



South Bay Salt Pond Restoration Project

Restoring the Wild Heart of the South Bay

Stakeholder Forum Meeting

Wednesday, November 3, 2021

1:00-3:30 p.m.

Virtual Meeting

Background: The Stakeholder Forum (Forum) met virtually on Wednesday, November 3, 2021 from 1:00 to 3:30 p.m. 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 (Restoration Project) plan for restoration, flood management, and public access.

Meeting Attendance: Attachment 1 lists meeting participants.

Meeting Materials: In advance of the meeting, Forum members were provided a meeting agenda. This agenda, as well as PowerPoint presentation slides, which give more details on presentations, and the recording of the plenary portion of the meeting are available on the Restoration Project website at www.southbayrestoration.org.

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. He led a round of introductions of the Project Management Team, including new project managers, and Forum members. Facilitator Ariel Ambruster reviewed technical aspects of the virtual meeting. Dave Halsing provided background on the Stakeholder Forum process and reviewed the agenda, which included the following items:

- Restoration Overview
- Phase 2 Work at the Refuge
- Phase 2 Work at Eden Landing
- Science Update
- South Bay Shoreline Project & Other Collaborations
- Looking Ahead
- Topic Breakouts
- Optional open house discussion

2. Restoration Project Overview

Dave Halsing shared an overview of the Restoration Project. The Restoration Project covers 15,100 acres in the South Bay and has three main goals:

- Habitat restoration, including creating tidal marsh and reconfiguring managed ponds
- Maintaining or increasing existing flood protection

- Providing wildlife-compatible public access

The Project works to balance tradeoffs between and within the three goals. The Restoration Project aims 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 support adaptive management, so each phase is developed based on how the landscape responded to the previous phase. Phase 1 brought the Restoration Project to just under 30%, with 3,000 acres restored to tidal marsh and 700 acres of enhanced managed ponds. Phase 2 will bring the total restored tidal marsh to just shy of 50% of the Project area. The approach for Phase 3 will be based on Phase 2 science and outcomes.

3. Tracking Our Progress: Phase 2 at the Refuge

Matt Brown, Refuge Complex Manager overseeing the U.S. Fish and Wildlife Service (USFWS) Don Edwards San Francisco Bay National Wildlife Refuge (Refuge), gave an update on Phase 2 work at the four locations within the Refuge. At the Island Ponds this fall, Phase 2 will build on the successes of Phase 1, furthering the restoration of 330 acres of tidal marsh, with added connectivity, new breaches, and lowered levees. At the A8 ponds, we are building ecotones or habitat transition zones (also called horizontal levees), which allow wildlife to migrate with sea level rise, on the southern end of the pond. [That work will occur over the years as material becomes available.] The plans account for future creek connections and breaches to the pond group, which Valley Water will talk about later. The Mountain View ponds, Ponds A1 and A2W, will add 710 acres of tidal marsh, adding breaches, transitional habitat, and islands, as well as public access and flood management components. The Restoration Project is working closely with the City of Mountain View on the work, which has not yet begun. Though the project team considered connecting the ponds to Charleston Slough, the connection will not be made in Phase 2. At the Ravenswood ponds, Pond R4 will be restored to tidal marsh, Pond R3 will be maintained as habitat for threatened snowy plovers, and the R5-S5 ponds will be enhanced and managed for waterfowl. Phase 2 at Ravenswood also includes levee improvements, addition of two upland transition habitats, and a trail and viewing area. Much of the Phase 2 work at Ravenswood is already underway or complete.

Questions/Comments:

Q: Has there been any discussion of Pacific Gas & Electric (PG&E) rerouting transmission lines through sub-tidal cables? Would the Project have interest in this approach, which would reduce the footprint of PG&E's transmission lines across the Refuge?

A: Restoration Project and Refuge staff meet regularly with PG&E, but have not discussed this idea. It may be difficult to do under an aquatic wildlife refuge. We will continue partnering with PG&E on planning and maintenance across the Bay.

Comment: A PG&E staff person said that they were unaware of any decisions being made regarding this potential option.

Q: Does the Project have plans for Pond A12 near Alviso Marina County Park?

A: A12 is one of the ponds that has not been included in Phase 1 or 2 of the restoration. Through the South San Francisco Bay Shoreline Project (Shoreline Project), the U.S. Army Corps of Engineers (Army Corps) is building a flood control levee to protect the community of Alviso, near Pond A12. Pond A12 will eventually be breached and restored as part of the Shoreline Project, not as part of the Restoration Project. The dirt currently in the pond is for levee and ecotone construction. (Ecotone is a transitional habitat between the tidal marsh and the upland

areas, constructed out of imported material and onsite dirt. These areas are critical for providing refuge for marsh creatures during storms and high tides as well as providing an area for tidal marsh to migrate to with sea level rise.)

Question and Comment: How is the Restoration Project balancing potential wildlife impacts, particularly related to nesting, with the desire to increase public access and the public buy-in that can bring? How are potential disturbances to wildlife being addressed in planning for additional public access at Pond A2W? Consider adding signage so that users understand the habitat sensitivities. Consider developing bird-safe design guidelines for consistency across the cities located along the Bay.

