South Bay Salt Pond Restoration Project

Restoring the Wild Heart of the South Bay

Stakeholder Forum & Working Groups Meeting

Tuesday, August 15, 2017
1:00-4:00 p.m.
Don Edwards San Francisco Bay National Wildlife Refuge 3rd Floor Auditorium
1 Marshlands Rd., Fremont, CA

Background: The Stakeholder Forum (Forum) and its three geographic working groups met on Tuesday, August 15, 2017 from 1:00 to 4:00 p.m. at the Don Edwards San Francisco Bay National Wildlife Refuge Headquarters auditorium. 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 (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. At the meeting, Forum members received handouts on Phase 2 construction projects at each of the three pond complexes. 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

Jared Underwood, Refuge Manager, welcomed Forum members, Working Group members and the public. Facilitator Ariel Ambruster led introductions, provided background on the Stakeholder Forum process, and reviewed the agenda, which included the following items:

- Phase 1 Progress
- Phase 2: Design, Fill, Truck Routes
- Resilient Design Challenge
- Measure AA
- Science Program Update
- South Bay Shoreline Study
- Looking Ahead to 2018

2. Tracking our Progress: Highlights of 2016 & 2017

John Bourgeois, Executive Project Manager, provided background information on the Project and summarized Project activities to date. The Project encompasses three distinct pond complexes and started in 2003 with the transfer of 15,100 acres of industrial salt ponds.
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 an adaptive

management framework to guide actions. This framework includes project phases and experimentation.

All Phase 1 implementation projects are complete; 25% percent of Project ponds are now restored, and the Project has made 10% progress toward its overall goal. Phase 1 restored 1600 acres to tidal marsh habitat, partially restored 1440 acres and enhanced 710 acres of ponds. Restoration activities have been highly successful: restored marsh now attracts and supports endangered species such as the salt marsh harvest mouse and Ridgway's rail. The Project Management Team (PMT) is working toward full restoration while being mindful of concerns such as mercury contamination. Phase 1 public access projects developed seven miles of new trails.

John Krause of the California Department of Fish and Wildlife provided an update on Eden Landing Phase 1 actions. These included full tidal restoration of ponds E8A, E8X and E9 for development of tidal salt marsh, and reconfiguring ponds E12 and E13 to provide a variety of salinities for shorebirds and waterbirds. Habitat enhancements at Pond E14 added oyster shells to provide camouflage for nesting snowy plovers. New public access includes a trail out to the Bay, a seasonal loop trail through historical saltworks, and a kayak launch. The loop trail is closed during waterbird nesting season, typically March 15-September 15 to ensure no adverse effects on snowy plover, least tern, avocet and other species.

Question/Comments:
Q: Is the Bay Trail section already established?
A: The trails in Eden Landing are completed—they are spur trails from the Bay Trail spine. In Phase 2 the goal is to further continue the Bay Trail from Eden Landing to Alameda Creek Regional Trail.

Q: Does the Project have a policy on accessibility for people with disabilities?
A: I am not sure that it is as an explicit policy, but ADA accessibility is one of our goals. The kayak launch is ADA accessible and the trail is an all-weather access gravel trail.

Q: What were the funding sources for Phase 1?
A: Each one of the Phase 1 projects had multiple and diverse funding sources. Some of these sources included Proposition 50 money, mitigation funding, the Resources Legacy Foundation and other philanthropic organizations.

3. Phase 2 Overview

John Bourgeois said that in Phase 2, managers would like to achieve restoring close to 50% of the acreage to tidal marsh to make sure the Project is on track with its goal to reach 50% restoration and 50% ponds by 2030. In Phase 1 managers focused on the "low hanging fruit" and built experiments to address the most challenging scientific uncertainties. In Phase 2, managers are focused on restoring tidal marsh and addressing sea level rise by building upland transition zones to serve as refugia habitat for wildlife to migrate to.

The input managers received from stakeholders and the public at previous Forum meetings helped them develop evaluation criteria for Phase 2. Guiding principles for Phase 2 are 1) don't increase flood risk; and 2) progress toward the 50-50 vision. The primary criteria managers use when evaluating a potential Phase 2 project include:

- Likelihood of making progress toward Project objectives
- Opportunities for Adaptive Management studies

- Value in building Project support
- Readiness to proceed
- Input from stakeholders

4. Phase 2 in Eden Landing

John Bourgeois discussed Phase 2 options for Eden Landing. Several ponds will remain as managed ponds for a couple of decades before managers evaluate whether to convert any to tidal marshlands. More than 2,000 acres primarily in southern Eden Landing between the Alameda Creek Flood Control Channel and Old Alameda Creek will likely be restored to tidal marsh.

