental consultant
Ralph Johnson	Flood Control Expert
Shani Kleinhaus	SCVAS
John Krause	CDFG
Jane Lavelle	SFPUC
Pat Mapelli	Cargill Salt
John Marchant	City of Mountain View
Judy McCrea	USACE
Karen McDonough	San Jose ESD
Eileen McLaughlin	CCCR
Anne Morkill	USFWS
Stacy Moskal	USGS
Chindi Peavey	ACMAD
Sara Piotter	USGS
Rohin Saleh	Alameda Flood Control District

Richard Santos	Santa Clara Valley Water District
Renee Spenst	Ducks Unlimited
Ariel Stephens	Bay Planning Coalition
Dick Stovel	
David Thomas	PG&E
Laura Thompson	ABAG
Laura Valoppi	SBSPR Lead Scientist