



Stakeholder Forum and Public Virtual Meeting

Tuesday, May 23, 2023
9:00-9:30 a.m. Informal Mixer
9:30 a.m.-12 p.m. Meeting
Summary

Background: The South Bay Salt Pond Restoration Project (Restoration Project) convened a virtual meeting of the Stakeholder Forum (Forum) and the public on Tuesday, May 23, 2023. The formal meeting ran from 9:30 a.m. to Noon; a half-hour informal mixer, including trivia questions, was held beforehand, and the meeting adjourned to an informal open house to allow opportunities for casual exchanges and to ensure sufficient time for dialogue. The Forum is convened to provide ongoing input to the Restoration Project's Project Management Team and its technical consultants on development and implementation of the Restoration Project plan for restoration, public access, and flood management.

Meeting Attendance: Attachment 1 lists meeting participants.

Meeting Materials: In advance of the meeting, Forum members were provided a meeting agenda. This agenda, as well as PowerPoint presentation slides and a meeting video recording are available on the Restoration Project website at www.southbayrestoration.org, specifically <https://www.southbayrestoration.org/event/stakeholder-forum-public-meeting>.

Substantive Meeting Outcomes:

1. Welcome, Agenda Review, and Introductions, Including New Project Managers

Dave Halsing, Restoration Project Executive Project Manager, welcomed Forum members and the public and reviewed the agenda. Facilitator Ariel Ambruster reviewed the meeting's approach to dialogue and how to participate. The agenda included the following items:

- Introductions, including New Project Team Members
- Overview/Orientation of Restoration Project
- Track Our Progress: Phase 2 at the Refuge (Alviso and Ravenswood pond complexes)
- Track Our Progress: Phase 2 at Eden Landing
- Collaborative Projects: South San Francisco Bay Shoreline Project, Creeks-Marsh Connection Project, Bayfront Canal & Atherton Channel Project & Other Collaborations
- Science Updates
- Funding Update – Good News!
- Optional open house discussion

2. Introduction of New Project Team Members

Two new members of the Project Management Team, both heading up management of their respective wildlife lands, introduced themselves:

- Ann Spainhower, Refuge Manager of the U.S. Fish & Wildlife Service's Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) involving the Alviso and Ravenswood ponds, said she is an aquatic biologist by training with a long history of working on conservation and recovery of threatened and endangered species who took the position nearly a year ago. She is super excited to be part of this team and project.
- Carly White, Reserve Manager of the California Department of Fish & Wildlife's Eden Landing Ecological Reserve (Eden Landing) near Hayward and Union City, has been with the department for seven years and has worked on drought terrestrial species monitoring work. In November, she became the Department's wildlife biologist for the East Bay and the land manager at Eden Landing.

3. Restoration Project Overview

Dave Haling shared an overview of the Restoration Project. This year marks its 20th anniversary, as its 15,100 South Bay acres were acquired from Cargill in 2003.

The Stakeholder Forum and its working groups were absolutely essential during the early days in developing the Restoration Project's long-term vision and its adaptive management and science-guided approach to its work. The intention is that those most directly affected by the work, and whose input was central, could engage in direct dialogue with Restoration Project managers and hear each other's issues.

The Restoration Project has three main goals:

- Habitat restoration, providing a number of different habitats, mostly marsh but also enhancing ponds for wildlife that use them.
- Maintaining flood protection, and where possible working with local flood control districts to improve risk protection.
- Providing wildlife-compatible public access and recreation to allow people to be close to the Bay and in nature for the benefit of healthy communities.

The Project works to maintain a very careful balance in the mix of habitats, aiming to restore at least 50%, and up to 90%, of the total project area to tidal marsh over fifty years. Managers take a phased approach to restoration: taking action, then assessing how everything is responding, and then making decisions on the next phase of actions based on that assessment. Phase 1 brought the Restoration Project to about 25%, with 3,000 acres restored to tidal marsh and 700 acres of enhanced ponds. In less than a decade, healthy mature marsh has established in a lot of places, and endangered wildlife is returning. Phase 1 work also added 7 miles of trails, a handful of new viewing platforms, and a kayak launch. The completion of the current Phase 2 construction underway now will bring the total restored tidal marsh to just shy of 50% of the Project area. However, planned restoration by partners and other agencies will bring the amount of tidal marsh to a little bit over 50%.

4. Tracking Our Progress: Phase 2 at the Refuge

Alviso: Island Ponds (ponds A19, A20, A21)

Rachel Tertes, wildlife biologist at the Don Edwards Refuge, discussed a project to breach levees at the Island Ponds, an area previously open to the Bay in 2006, to jumpstart the growth of marsh vegetation in Pond A19 and other portions less exposed to Bay tides and enhance fish habitat. In clearing vegetation for the construction, biologists found many nests of small mammals, so construction was adapted to cause less adverse impact to animals in those areas. The construction was completed in

early 2022. For more information on the mammal nests, see <https://www.southbayrestoration.org/science-symposium-2022> for a science presentation slides and video.

Alviso: Pond A8

Ann Spainhower described an ongoing Phase 2 project at the pond to build sloped land to serve as habitat transition zones or “ecotones,” connecting the water with upland areas, providing habitat for endangered species like the salt marsh harvest mouse and the Ridgeway’s rail. [Transition slopes can provide habitat for wildlife during storm surges and allow marshes and wildlife to migrate upward in the face of sea level rise.] The slopes can reduce coastal erosion, and their vegetation traps sediment and pollution. In 2010 Phase 1 work, the pond was revamped with tide gates to allow muted tidal influence from the Bay. For the current Phase 2 work, the Project has trucked in dirt to stockpile at the site and will construct the slopes this year.