Managers are reviewing various opportunities for public access, breaches, levees, and upland transition habitat from salt marsh and are considering how to best phase the restoration. They would like to provide connections for the Bay Trail along portions of Eden Landing instead of along city streets. The Eden Landing Phase 2 draft environmental analysis is expected to come out in the fall and managers hope to have a permitted project in place by 2018. A new element included in the environmental impact statement and report (EIS/R) documents is an area to store sediments from Bay dredging projects for eventual use to build upland habitat. There will be another full meeting about Eden Landing when the EIS/R is released for public comment.

Questions/Comments:

Q: Are you still considering building a landmass at the front of the project?
A: Yes, we are still considering it, though we are not calling it a landmass; we are proposing a broad transition zone at the Bayfront. There are three strategies to deal with flood protection and that is one of them.

5. Phase 2 in Alviso and Ravenswood

Jared Underwood gave an overview of Phase 2 design options for four areas at the Don Edwards San Francisco Bay National Wildlife Refuge: the Ravenswood ponds and three projects in Alviso (the Island Ponds, Pond A8, and the Mountain View area) [see PowerPoint slides for designs].

Island Ponds Preferred Alternative

The Alviso Island Ponds (A19, A20, and A21) were breached to the Bay in 2006. The result has been that the pond complex is filling in from the bayside areas first. In Phase 2, the plan is to further breach A19 on the Mud Slough side and lower levees between the marshes to increase sedimentation rates to speed the transition to salt marsh. Managers will leave high tide refugia zones.

A8 Preferred Alternative

In Alviso ponds A8 and A8S, the ponds will be fully breached, and large habitat transition zones will be built on the southern edges, protecting and buffering the landfill. The Project will also study legacy mercury in this area. Breaches may need to be phased as scour is likely to be significant. The upland design leaves a gap to allow for a potential project to reconnect adjacent creeks with the Bay.

Questions/Comments:

Q: Is the plan to put uncompacted fill dirt into A8?
A: No. The dirt is going to be compacted to a 30:1 slope. Currently, A8 is not fully breached, but open to tidal influence through an 8-gate notch.

Q: How will you address plans to develop a hotel next door?

A: We have been trying to meet with the developers to encourage them to consider our restoration activities more carefully. We do not have control over the private land, but we are working with our partners as best we can.

Q: What do you need the developers to consider?
A: We have existing property access easements that the new landowners are legally obligated to fulfill. We feel the developers do not fully understand the degree to which we need to retain access for levee maintenance, dirt hailing, moving trucks, etc. during Phase 2.

Q: Is the notch fully open?
A: Yes, as of June 2017.

Comment: I would like to suggest the Project consider developing a ferry channel to connect to Google headquarters.
Response: The Project cannot provide access to a private company, since that is considered a gift of public funds, which is not legal in this context.

Q: Will Phase 2 at the A8 Pond complex include levee improvements to address sea level rise along the Bay Trail?
A: Data and projections indicate there is not a need for flood control levees in this area of the Project, and that we can safely breach the levee without flood control implications. There are potential future plans to improve levees at the same time as developing more trail connections.

Comment: If you are going to build a levee, please consider dedicating different trails for different uses, particularly different types of vehicles such as e-bikes.

Mountain View Preferred Alternative

Currently, ponds A1 and A2W are ambient bay salinity type ponds (3-4 feet subsided at 0 feet elevation). The intent in Phase 2 is to turn both ponds fully tidal. However, the Project needs to build a flood protection levee along the Coast Casey Forebay and between A1 and the City of Mountain View's Charleston Slough. While a previously discussed option was to open Pond A1 to the Slough, we are not considering incorporating Charleston Slough at this time. The plan will also include creating large transition zones (30:1 slope ratio) to protect landfill areas and create habitat. For public access, we will retain and improve existing trails (e.g. add an ADA accessible switch back). A short new spur trail will be built to an observation platform looking out over Charleston Slough and the restored tidal marsh. There will be another out-and-back trail along the edge of the pond leading out to the Bay.

Questions/Comments:
Q: In reference to the visual simulation of the viewing platform, is it anticipated that the water levels in A1 and A2W will be controlled such that the marsh surface will appear above the water?
A: No. It will probably take a decade for the area to look like the visualization (i.e. for the pond to fully transition to tidal marsh).

Q: Given all the work that is required and the public money to be spent, we want the public to be able to see a landscape they can connect with and support. Will there be enough tidal effect so that people can see things they can support, birds in particular?
A: In the long term, the area in question will be a significantly vegetated tidal marsh section and will provide habitat for species that utilize those particular conditions. Also, the placement of the viewing platform will provide an opportunity for visitors to compare the difference between Charleston Slough and the restored tidal marsh.

Q: How many people do you expect on the Bay Trail? Are the trail connections along the slough? How much traffic do you expect along the restored areas?
A: It's hard to forecast, but we know this is a high-use area. We think trail traffic will be similar to the trail on the other side of Stevens Creek.

Q: What is the reasoning behind not incorporating Charleston Slough in Phase 2?
A: The City of Mountain View owns Charleston Slough, from which they pump water for the nearby sailing lake perched on top of the landfill. The City purchased the area from Cargill and inherited the mitigation requirement to restore 56 acres in the 112 acre pond to salt marsh. We originally thought it might be possible to collaborate on a project to restore more contiguous marsh area. In the course of discussing potential options there was concern from the National Marine Fisheries Service, which would have required a fish screen at the pump in case any protected steelhead from Stevens Creek ended up there. We were concerned about the feasibility of long term maintenance of a fish screen in that area because of the amount of sedimentation there. Mountain View is still a valued Project partner and we are having conversations about what could be done in the future.

Q: Will proposed Phase 2 actions in Mountain View increase flood risk in Palo Alto?
A: No, proposed restoration actions will decrease the flood risk (i.e. close the low spot in the levee). There are also plans to build a 50-year flood protection/sea level rise levee in this area.

Q: Will you be discussing the proposed "super levee" projects?
A: Unfortunately I'm not familiar with that project.

Q: Is all this restoration going to be underwater in 50 years?
A: Based on projection data to date, no. If sediment supply stays high, these marshes are sustainable for 50-plus years. What happened in Alviso is a great comparison to what we face with sea level rise. During intense groundwater extraction in the Alviso area, when land was subsiding, the marshes were able to keep pace and even expanded during that period. There is a lot of sediment in the South Bay and accretion rates have been very promising.

Ravenswood Preferred Alternative

This pond complex (R3, R4, R5 and S5 ponds) is right next to old landfills that are currently city parks. Managers are proposing several types of ponds to achieve a variety of habitats. The plan is to restore Pond R4 to tidal marsh and reinforce the All American Canal inner levee. Pond R3 will remain as a dry pond for snowy plovers, with additional water control structures for vegetation and habitat control. Ponds R5 and S5 will be managed for deep water habitat for water fowl. The design includes large transition zones along the landfill/park and levee. The plan is to connect the existing Bay Trail to the pond complexes from the highway to converge the public access area where the three habitat types meet. There will be benches and interpretive panels in a similar style to what has been done in other Project areas and in neighboring parks.

John Bourgeois provided examples of existing signage for the Project and in neighboring parks, saying the goal is to be visually compatible. He also showed examples of proposed fencing. Managers will install a low fence between the highway and the habitats to prevent trash from blowing in, the entry of dogs, and chicks getting out. There will be pedestrian gates for accessible areas and higher fences with more protection for prohibited areas.

Questions/Comments:
Q: What happens if the nearby developers deny the Project easement access?

A: The developers are not legally allowed to deny the Project access, since the easements the Refuge has were inherited with the property ownership change (from Cargill).

Q: Has there been any discussion or collaboration with Menlo Park with regard to impact on Bedwell Bayfront Park?
A: Yes, we have been in collaboration with many cities including Menlo Park. We participated in their master planning process. We have also presented to the Friends of Bayfront Park and before the Parks Commission.

Q: Are proposed Phase 2 actions in this area also a solution for Redwood City's flood control problems?
A: The portion of the project that addressed this issue in the EIR was removed. We considered developing a high flow bypass connecting the Bayfront Canal to the deep water ponds, which would not eliminate the flood problem, but would help. In evaluating the idea, we had to address water quality concerns. The water quality data was not sufficient enough to show no impact, so we had to set that idea aside for now. However, we are building our project such that a high flow bypass could be included in the future. Local government is currently working on those water quality issues with the Water Board.

Q: Is there a disconnect between what Redwood City would like to see happen for flood control and what is proposed in the Ravenswood Preferred Alternative? Would water need to be pumped?
A: There is no conflict. The water cannot get out of the flat gate. The potential high flow bypass would essentially be a spillover point into our ponds.

Q: Where is the proposed reach/ intake site in R4 located? Why is there an excavation area in the proposed design?
A: We originally proposed breaching at the natural historic slough site, but there are Ridgway's rail nests in the existing marsh in the adjacent Ravenswood Slough. We are breaching at a different site to minimize the impact to them. The historic slough path extends under Bedwell Bayfront Park, so we are excavating a small area near that crossover to make sure the habitat can extend all the way to the edge of the pond.

Q: Will the deep water ponds (R5 & S5) be deeper than the tidal pond in Bedwell Park?
A: It will be deeper. It will likely look like the tidal pond in Bedwell for a while as it forms, but eventually will provide habitat for different wildlife.

Comment: In the case of Bair Island, it was easy to find dirt to build the 10:1 slopes, but we had challenges with finding dirt to meet compaction specifications.