Alviso: Mountain View Ponds (ponds A2W and A1)

Steve Carroll of Ducks Unlimited, which oversees Phase 2 construction for the Restoration Project, gave an update on work to restore tidal marsh, build islands and sloped habitat, and add trails at two ponds near the City of Mountain View. The 710 pond acres will be opened to the Bay via several levee breaches, and the Restoration Project has been coordinating with the City on improving flood protection in the area. New recreation will include a small spur trail to the Bay Trail near Charleston Slough, with a viewing platform, plus a 1.2-mile trail on the east side. Right now, we are trucking in free dirt, as available from construction in the region – we have 16% of the needed 360,000 cubic yards to create the sloping transition habitat and islands. The project is expected to be completed in two to three years.

Questions/Comments:

Q: How much flow do you expect from the breaches along Stevens Creek at the Mountain View Ponds? Our club currently kayaks in the area and we need to know if we will have to move elsewhere.

A: We will look up the velocities data and get back to you. It will likely be lower flow speeds, more like a delta area, because there will be numerous holes in the levee.

Q: What does the wording “No Charleston Slough” on the slide mean? You are not working on the Slough, or you are eliminating the Slough?

A: It means work in Charleston Slough is not included in Phase 2. We are keeping the barrier between our ponds and the Slough for a number of reasons, a main one being protecting steelhead in the area.

Q: Clarifying question: will the long trail near the Slough be retained?

A: You are likely thinking of the Palo Alto Flood Basin trail on the west side of the Slough – we are not touching that. Our trail on the east side of the Slough will be new, and very short, but we will build it higher in order to provide a viewpoint.

Q: Would it be possible to have a trail around the entire pond perimeter?

A: That’s actually not possible, because we are opening up the ponds to the Bay to restore them to tidal marsh. The goal is for the levees to break down over time, except for what is needed for the trail and for PG&E to access their towers in the ponds.

Q: I have read that the McAteer-Petris Act [the State law establishing the Bay Conservation and Development Commission (BCDC)] requires maximum feasible public access.

A: The definition of the word “feasible” has a lot of layers to it. BCDC has issued us the permits for this work under the McAteer-Petris Act. Retaining the levees would mean not achieving habitat restoration and flood protection goals [so would not be feasible under those goals or the missions of these agencies].

Q: E-bikes are getting more popular and are getting banned in more places. I have neuropathy, so hiking or using bikes is painful. For the elderly and disabled, they like not seeing bikes banned on the Bay Trail.

A: It’s a good point. There are certain Bay Trail design standards, but the rules can differ per landowner. The Bay Trail near here is within the City of Mountain View, in Mountain View Shoreline Park, and makes its own rules for that stretch. The trail we are adding on the east side of the pond will be in National Wildlife Refuge lands, and Refuge management will set policies for it.

Q: One of my ideas was to have the main trail on top of the levee and an E-bike trail on the side slope.

A: I would need to think about the design details of that, but that seems challenging.

A: When new public access comes on line, the Refuge holds a process to see what is compatible [with the Refuge mission and other elements]. The Refuge currently allows bikes up to a certain speed, and a certain type. We only have the option of having one trail, based on the limited space we are working with. But those are great things we can look at in the future when we get down to looking at the details of what is appropriate for this site. So that is a good idea and a good suggestion.

Q: What is your experience in working with the commercial dirt brokers – where does the testing occur, at their site, or at the restoration area, any issues with unsuitable soil not being usable?

A: A Water Board representative is here and can correct me, but the project proponents or the brokers are responsible for developing the sampling and testing plan, sending samples to a lab, then reporting to the regulators the results and the history of the source site. If it passes all of that, then they bring it to our site. If we have permits, they can place it at its end location, or they can place it at a stockpile spot, and there are protocols for that. It works very well in terms of costs, but on the downside is the risk, and the uncertainty when we will receive sufficient clean dirt from the dirt market to begin construction. There are wet season constraints as well.

Q: Is there a uniform standard?

A: The Refuge has a Quality Assurance Program Plan with protocols and screening limits. Or the developer could develop their own plan, which would need regulatory approval.

Comment: The City of Mountain View has a 15 mph speed limit on all of our trails. We didn’t specify the kind of vehicle you could use, given all the potential innovations that might occur.

Comment: Creek trails and the Bay Trail are used for commuting as well as recreation. I hope you'll work with cities and the Bicycle Coalition to announce trail closures and construction.

Response: That is an important point. We try to do that – we’ve posted on our website, the Refuge and the local city website; and we put up signs, have flaggers, and take actions like that to increase safety. We can also make a point to pass information to the Bay Trail, which maintains trail access information on their website.

Ravenswood: construction, community engagement, upcoming events

Chris Barr, Deputy Refuge Complex Manager, described the three types of restoration work under way:

- Work toward tidal restoration at 295-acre Pond R4, including construction of habitat slopes along Bedwell Bayfront Park and the All-American Canal levee.

- Pond R3, 270 acres, will be enhanced to control water to support nesting for threatened Western snowy plovers, which nest on dry pond bottoms.
- Ponds R5 and S5, which are being improved for ducks and other waterbirds.

Although the work is not yet complete, birds responded well to the improvements over this wet winter. For recreation, a new half-mile of trail will access a viewing area to see all three habitats. The trail is a spur of the Bay Trail and connects via the new Facebook-constructed pedestrian bridge across the highway to the Belle Haven community. The Restoration Project is working closely with the City of Menlo Park to align the look and feel of trails and their connectivity, with the goal of ensuring safer access to the trails and Bedwell Bayfront Park.

Next steps and upcoming events: Work to bring in remaining dirt will take place this year, with plans for a December event to breach Pond R4 to the Bay. The Refuge is engaging with the local community and the [Ramaytush] Ohlone Tribe to gather their thoughts on the public use area, with plans to complete trails and interpretive signs and open them in mid-2024.

Ravenswood: vegetation habitat restoration

Jessie Olson, Habitat Restoration Director of Save The Bay, shared information on the non-profit's work to plant vegetation on roughly 25 acres of the new habitat slopes. Save The Bay is primarily growing native plants at a nearby nursery site on West Bay Sanitary District land and has done a first year of planting, using a new more productive method adopted from farmers, using a tractor to disc in the ground sod with plant material. There are now opportunities for community volunteers to participate in the work, helping to remove invasive species and help plant. See Save The Bay's volunteer calendar at www.savesfbay.org/calendar.

Questions/Comments:

Q: Wondering if the Restoration Project is coordinating with the SAFER Bay project?

A: We meet quarterly with the main entity advancing that project, the San Francisquito Creek Joint Powers Authority. A lot of their levee plans do overlap with Restoration Project and Refuge areas. There are decisions to make about different levee alignments and different restoration or mitigation options. We appreciate how they are consulting with us early and often and keeping us informed, and we keep them informed on our restoration actions, trying to be a good neighbor to an adjacent project that will provide the community with additional flood protection.

Q: I commend all you are doing for habitat and public access, for the salt marsh harvest mouse explosion at the Island Ponds, and the longfin smelt. At Ravenswood, the snowy plovers are mainly at Pond R4, and you will be moving them to Pond R3. Can you speak to the success of plover nesting at R3?

A: Plovers have nested in all of the Ravenswood Ponds, with more in R4 and R3 as those ponds are larger and furthest from human disturbance. The new water control structure at R3 will allow us to drain the pond earlier in the spring, so it is ready for ground nesting earlier each year. We hope that enhancement will offset the loss of R4. We've not seen nesting at R4 this year, because it filled with rainwater, but we are getting a lot of nesting at Pond R3, so it appears that our initial hypotheses were not unfounded. Predator pressures will remain at R3 with all of the adjacent development, but those are also an issue at R4. They nest in good numbers and have variable results depending on predation.

Q: Will you be spreading oyster shells at the pond to help camouflage the nests, as you've done in Eden Landing?

A: That's something we will look at when the project comes online. Oyster shell supply is very limited right now, but we are looking at other options and ideas for camouflage.

Q: The main levee protection is happening on the west side of the Bay?

A: The South San Francisco Bay Shoreline Project for Bay flood risk protection levees is specific to Santa Clara County. The SAFER Bay Project's engineered flood levees are being planned for San Mateo County and they are pretty early in their planning and fundraising. We will continue to collaborate with them.

Q: The ecotone is supposed to help with sea level rise, but won't all of those plantings get inundated eventually?

A: It is going to get inundated. Those transition zones, the ability to trap more sediment and plant material allows the marshes to migrate upslope over time, to keep pace with sea level rise, if there is enough sediment supply. That's why we are taking such pains to include them in so many places, as part of long-term sea level rise adaptation. If there is not land upslope, or if sea level rise is too much or goes on for too long, they would eventually be overtopped, but they buy us many more decades to address it.

Q: Are we going to discuss the Bay Trail?

A: We are talking about the recreational trails at each location in our Restoration Project, but we don't have a systemwide trails topic. We don't lead the Bay Trail, except within our project area.

Q: I'm concerned about the Alviso area over there, they are trying to keep people from using the Bay Trail along the Bay, and also in the Fremont area.

A: We can't speak to the Fremont area as it's not part of our project.

Q: I'd like to find a way to have the Bay Trail actually on the Bay.

A: Well, there is a fundamental tension between access and habitat restoration and the sea level rise constraint. I understand that desire and it's something we try to find balance on every day.

5. Discussion coming out of break

- Possibility of meeting in-person next time.
- Request for virtual access to those meetings – hybrid design is a possibility.
- There have been some requests to schedule meetings in the evening.

6. Tracking Our Progress: Phase 2 at Eden Landing

Carly White, Reserve Manager, discussed restoration, recreation and flood risk management plans for the southern Eden Landing restoration, recreation, and managing flood risk:

- The 1,375-acre Bay Pond area will be restored to tidal marsh, providing habitat for salt marsh harvest mice, black rails, and Ridgeway's rails. This area will include transition habitat slopes for different plants and habitats, serving as high tide refugia for wildlife and erosion protection.
- The 445-acre Inland Pond area will remain as ponds, enhanced for migratory waterfowl and shorebirds, with some ponds managed to be dry in summer for nesting snowy plovers and least terns [acreages in this and above bullet updated from incorrect numbers on slides].
- The 450-acre Southern Ponds are mainly seasonal ponds that will be enhanced and eventually opened for muted tidal influence to include open water, marsh, and mudflats
- A 4-mile ADA-accessible segment of the Bay Trail will be built, with viewing areas, benches and interpretive signs, connecting the Bay Trail in north Eden Landing, to the south with the Alameda Creek Regional Trails, and to Union City at Veasy Street.
- For improving flood management, marsh is an excellent buffer for the residential areas for flooding. In addition, there will be stormwater management features for the Alameda County

Flood Control District to maintain overflow sills, increasing our capacity to manage water flow in the ponds to help mitigate flooding.