Q: How accessible are the sites in terms of public parking amenities and public transit?
A: There is plenty of parking at some of the sites (e.g. extensive parking at Ravenswood). One interesting development related to access is that Facebook is looking at building a pedestrian bridge over the highway that would connect the Belle Haven neighborhood through their campus to the Bay Trail. However, there are not great public transit connections.

Q: With regard to the existing Cargill pipeline depicted in the design visuals by Pond R3, is that the leaking pipeline? Will that pipeline remain there in Phase 2?
A: Yes. Cargill has not indicated they will be changing anything about the pipeline. We included the pipeline in our designs for reference. Cargill participates in our Stakeholder Forum and we communicate with them regularly.

Q: Would it be possible for the project to install a ferry dock where the dock used to be at the Dumbarton Bridge?
A: The Project does not have plans to do so. That area is state land. The old dock was left as a fishing pier, but was completely removed recently.

Q: The San Francisco Bay is a major flyover stop for migratory birds. How is the Project tracking metrics and studying whether Pond R5 will provide enough deep water habitat for birds?
A: It is important to remember that each pond is situated within the larger context of the overall Project. However, we will address progress on specific metrics and targets in the science update on today's agenda.

Q: With regard to flood control structures at Ravenswood, where would the flood waters go?
A: The San Francisquito Joint Powers Authority (JPA) was originally formed to look at fluvial flooding but now they also focus on tidal flood protection analysis. The JPA is analyzing tidal flood protection all along this area. The Project is working with them as they select alignments for future levees (which would connect to into high ground at Bedwell Park). The Project is building up the All American Canal levee for restoration purposes, not for flood protection.

Comment: Of this large area of Ravenswood, it looks like barely 50% will be restored to tidal marsh habitat. It seems like a lot of space is being dedicated to plover habitat.
Response: The Project approach to habitat is holistic and extends beyond this particular pond complex. All the data show that R3 is a hotspot for plovers. The 50:50 marsh to pond ratio is for the whole Project area. We still have more ponds for potential Phase 3 projects.
Comment: Habitat at R3 can also be used by multiple species such as other roosting birds and California least terns.

6. Upland Transition Habitat

John Bourgeois said all new projects will include upland transition habitat zones. Transition zones are very important because the current transition between uplands and wetlands is very sharp, and many species do not have anywhere to go during king tides. Managers want to recreate more gradual slopes like those that would naturally occur. In addition to providing high tide refugia for species, the gradual slope provides flood protection benefits as well.

He reviewed the standard 30-to-1 slope design for transition habitat and showed a variety of typical designs [see PowerPoint slides]. Managers plan to build some experimental slope areas as well. For example, one design includes a scalloped edge with slopes from 10-to-1 to 40-to-1 to learn about erosion and plant establishment differences.

Last year the Project received a lot of good input when it held an all-day design charrette on transition habitat. Managers want to have flexibility with the designs in case it is difficult to obtain enough dirt. The transition slopes are designed to have positive drainage so mosquito habitat is not created. There are several regulatory issues managers still need to address to build the zones, since many policies were written to prevent fill dirt in the Bay.

Questions/Comments:
Comment: The levees at Bair Island are at least 10-to-1.

Q: Is there any benefit to having a varying slope?
A: We are building experimental slopes both within ponds and to provide comparison to the standard 30-to-1 ratio.

Q: Are you working with neighbors–such as Bedwell Park–from which the Project could potentially borrow or convert edge areas to habitat transition zones?
A: We chose the particular areas to put in habitat transition zones precisely for that reason–that they are next to parks or landfills. Unfortunately, some of the edge areas are already too high, but we pursue it where possible.

Q: Is there flood protection value to transitional habitat?
A: We think so; we want to study the wave dampening effect in particular.

Q: What is the proposed timeframe for building the habitat transition zones?
A: Ideally they would be built in two construction seasons, but realistically we think they will be built in four. However we will try to obtain fill dirt opportunistically. One of our dirt broker partners told us there is more dirt available regionally than trucks that can carry it. We need to make sure it is to the right quality and specifications for our project, and that it is close enough for economic efficiency.

Q: Will *salinas* [natural salt flats] and seasonal wetlands be part of these habitat areas?
A: Not purposefully. There may be a lot of differential sediment incidentally, which could create these depressional areas.

Q: Will burrowing animals be allowed in the upland transition zones?
A: Yes, these zones are not flood control levees.

Q: Is the Project using US Environmental Protection Agency (EPA) funds?
A: We are using some EPA grants, but we do not expect we can count on water quality improvement fund money in the future.

Comment: Upland transition zones are very important and complement the idea of a complete marsh. This is a great feature of the Project.
Response: A lot of regional guidance documents also extoll the importance of these zones.

7. Dirt and Truck Traffic Plans

John Bourgeois provided an update on dirt hauling and truck traffic plans for Alviso, Ravenswood, and Mountain View [see PowerPoint slides for routes].