The work will take place in stages, with most work occurring in Stage A and more challenging construction along the Alameda Creek Flood Control Channel occurring in Stage B that may include a bridged and armored breach of the channel. Designs are at 60%, and all permit applications have been submitted. The goal is to begin construction in 2024. We have engaged the community and local tribes as much as possible, formally reaching out to the Confederated Villages of Lisjan Ohlone, and introducing our plans to the community at street fairs and via tours for community members and school groups interested in recreation.

Questions/Comments:

Comment: As a BCDC Commissioner, it makes me very happy to see all these additions to the Bay Trail!

Q: The Flood Control Channel this past winter had huge amounts of sediment coming down from the watershed, it is sitting in that flood control channel, which we would love to see used for the tidal marsh restoration. Is there any timeline for that Stage B work on the channel, or is it years in the future?

A: Changing a federal flood levee needs a Section 408 permit, a regulatory process that has to go through Congress and it is a much more time-consuming process. It is also more complicated in terms of the hydrodynamic modeling and the engineering design that has to be done. If we direct both the Flood Control Channel and Old Alameda Creek into the Bay Ponds, we essentially are connecting two watersheds that are currently separate, and that may produce some flow-through conditions that might delay fluvial outflows in one watershed or the other. So before we can move forward, we have to satisfy all those concerns on the Flood Control District's part and our part, too, as we have no interest in increasing flood risk. While Stage A is being built, we can work to settle those issues. I expect Stage B to lag only by a couple of years. We have recently agreed on grant funds to be directed to the Flood Control District to work with us on this, to cover the early stages of their design, modeling and geotechnical analysis. I'm cautiously optimistic that things may move forward, but I hesitate to put a specific date on it.

Comment: I was going to ask about funding next, so you answered that.

Q: I was going to ask about the money too, so it's comforting to know you'll be able to do the science on this. But if there's all that sediment there and the Army Corps is already involved in a sediment plan for the Whale's Tail area near there, considering how we've been hearing about the erosion of our outboard marshes on the east side of the Bay going on 20 years, it would be a shame to lose any of that sediment if we have marshes that are already eroding. If we could figure out how to move that around.

A: Once the connection to the channel is made, the flows will deliver a lot of that sediment into the interior. The Flood Control District periodically dredges its channels, and it has a parcel of land where it stockpiles the sediment until it is needed. They will put that sediment there, and test it, and screen it, and if it is clean enough to use for the restoration, we will use it. So, fingers crossed, it shouldn't go to waste. Regarding the Army Corps project, this is a pilot project to test if they place dredged sediments in the shallow water mudflat outside of the ponds, will the Bay flows carry it to the marshes or ponds? We have been collaborating with them, and they are very close to getting rolling. If that works, we are hoping it will be a longer-term solution.

Q: I think they have their funding, right?

A: Yes, the pilot project is funded.

Q: The map shows the Bay Trail just ends at the channel – will there be a bridge south across it, or where does the Bay Trail go from there?

A: It will connect with part of the Alameda Creek Regional Trail going east. We do not own the land on either side of the channel. We did some preliminary environmental analysis on bridging the channel, with the idea that we might spark enough interest that maybe the adjacent landowners or the Bay Trail itself might take the lead on it. We've met with the cities and the East Bay Regional Park District about this to see if there is interest in a collaborative project. No one has taken the bait so far – everybody wants it, but it's challenging to lead a project as big as that.

Q: Does anybody know about a Capital Corridor proposal to build a rail levee with a raised viaduct, and it started somewhere in this area and slashed across the Bay to Alviso? I proposed a trail on the levee.

A: I don't know about that; we haven't been a part of that.

7. Collaborative Projects

South San Francisco Bay Shoreline Project

Shalini Kannan, State Coastal Conservancy Project Manager, discussed the Shoreline Project, a collaborative project of the Conservancy, Valley Water, and the lead agency, the U.S. Army Corps of Engineers, along with landowners U.S. Fish and Wildlife Service, Santa Clara County Parks, and the City of San José. The project's goals include tidal flood protection, restoring and enhancing tidal marsh and other habitats, and providing recreation and public access. Construction is underway on the first phase to build a 4-mile FEMA-certifiable levee and habitat slopes to protect the historically excluded community of Alviso, which has subsided about 12 feet below sea level; Highway 237; and San José-Santa Clara water treatment facilities. Construction on the portion around Alviso is expected to be completed in summer 2025. The San Francisco Bay Bird Observatory will help grow and plant native vegetation on the levee and slopes. Funds are being sought and efficiencies identified to complete the levee along the water treatment area; there is a \$100 million shortfall in the total \$545 million project cost. Tidal restoration would occur at nearby ponds A9-A15 in the Refuge, and at San José's Pond A18. Feasibility studies are underway for the next phases of flood risk protection levees for Palo Alto, Mountain View, and Sunnyvale. The Corps will study various levee alignment options. Email shalini.kannan@scc.ca.gov for more information.

Calabazas/San Tomas Aquino Creek - Marsh Connection Project

Judy Nam, Senior Water Resources Specialist, Valley Water discussed this new project, a partnership with the Restoration Project, the U.S. Fish and Wildlife Service, the State Coastal Conservancy, and Caltrans to connect creeks west of Alviso with the Refuge's A8 ponds and restore and enhance tidal marsh, riparian, pond, and transitional habitats. The project will also reduce sediment in the creeks, sending it to ponds for habitat benefits and reducing maintenance costs. Valley Water's Pond A4 has recently been included, offering an opportunity for significant additional habitat restoration, with the marshes offering resilient flood protection keeping pace with sea level rise. The project has won \$8 million of Measure AA funds and support from local agencies, environmental groups, and Alviso community groups. A public meeting last week gathered feedback on conceptual alternatives; fall meetings will present trail options for public response; and in January 2024, the public will be able to weigh in on feasible alternatives. Under the schedule, planning and design would conclude in 2027 and move to construction.

San Francisquito Creek Joint Powers Authority: SAFER Bay

Dave Halsing said that the Restoration Project meets regularly with the Authority to coordinate and consider long-term planning issues as it begins to think through different flood protection alternatives.

Questions/Comments:

Q: Is there funding for Shoreline Project habitat restoration?

A: We don't have all of the funding – we have the majority and are working to reduce costs.

Q: Is there funding for ecotone for ponds A12-A13? Are particular parts funded?

A: The cost is not firm until we get contractor estimates. We have the vast majority of the needed federal funding, but significant local funding is also needed. The work was not projected to occur until 2034, although we are looking at doing it sooner.

Q: Why are the extent of A8 ecotone shown differently in today's map versus that shown at the Creeks Connection meeting?

A: I'm thankful you raised that – it should match in both graphics. The map extent of the western ecotone was originally drawn in the wrong place, so that it would cover an existing siphon, so we are sliding that one a bit more to the east, where it is shown in the newer Valley Water project maps.

Q: OK, and part of the levee had to be reinforced by the Refuge because of erosion? So this would help to prevent erosion?

A: Yes, the fill there remains in place and will continue to be there. We will create a more gradual slope to continue to prevent erosion toward that levee.

Q: I just heard that habitat restoration of ponds A9-15 is not planned until 2034? I hear this with great dismay. What needs to be done to expedite or accelerate that planning process? That's shocking, considering the progress we've seen with restoration of longfin smelt and many other species, just from the opening of the Island Ponds, to leave that huge amount of area just sitting there without any restoration for another decade.

A: I should have clarified that – the previous plan was to complete all of the flood risk management features and then restore ponds A12 and A18, followed by a five-year period of monitoring, then five years to breach ponds A9, A10, A11 and A14, then another five years for A13 and A15. We are looking at opportunities to potentially accelerate that, and restoration could occur potentially much sooner than that.

Comment: Local cities including Santa Clara and Sunnyvale have active bicycle and pedestrian advisory committees, as does Santa Clara County/VTA. We would welcome an informational item and opportunity to comment on creek trail impacts and opportunities.

Q: The Calabazas/San Tomas creek reconnect project is based on so much great science. Is there a link you can share for more info about the project?

A: <https://www.valleywater.org/project-updates/calabazas-san-tomas-aquino-creek-marsh-connection-project>

Dave Halsing noted that the completion of these two projects would push us over 50% tidal marsh and into the range of 60-65%, so the Restoration Project would be beyond the low end of its restoration staircase of percent marsh to percent ponds.

Successful Ravenswood-Area Flood Improvement Project: Bayfront Canal & Atherton Channel Project

Colin Martorana, Project Manager at the San Mateo County Flood and Sea Level Rise Resiliency District, also known as One Shoreline, discussed the successes of the District's first major construction project, a collaborative project involving the Refuge and the Restoration Project at Ravenswood Ponds.

NOAA now predicts that sea levels will rise 1 inch every 3.8 years. San Mateo County may be the most vulnerable in California because of its developments, infrastructure and roads along the shoreline. One Shoreline is a cross-jurisdictional effort to build solutions to those threats. Rainwater from Woodside, Atherton and parts of Menlo Park and Redwood City are drained via the Atherton Channel and the undersized Bayfront Canal near the Ravenswood Ponds, and there have been nearly annual floods, 40 events over 70 years, in the lower Redwood City and Menlo Park area. So construction completed in 2022 eliminated a bottleneck by creating a system to temporarily divert stormwater into Ravenswood ponds R5 and S5 and screen trash from flushing into the ponds and Bay. The win-win project provides fresh water to Ravenswood habitat and helped create habitat slopes. In its first year during this rainy winter, with such high flows, there was only one overtopping of Bayfront Canal, a massive success. Colin can be contacted at info@OneShoreline.org.

Dave Halsing said the Restoration Project, through such collaborations, can make meaningful improvements in people's lives.

8. Science Updates

Project Lead Scientist Donna Ball of the San Francisco Estuary Institute said in Phase 2, the Restoration Project is trying to expand on the results from Phase 1 science studies as it implements adaptive management, by producing the climate and science syntheses, and a science framework that has resulted in a science plan used internally for science implementation; by implementing new studies, collaborating on regional science, and sharing scientific outcomes via the website and the 2022 Science Symposium. She shared activities within the four priority topical areas

Threatened western snowy plovers

The Restoration Project is working to contribute to the recovery of plovers, which nest on dry pond bottoms, by managing predators and enhancing nesting habitat. It's important to think about regional habitat availability, as currently it falls solely on the Restoration Project to provide South Bay plover habitat. Plover numbers are good, but as ponds are converted to marsh, the Restoration Project will work to ensure there is additional habitat available.