Alviso Dirt Hauling

The Refuge inherited levee maintenance obligations from Cargill. Alviso has an area that is currently scheduled for regular levee maintenance. This area would be very vulnerable if outward levees were to breach, and it flooded in the 1980s. Folks can expect to see a significant number of trucks coming through starting this summer and continuing until it starts to rain. Trucks will be coming in along First Street, Grant, Katherine, and into the marina. Trucks will immediately turn off the road onto pavers. The truck traffic flow here will be out-and-back.

Q: Is there any funding to repair trashed roads?
A: Yes, road repair is part of the maintenance project.

Ravenswood Dirt Hauling

The Project hopes to start bringing in dirt for anticipated projects soon, potentially starting this summer. After exiting the highway onto Marsh Road, trucks will come into the park and circulate

on levee roads. One of the first tasks will be to build a parallel road system to haul dirt so there is a physical separation of truck traffic. We will temporarily move the main trail entrance to the northern trail entrance. There will be some trail closures and an active flag person to monitor truck and pedestrian traffic. We have been active in communicating with Friends of Bayfront Park and the Parks Commission. We still need to submit the final traffic plan to the City of Menlo Park.

Questions/Comments:
Q: What about clapper [Ridgway's] rail nesting?
A: The biological opinion for the project does include work windows for rails. We may also do surveys during the dirt hauling period.

Q: Some of the proposed trail closures are in well-used areas. When will the trails be closed?
A: Trails will only be closed during active hauling, during work week hours. There will be signage and we have talked to Menlo Park about how to effectively communicate when and where things are closed or open.

Q: What happens to the parallel road system when hauling is completed?
A: We can use that material to build other parts of the project. By that point, we might have permits for Phase 2, so we can start building upland transition zones, for example.

Q: Is there any way to create safe passage across levees for wildlife?
A: We are open to ideas, but constructing passages might be logistically challenging. We would like to know if there are particular hotspots that pose a danger to wildlife.

Q: How many days will dirt hauling take? August and September are high trail use periods.
A: We do not have that level of detail yet. The approach is to close the trail and get as much work done as possible. Work days might be intense in terms of truck traffic, but we would like to minimize the number of closure days.

Q: Who is going to manage the trucks?
A: Ducks Unlimited is the contractor for Phase 2 construction and Pacific States is the contractor for dirt hauling (the same contractors the Refuge used for Bair Island).

Mountain View Dirt Hauling

The routes in Mountain View are still very tentative at this point. In the current proposed design, truck traffic will come in along San Antonio and then take Terminal Boulevard. There will be active flagging at pedestrian crossing points. We are still in negotiations about truck traffic routes here.

Questions/Comments:
Comment: One of the hotspots for bird crossing deaths is near Terminal Boulevard, Pond A1, and the Coast Casey Forebay (where birds nest on islands, then cross to the Forebay).
Comment: The City of Palo Alto is planning to build a bridge (maybe next year) and will use San Antonio Boulevard as well during construction.

Q: Is it possible for the Project to build terraced/dual-tier levees for separated trails (e.g. for e-bikes)?
A: That is not our current design right now. We would need to look at several factors including how it fits into Refuge policy.

Comment: It would be great to see more use of the trail. One problem is that with pedestrians and wildlife gazing, there can be conflict with cyclists. This raises an interesting issue about different trail uses and transportation.
Comment: The question of electric bikes has been difficult for the Bay Trail to address. Current State law allows for some e-bikes, but local jurisdictions also have ability to make rules.

8. Guest Presentations

Resilient by Design Bay Area Challenge

Zoe Siegel and Marisa Villarreal, Program Managers for the Resilient by Design Bay Area Challenge, presented on the Bay Area design challenge currently underway.

The first iteration of the challenge happened in New York City after Hurricane Sandy. The Resilient by Design organization is funded by the Rockefeller Foundation with support from local agencies, like the State Coastal Conservancy. The goal of the initiative is to build resilient communities and shorelines in the face of climate change. The definition of resilience encompasses physical, social, and ecological dimensions. The initiative establishes 10 interdisciplinary teams that include engineers, ecologists, community-based organizations, and architects. Each team designs an implementable project, and there will be a total of 10 projects designed for the Bay Area. The initiative occurs in three phases. We are at the end of the challenge launch phase. We received over 360 applications for team members and 84 site request submissions. In September, the selected design teams will come to the Bay Area for a tour and the research phase. This phase includes consultation with a research advisory committee that will work to match the team with the potential sites. Community support for the proposed site to be part of the design challenge is included in the criteria for site selection. Once paired with a site, the design team will move into an intensive design phase. In May of 2018 we will have 10 innovative solutions around the Bay. After designs are completed, the initiative and partners will work with the teams to develop finance plans for implementation.

The presenters invited participants to attend the kickoff event in Richmond on September 10 to meet the design teams and celebrate the beginning of the design phase.