Breeding waterbirds

The Project's goal is to maintain the numbers of migratory and nesting waterbirds, which use ponds within the project area. Multiple surveys are done and the Restoration Project has helped pay to install Motus towers, which electronically track banded birds. In 2022, we saw an all-time high in the number of Forster's tern nests at our ponds A16 and SF2 designed for nesting birds, but an 18-year low for avocet and black-necked stilt nests. We are thinking about how to ensure sufficient habitat and restrict predation. Phalaropes have declined over 20 years, with the deepest declines before the project began, so we are commissioning in-depth studies on factors behind the decline and what we can do to maintain populations.

Sediment

Sufficient sediment is important to build marshes without robbing dirt from other habitats. Brian Fulfrost has mapped the evolution of habitats, showing areas where restoring marsh is establishing, and some historic marshes on the East Bay, such as the Whale's Tail Marsh at Eden Landing, are eroding, and may do more work on specific areas within the Restoration Project. Karen Thorne at USGS is studying marsh accretion rates at certain locations.

Mercury and water quality

USGS has also completed a synthesis of Phase 1 mercury studies, available on our website. Regarding water quality, we monitor it, and are considering a study to look at water quality effects from ponds into sloughs.

Adaptive Management Plan

Last, the Restoration Project this year is refreshing the Adaptive Management Plan, looking at the restoration targets and triggers and considering, from a 20-year vantage point, whether we are still monitoring the right things, and if we have the right management actions identified and funded to achieve our objectives. As an example, we now know that we need to focus much more on limiting the impact of predators. Regarding the importance of finding the right balance of marshes and ponds and among the needs of various species, after completion of Phase 2, we will really take a hard look at what we need to do, particularly in regard to some of the waterbird species.

To learn more about the science program visit: <https://www.southbayrestoration.org/page/restoration-project-science-program>

[Added during Informal Open House] We have recently contracted with UC Davis to develop a synthesis of all the data and research on what is happening with fish in relation to the Restoration Project in particular.

Questions/Comments:

Q: Early on, it was identified that marsh restoration could have a significant impact on diving ducks. Snowy plovers don't really represent a lot of shorebirds and terns don't represent a lot of ducks. In your summary, I am not seeing those species or guilds reflected. I am a little concerned that they get lumped in, unless the science has come around and we are no longer concerned about them. I understand needing to monitor the species we are really concerned about now, but I'm thinking about the impacts of the restoration staircase in the longer term.

A: We are concerned about and are monitoring all of the species. Those don't rise to the top now as management priorities.

Q: How is the tidal marsh versus managed ponds question fitting into the process, or will that be waiting for the end of Phase 2?

A: More of the latter, really looking at it at the end of Phase 2. The priorities now are to do experiments that can improve specific numbers of priority species. Those we haven't talked about are doing pretty well and are on their way to reaching the targets we've set for them.

Q: If you are redoing the Adaptive Management Plan guidelines and goals, are we going to have a chance to get a look at it and provide comments before you finalize it?

A: Yes, very much so. We are first trying to assess what changes might be needed, and then we will go from there, but certainly there will be a public process on any changes we propose.

Q: What types of actions are being considered for predator management?

A: Some are exclusion fencing for terrestrial predators, others are more predation management, such as habitat enhancements to increase camouflage or provide chick shelters, or removing structures that could be perches for avian predators. There is some predator hazing that goes on in some places as well.

Comment: Increased Forster's Tern nesting might have been influenced by record numbers of Anchovies last year.

Response: We don't know, but that is entirely possible.

Comment: At the Santa Clara San Jose wastewater treatment plant, they are going to restore up to 800 acres of sludge drying ponds, so there's an opportunity to create whatever kinds of habitat we want with the treated water, it could be for freshwater birds. So maybe it could be some collaboration.

Response: Thank you for that.

Q: Is New Chicago Marsh part of the monitoring for stilt and avocet nests:

A: Yes.

Comment: Because when I go by there in June and July, there are a lot of them. And the other spot you probably don't monitor is the San Jose Santa Clara water treatment plant sludge lagoons are a hot spot for stilt and avocet nests. Maybe you could seek an invitation from the plant to see what is going on out there. On the fourth or fifth year of their sludge, it becomes very thick and it grows thick plants. Stilts and avocets are all over there building nests, which might strongly suggest that the direction you might want to go in restoration if you like stilts and avocets. If you don't, you might want to do something else with the property.

Response: Thanks for that, we'll discuss that.

Q: Are the predominant avian predators of American avocets and black-neck stilts California gulls?

A: Yes.

Q: Is the phalarope study public, and if so, can we get a link? I'm really interested in your conclusion and if we've looked at comparative rates of decline in other parts of the Pacific flyway.

A: The sparse number of surveys plus community data from eBird showed there was a major decline sometime between the 1980s and the 2000s when we started our monitoring, an order of decline from 40,000 to a few thousand at the start of the Restoration Project. The decline has continued – they are declining everywhere, due to a variety of factors. Saline lakes are drying up - the Great Salt Lake was in crisis before this wet winter. But the decline before the Project was much more severe in San Francisco than elsewhere. The next phase of analysis is trying to figure out why that might have happened.

Q: Are there banding studies so we can determine what percentage of birds are returning to the Bay Area?

A: No, we'd like to get some banded and Motus-tagged birds to detect flights between Mono Lake and the Bay Area. We don't have that information now.

Q: Is there a way to access the study?

A: We will post it to the San Francisco Bay Bird Observatory and the South Bay Salt Pond Restoration Project websites.

9. Funding Update

Laura Cholodenko, State Coastal Conservancy Project Manager, said completing the restoration is an expensive endeavor and it will likely take hundreds of millions of dollars to fully implement.