Questions/Comments:
Q: Will there be opportunities for public input?
A: Yes, there will be many public engagement events throughout the fall. The proposed designs will go through a public review and input phase.
Comment: Southern Alameda County is one of areas that have been chosen as a preliminary tour site for the research phase. There is a lot of interest in Alviso and Eden Landing as potential sites.

Q: Where are the proposed design site locations?
A: Those will be determined after the research phase is completed.

Q: Is the design focus on sea level rise or flood protection or other aspects?
A: Every site will have some element of flood protection and address sea level rise, but will also include more benefits, such as social or economic. We are producing resources for teams to look at to think about resilience. We want teams to think about the other potential future shocks and stressors in the Bay as well. Given that a disaster like Hurricane Sandy has not occurred yet, we are thinking proactively.

Q: How many of the design outcomes of the challenge in New York were codified into zoning or land use policies? Where is this headed?

A: Eight of the 10 projects in New York are going through the review process to be built.

Q: What kinds of project were designed for New York?
A: The goal of the challenge in New York was to produce a variety of designs. Some primarily addressed water systems and ecological resilience, while others addressed social resilience and land use issues.

Q: What is being designed? What are some examples of potential projects? Are we talking about educational programming?
A: It would have to be something more concrete than that. There has to be a physical element. The design teams will propose their desired programming on the site and what kinds of benefits the site would provide. The teams have different ways of thinking about potential projects.

Q: Will there be stakeholder groups?
A: We invite everyone to participate. We want to partner with local groups who are working on the ground and know the potential sites well. We reached out to John Bourgeois to think through the tours and the sites, and how to connect to the relevant stakeholders.

Q: Can a proposed design include things that have to do with changing codes in a particular jurisdiction—which might be the primary need to address resilience issues?
A: In New York, some of the teams approached projects in this way—answering what are the levers that need to be adjusted, how to change ordinances and codes. There is a tension with that approach because we want things to be implementable and funded. We want to use this as an opportunity to think outside the box. It will be up to individual teams to decide on their approach and what will work with the diversity of sites.

Q: There is already a proposed design at Eden Landing and an EIR will be coming out shortly. How does the Resilient by Design challenge fit into the current projects at Eden Landing?
A: We do not want to be in conflict with other projects, but provide the opportunity for expansion into areas where there is not necessarily work being done to address resilience in the landscape.
John Bourgeois: This has been one of my questions as well. However, we think there are some opportunities for creative thinking. If we were to consider incorporating elements of a design that came out of the challenge, it might require supplemental environmental documentation, or it might simply be a matter of moving to implementation. We are discussing some of these issues in the EIR.

Measure AA

Matt Gerhart, Bay Program Manager, State Coastal Conservancy, provided an update on Measure AA passed in 2016.

The ballot measure institutes a $12 parcel tax and is the first regional parcel tax in California. The measure is estimated to generate $25 million a year for 25 years. The entity that will receive and manage the funds, the San Francisco Bay Restoration Authority, was established in years prior but did not have significant funding until Measure AA. The tax will be collected this fall and the Restoration Authority is busy preparing for granting funds. The key purposes of the funds are to expand efforts in habitat restoration, flood control protection, public access, water quality improvements, and trash pollution prevention. The Restoration Authority revised funding guidelines with input received from an advisory committee and public comments. The draft request for proposals (RFP) is on the website (www.SFBayRestore.org). The final RFP will be approved at the September 8, 2017 Restoration Authority meeting, and the solicitation will go from September through November. The recurring annual grant process will likely include an

RFP release in the fall, project proposal review over winter, and awards in the spring. The monies can fund design, planning, construction, permitting, and monitoring. The Restoration Authority is focused on granting the full $25 million through both small and large projects. The measure is intended to leverage other funding as well.

Questions/Comments:
Q: Does the grant require fund matching?
A: Leveraging other funds is good, but there is no specific threshold applicants have to meet.

Q: What is the expected time horizon for the implementation of chosen projects?
A: The Restoration Authority does not want to preclude longer term projects, but the preferred timeline is completion within three to five years or consider phasing. The goal is to have projects complete the California Environmental Quality Act (CEQA) process within 12 months of applying and receiving funding approval.

Q: Could this funding be used for a feasibility study for a potential State Parks project to convert a landfill into a park?
A: All projects have to have a nexus with habitat restoration. Given the interest in having projects complete the CEQA process within a shorter time period, a feasibility study would be competing against grant timeliness.

Q: Please clarify how CEQA impacts potential projects that focus on planning activities.
A: Planning as an activity is exempt from CEQA.

Q: Can any public or private organization apply for funding?
A: Public agencies and nonprofit organizations can apply for funding, and there is some discussion about what type of private entities could apply. Grants need to go to a legal entity.

9. Science Update

Lynne Trulio, Project Interim Lead Scientist, shared Project progress in avoiding impacts, achieving goals and learning about uncertainties. In 2015, the PMT and Project scientists reviewed data on impacts and progress and, for each key topic, assigned one of the following stoplight ratings to reflect trends at the end of Phase 1:

- Meeting/exceeding expectations = dark green
- Trending positive = light green
- Uncertain = yellow
- Trending negative = orange
- Not meeting expectations = red (conditions trigger a management action)

The ratings represent an assessment only at a point in time (a snapshot). She provided highlights from several of the key topic areas:

- **Sediment and Marshes—**Data show that there is quite a bit of sediment in the Bay and marshes are building up quickly in restored ponds. However, sediment supply fluctuates and sea level rise is still a consideration. Progress is **trending positive** and **meeting/exceeding expectations**.
- **Rails, Mice, Fish—**Salt marsh harvest mice and breeding Ridgway's rails were found at the Island Ponds, native fishes abound, and harbor seal numbers are holding. There is still some concern about migrating salmonid species and the impacts of removing invasive Spartina on rails. Progress is **trending positive**.

- **Mercury and Species—**Construction in high-mercury ponds has caused short-term increases in bioavailable mercury in fish and tern eggs which then decrease over time. Ambient methylmercury levels are high in the South Bay, and levels in nesting birds' eggs are a concern. Progress is **not meeting expectations** in the short-term (during/immediately after construction), but **trending positive** for the longer term (post-construction).
- **Migratory Water Birds—**Managing former industrial salt ponds as habitat has resulted in a doubling of migratory bird numbers. In Phase 2, habitat for pond-loving species will be reduced and numbers might decrease. The original goal was to maintain the diversity and population noted at the beginning of the Project. Progress is **trending positive**.
- **Nesting Birds—**The Project made islands to combat nesting bird habitat loss, but the birds did not use them. Management actions included social attraction experiments, which were successful for some species (e.g. Caspian terns), and oyster shell enhancements for plovers. Endangered California least terns have nested this year at Eden Landing. Ongoing concerns include the threat of gulls and corvids as serious predators and methylmercury levels. Progress **is not meeting expectations** for the creation of islands, and **uncertain** for the impact of California gulls.
- **Snowy Plovers—**Breeding numbers are increasing. However, the conversion of mudflats to tidal marsh will reduce plover habitat in Phase 2 and predators remain a concern. Progress is **meeting/exceeding expectations.**
- **Public Access—**Wintering shorebirds are tolerant of trail use, but waterfowl do not like trail users. The public is happy with trails and recommended new signs, restrooms, and connections with trails. More studies on boating impacts are needed. Progress is **trending positive**.

Questions/Comments
Q: Which birds are sensitive to trail users?
A: Migratory ducks are very sensitive to trails. Some species are more tolerant than others. We looked at many trails, and the scientific literature also shows this. We need to plan trails in the right places.

Q: In regard to the tension between marsh species and pond species, is there a pie that you have to figure out how to divide or is there a way to make the pie bigger?
A: We want the habitat to support more birds in a smaller footprint—a denser pie.

Proposed Phase 2 Science

Lynne Trulio outlined the key elements of the proposed Phase 2 science approach:

- Integrated study approach to monitor multiple restoration targets
- Focus on sea level rise and climate change
- Invasive species management (especially gulls and corvids)
- Nesting bird research (avocets, stilts, terns, plovers)

John Bourgeois invited participants to follow up with Project managers and scientists for more detailed and technical information about the science. He commented that the Project is not holding a one day science symposium this year, but will hold a dedicated session at the State of the Estuary conference where Project scientists will present their work.

10. 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 flood protection levee north of San José and restoration of significant portions of habitat.

The Study was completed and adopted in 2016 and is now moving into construction, starting with Reach 1 at the US Fish and Wildlife Service Pond A12. The Shoreline Study partners are in conversation with the San Francisco Bay Area Regional Water Quality Control Board about permits. Construction will start next spring or early summer. Part of the construction effort will include stockpiling dirt at Pond A18 for future development of upland transition habitat. Once the levees are built, the ponds will be breached using adaptive management. The construction design includes trails on top of the levee to create a connection to the Bay Trail with Coyote Creek and the Alviso Marina. The Water Board would like to see the San José-Santa Clara Regional Wastewater Facility biosolids area cleaned up, and the Project is working with San José to address the issue. There has been nothing further from Congress on this Study.

Questions/Comments:
Q: Can you access EPA brownfield funding for biosolids?
A: I do not know if that is an option.

Q: Is there any way to change the levee design from a zigzag line to make it more smooth and natural?
A: Construction and design at this site is very complicated with the existing uses and historical contamination. It is not feasible or safe to fill in certain areas because of the soft bay mud. The zigzag area has been compacted for a long time, and makes more sense from a geological and technical stability standpoint.