Fortunately, these days, there are unprecedented levels of funding available to support habitat restoration, including up to \$230 million for the Bay currently; \$25 million annually from Measure AA for the Bay for 20 years; and nearly \$700 million in federal funds available nationwide for habitat restoration and coastal resilience. Funding like this won't last forever, and there will be lean times, so we are working hard to get the last of our Phase 2 projects fully designed and permitted to begin

construction, and we are actively raising funds. We still need as much as \$6.6 million for the work at Mountain View that could cost up to \$18 million; and we have raised only about half of the money needed for the southern Eden Landing work that could cost up to \$35 million. We are happy we just got \$4 million from U.S. EPA for that. Science is harder to find funding for – of the \$3.244 million we raised, we've got \$869,000 remaining to pay for various studies and monitoring.

Questions/Comments:

Q: I wanted to thank the Coastal Conservancy for all you've done to direct funds to the Salt Pond Restoration Project – it is clear we could not have gotten to where we are without your support. There are tremendous pots of funding for restoration and there is as you've indicated some for doing science. My concern is, as we promote 30x30 at the state and federal level and we acquire additional lands, that we are going to need operations and maintenance (O&M) funds to make sure these lands can continue to be maintained. Is there any movement afoot to start to increase funding for that kind of need?

A: That is a really great point and something that we grapple with a lot. The Conservancy management visits Washington DC annually to push for more funding for O&M and other things. That is really important – we want this work to be sustainable in the long term. A lot of you do a lot of advocacy, and I think we need to keep beating that drum that that these landowning agencies really need better funding for O&M. I do not know of specific efforts. We are trying to figure out if O&M actions are management actions associated with restoration that can be leveraged into funding. Writing to your Congress people, voting for water bonds, etc., can increase the overall availability of funds for these things. A lot of the current funding is for restoration as part of sea level rise adaptation. Those projects are complex and cross more property boundaries and involve a broader set of constraints and objectives to meet than a pure restoration project on its own. The pathway is potentially fruitful but not without brambles.

Comment: I don't know if there are polluted areas that need clean up, but there is EPA brownfields funding. And for parks, there is the California Air Resources Board greening fund. There is a revolving fund for parks or environmental stuff around wastewater treatment plants.

Response: Thank you for that.

Q: Suggestions on how to advocate for funding? Thanks for all that has been done so far.

A: Advocacy with elected officials who are working on State budgets and for different agencies, that's always beneficial. And when we are talking about restoration projects with constituents and the press, we should highlight the need for long-term management of these lands as well. We need a lot of funding for restoration, but we also need funding for these agencies to continue to manage these properties – getting the word out there, however you can. Does anybody else have thoughts on that?

A: I would be remiss not to thank all the community organizations that go back to DC and talk about all the great restoration going on across the Bay. That community engagement and community voice has been really strong – thank you to all those who participated today, it's very much valued.

10. Wrap Up

Dave Halsing said the current goals in the next couple years are to complete Phase 2 at the Refuge, initiate construction at Eden Landing, implement priority science items, bring public review into the reevaluation of the Adaptive Management Plan, advancing collaborative projects, and extending regional scientific collaboration. There are opportunities to get involved by volunteering with Save The Bay and the San Francisco Bay Bird Observatory or by participating in Refuge outreach and education programs.

He thanked Forum membership for their continued interest and participation, and meeting attendees.

Questions/Comments:

Comment: SFBBO needs Phalarope monitoring volunteers starting next month! Email Nathan Van Schmidt at nvanschmidt@sfbbo.org if you're interested. The organization will train volunteers.

11. Open House

[Discussion items from the Open House have been moved under specific topics above if they apply to clearly to one topic.]

Questions/Comments:

Comment: Patty Oikawa from Cal State East Bay was doing carbon capture studies and looking at the rates of methane release at Eden Landing. Are you looking to partner to continue these kinds of studies? Because increasingly, I'm seeing a lot of money directed toward blue carbon, and that might be another source of funding for the Restoration Project.

Response: Good idea. There has been a lot of interest in blue carbon in particular. I have been part of some studies at the San Francisco Estuary Institute looking at the Delta, and some of those scientists are now turning their eye toward the Bay. We are looking at that, but we need to make sure it's applicable to what we are doing, as many of our restoring ponds don't yet have much marsh.

Response: SFBBO submitted a grant application to do some remote sensing blue carbon estimation for the Restoration Project with Iryna Dronova from UC Berkeley.

Comment: Fantastic.

Response: We try very hard to work with outside researchers to ensure they have the permits to do their research, without it affecting the habitat or wildlife.

Comment: The park project [part of the City of San José Plant Master Plan for water treatment facility lands], when it was first proposed in 2009, included building a trail around Pond A18. I don't think there is sufficient mitigation for the loss of that proposed 9-mile trail and the trails out of Alviso Marina County Park. Park users and Alviso residents are not happy about losing that planned trail, they say they aren't being listened to. I propose to add the trail around Pond A18 back into plans as further mitigation. The mitigation is building a bridge, the trail between the sewer plant and an active garbage dump, and then another paved bike trail along Highway 237. I don't think that equals nine miles of getting out into nature. I would like to see Pond 18 breached and bridged like that other project we talked about, maintaining an easement around the levee that State Parks can purchase or be maintained by Santa Clara San Jose. It's a very important part of the park they will build.

Response: We do not have plans in the Shoreline Project to restore the pond in a way that would allow for the bridges you are describing. That would be above and beyond the plan that was approved by Congress.