Comment: It would be great to include a trail around the outside levee.
Response: We are not able to include that in the design at this time, since the breaches need to be large for full tidal circulation. Wildlife managers do not prefer ring trails that fully enclose a site.

Q: Are all the levees going to be approved by the Federal Emergency Management Agency (FEMA)?
A: Yes, the levees will be built by the US Army Corp of Engineers and Santa Clara Valley Water District will go through the FEMA approval process.
Q: Would it take an act of Congress to change this plan?
A: Yes.

Q: California State Parks is interested in building a park on the shoreline at a former waste/landfill site. How could State Parks become a stakeholder in this Project?
A: We always look at partners who have a nexus with our Project.

11. Looking to 2018
John Bourgeois said looking ahead, the Project will move forward into Phase 2, the Eden Landing Phase 2 draft Environmental Impact Report will be released, and the RFP for the San Francisco Bay Restoration Authority revenue measure will go out for solicitation. The Project will also have a new website soon. He invited participants to consider attending the public meeting that will be scheduled once the draft environmental report for Eden Landing is released, as well as other Project-related events.

Meeting participants were invited to contact Project managers with questions and concerns. John Bourgeois is available at John.Bourgeois@scc.ca.gov. Jared Underwood, Manager of the US Fish

and Wildlife Service San Francisco Bay National Wildlife Refuge Complex, is available at jared_underwood@fws.gov and John Krause, Manager of the California Department of Fish and Wildlife's Eden Landing Ecological Reserve, is available at John.Krause@wildlife.ca.gov.

Attachment 1: August 15, 2017 Meeting Attendance
Sign-in is optional

Full Name	Organization
Lynne Trulio	SBSPR Interim Lead Scientist
Ariel Ambruster	SBSPR Facilitation Team
Cheryl Strong	USFWS
Alex Cole-Weiss	SBSPR Facilitation Team
Donna Ball	Save The Bay
Chris Barr	USFWS
John Bourgeois	SBSPR Executive Project Manager
Jared Underwood	USFWS
Brenda Buxton	State Coastal Conservancy
Laura Cholodenko	State Coastal Conservancy
Ryan Clausnitzer	ACMAD
Gita Dev	Sierra Club
Ron Duke	H.T. Harvey & Associates
Dave Halsing	AECOM
Ahmad Haya	Redwood City
Beth Huning	SF Bay Joint Venture
John Krause	CDFW
Jane Lavelle	SFPUC
Eileen McLaughlin	Wildlife Stewards
Howard Shellhammer	San Jose State University, Dept. of Biological Sciences
Pat Showalter	City of Mountain View
Jacqueline Solomon	City of Mountain View
Renee Spenst	Ducks Unlimited
Charles Taylor	Alviso Water Collaborative
Karine Tokatlian	San Francisco Bay Bird Observatory
Melody Tovar	City of Sunnyvale
Ralph Johnson	
Joseph Huston	ACMAD
Errol Gabrielsen	SCVWD
Jessica Davenport	SCC
Renee Spenst	Ducks Unlimited
Mackenzee Mossing	SCVAS
Shani Kleinhaus	SCVAS
Gabrielle Feldman	Environmental Policy Solutions
Victoria Heyse	SFBBO
Ben Pearl	SFBBO

Lani Renshaw	SFBBO
Max Tarjan	SFBBO
Roxanne Grillo	City of San Jose
Tim Gasser	Interested citizen
Matt Powers	Gei Consultants
Ode Bernstein	PG&E
Marisa Villarreal	Resilient by Design
Zoe Siegel	Resilient by Design
Evelyn Cormier	CCCR & Ohlone Audobon
Babak Ebrahimi	Santa Clara Vector Control District
Jeff Miller	Alameda Creek Alliance
Ralph Boniello	Alameda Creek Alliance
Judy Nam	SCVWD
Matt Leddy	CCCR
Cynthia Denny	CNRCC Wetlands/OSA
Minane Jameson	HASPA + HARD
Marshall Dinowitz	Sequioa Audubon Society
Amy Foxgrover	USGS
Stacy Moskal	USGS
Dean Stanford	
Tim Caldwell	McBain Associates
Scott McBain	McBain Associates
Emma Stevens	SFBBO
Carole Foster	SCVWD
Bruce Wolfe	SF Bay Water Board
David Garges	ACA member
Carliane Johnson	SeaJay Environmental
Matt Gerhart	SCC
Peggy Olofson	Invasive Spartina Project
Earl Kaing	ACE
Michael Giari	Port of Redwood City
Karin North	City of Palo Alto
Kirk Lenington	Midpeninsula Regional Open Space District
Michele Barlow	PG&E
Lee Kuo	SF Bay Trail
Conrad Jones	CDFW
Luisa Valiella	US EPA