Comment: Every plan should have a way to modify it. Once the pond is sold, it's back to the stakeholders. I have been meeting with Rep. Ro Khanna's office, to see if we can get more funding.

Response: All projects balance different goals, and these compromises need to be made. Sea level rise is a humongous constraint, and it is going to make it more and more expensive to maintain pond levees along the Bayshore. It will be increasingly difficult to retain long-term trails along the edge of the Bay. The Restoration Project is trying to place our managed ponds set back, and have marsh on the outer edge, as those outer levees are hard to maintain.

Q: I did prior work on identifying cultural resources specifically at Eden Landing, and the interpretive site there today is excellent. Was there an update earlier in the meeting on the identification of cultural resources just to the south of Eden Landing, e.g. Union City, or elsewhere?

A: No, we didn't do any cultural resource surveys outside of Eden Landing. We did update the old ones inside of southern Eden Landing to add a few features that had not been previously identified, and to add some recordation and some public access. We will be providing that information at one of the viewpoints along the trail.

Attachment 1: November 3, 2021 Meeting Attendance

Attendance list is based on names as included in the Zoom meeting platform. The names of Stakeholder Forum members and alternates are bolded & italicized.

Full Name	Organization
<i>Stakeholder Forum Members and Alternates</i>	
Pat Showalter	City of Mountain View
Alison Hicks	City of Mountain View
Garnetta Annable	Santa Clara Valley Open Space Authority
Brian Weber	San Mateo County Mosquito and Vector Control District
Erika Castillo	Alameda County Mosquito Abatement District
Arthur Feinstein	Citizens Committee to Complete the Refuge
Carin High	Citizens Committee to Complete the Refuge
Ralph Johnson	Flood control expert
Jennifer Voccola Brown	City of San José
Eric Dunlavey	City of San José
Connie Lee	Cargill Salt
Lee Huo	San Francisco Bay Trail
David Lewis	Save The Bay
Jessie Olson	Save The Bay
Jane Lavelle	San Francisco Public Utilities Commission
Karine Tokatlian	Midpeninsula Regional Open Space District
<i>Members of the Public</i>	
James Ervin	
Martin Cooper	
Angie Nakano	San Mateo County Mosquito and Vector Control District
Casey Stevenson	San Mateo County Mosquito and Vector Control District
James Manidakos	Valley Water
Butch Paredes	Graniterock
Keren Bolter	Deltares
Melissa Denena	ESA
Laura Coatney	Swaim Biological Inc.
Jean (Lj) Palmer-Moloney	
Mattea Curtis	Midpeninsula Regional Open Space District
John Callaway	University of San Francisco
Andrew Raabe	U.S. Fish and Wildlife Service
Brian Wines	San Francisco Bay Regional Water Quality Control Board
Eric Larkin	Western Sea Kayakers
Alyssa Alfonso	Save The Bay
Dean Stanford	

Devang Shah	
Valary Bloom	U.S. Fish and Wildlife Service
Betsy Megas	
Eileen McLaughlin	Citizens Committee to Complete the Refuge
Agnes Farres	San Francisco Bay Regional Water Quality Control Board
Schuyler Olsson	Bay Conservation and Development Commission
Devan Reiff	East Bay Regional Park District
Gail Raabe	
Natasha Daniels	San Francisco Estuary Project
Linda Gass	
Jemma Williams	San Francisco Bay Joint Venture
Nathan Van Schmidt	San Francisco Bay Bird Observatory
Ariella Chelsky	San Francisco Estuary Institute
Julian Wood	Point Blue
Raymond Wong	City of Mountain View
Dana Michels	U.S. EPA
Alison Weber-Stover	National Oceanic and Atmospheric Administration
Mary Deschene	San Francisco Bay Wildlife Society
Kim Squires	U.S. Fish and Wildlife Service
Nick Yatsko	
Caitlin Crain	San Francisco Estuary Institute
Kristen Isom	U.S. EPA
Laura Garrison	Valley Water
Keiko Reaves	
Rick Johnson	
Moira McEnespy	State Coastal Conservancy
Richard Cimino	
Kelly Gram	
Libby Lucas	California Native Plant Society
Kitty Moore	
Brian Fulfroost	Brian Fulfroost & Associates
Mitsuko Grube	California Department of Fish and Wildlife
Ceal Craig, PhD F SWE	San Francisco Bay Wildlife Society
Maya McInerney	Bay Conservation and Development Commission
Cliff Bueno de Mesquita	
Roy Hays	South Bay Yacht Club
Ellen Johnck	
Julia Miller	
<i>Project Managers, Presenters, and Project Consultants</i>	

Dave Halsing	State Coastal Conservancy
Rachel Tertes	U.S. Fish and Wildlife Service
Ann Spainhower	U.S. Fish and Wildlife Service
Steve Carroll	Ducks Unlimited
Chris Barr	U.S. Fish and Wildlife Service
Jessie Olson	Save The Bay
Carly White	California Department of Fish and Wildlife
John Krause	California Department of Fish and Wildlife
Shalini Kannan	State Coastal Conservancy
Neil Hedgecock	U.S. Army Corps of Engineers
Judy Nam	Valley Water
Nick Mascarello	Valley Water
Colin Martorana	One Shoreline
Laura Cholodenko	State Coastal Conservancy
Donna Ball	San Francisco Estuary Institute
Ariel Ambruster	CSU Sacramento
Colin Dudley	Ducks Unlimited
Renee Spenst	Ducks Unlimited
Mason Hill	Ducks Unlimited