Response: As one example, there are multiple aspects of the proposed public access at Pond A2W that will minimize impacts. The proposed addition is a [1.2-mile] trail on the edge of a pond that is over 400 acres, and the trail will reach the Bay but will not run along the northern edge of the pond. Nesting islands on the pond will be built further from the trail and the trail will allow for seasonal closures during the nesting season, with lockable gates. Refuge or other project partners will monitor the wildlife and adjust as needed during sensitive nesting seasons.

Q: At the mouth of Permanente Creek, there is a nice marsh tucked in, in an alcove at the landfill. Will that marsh be connected to Pond A2W at the Mountain View Ponds?

A: That connection is not currently planned for Phase 2. However, the design of the transition zone at A2W will allow those connections to those marsh areas, which are City of Mountain View property, to be made in the future [We will connect Permanente Creek to the pond in our Phase 2 work].

Q: As cities in the South Bay push to increase their tax base through commercial development, what challenges do restoration efforts face? How can the public support restoration?

A: The Restoration Project has very little influence over the kind of development cities pursue. The Project focuses on actively engaging with neighboring cities to identify mutually beneficial approaches. Citizens can participate in city-based planning processes and connect with advocacy organizations that work toward restoration goals. State and Federal conservation priorities, such as California's 30x30 plan and the federal America the Beautiful Initiative, may provide additional avenues for citizen advocacy, including around issues like sea level rise.

4. Tracking Our Progress: Phase 2 at Eden Landing

John Krause, Senior Wildlife Supervisor, California Department of Fish and Wildlife (CDFW) Eden Landing Ecological Reserve, gave an update on Phase 2 at Eden Landing. The Phase 2 Eden Landing project area includes the ponds between Old Alameda Creek and the Alameda Creek Flood Control Channel (Flood Control Channel). Key features of the work include:

- Restoring the Bay Ponds to tidal marsh, with a main breach on Old Alameda Creek, smaller water control structures, and a large transition zone along the Bayfront side, with a gravel beach and berm pilot project.
- The Inland Ponds will be retained in the near-term as managed ponds, with new and refurbished water control structures, including new direct intake. Phase 2 will also support more direct management of Pond E6C for snowy plover habitat in the long-term.
- In the Southern Ponds, the main connection will still be located at the Flood Control Channel, with improved ability to actively drain and fill the pond system.

- Phase 2 will improve flood risk management, with added stormwater management capacity for the Alameda County Flood Control District.
- Phase 2 retains all existing public access and adds some new elements, such as adding a four-mile stretch of the San Francisco Bay Trail, a community connection trail to Union City, a bridge over a stormwater channel, and signs and viewing platforms.

Phase 2 at Eden Landing is split into two stages. Anything directly connected to the Flood Control Channel requires additional approvals from the Army Corps and the Alameda County Flood Control District, including a Section 408 process. Therefore, Stage A will include the project elements not directly connected to the Flood Control Channel, and Stage B will include those elements connected to it. Stage A design and permitting is underway, with construction to begin in 2022.

Questions/Comments

Q: What actions will be undertaken to protect snowy plovers from terrestrial-based predators and domestic pets using the Bay Trail as a transit corridor?

A: The ongoing predator management program will be continued. Domestic pets are not allowed at Eden Landing.

Q: When will the breaching of the Bay Ponds occur?

A: The project team anticipates at least 2 years of construction, so the breach will likely occur in 2024 or 2025, at the earliest.

5. Science update

Donna Ball of the San Francisco Estuary Institute, Lead Scientist for the Restoration Project, shared the Project's vision for Phase 2 science, including how it builds on Phase 1 science, the documents prepared thus far to guide it, and efforts to collaborate with other agencies on it. At the end of Phase 1, the Restoration Project evaluated how restoration actions had informed scientific questions and uncertainties from the beginning of the project. The Restoration Project hired Point Blue Conservation Science to undertake a science synthesis and climate synthesis to help guide Phase 2, building on the Phase 1 evaluation and adding a focus on climate adaptation and resilience. The Phase 2 science program, including specific priorities, planning, and funding, is still under development. However, the Science Synthesis identified four key uncertainties to prioritize for case studies: mercury and water quality, snowy plovers, breeding water birds, and sediment. In Spring 2022, the Restoration Project plans to hold a Science Symposium, which will provide an opportunity to dig deeper into the Phase 2 science program.

Forum and public questions and comments were held for the breakout sessions.

6. Shoreline Update & Other Collaborations

South San Francisco Bay Shoreline Project

Shalini Kannan, California State Coastal Conservancy, gave an update on the Shoreline Project, which will soon start constructing Bay levees to protect the Alviso area. The Shoreline Project is a collaboration between the Coastal Conservancy, the Santa Clara Valley Water District (Valley Water), the Army Corps, and the U.S. Fish and Wildlife Service (USFWS), aiming to support restoration of the Alviso salt ponds while protecting the community of Alviso from coastal flooding. Alviso is vulnerable to flooding due to subsidence from historic groundwater pumping

and sea level rise. The Shoreline Project will construct approximately four miles of levees, which will tie into existing flood protection projects on the Guadalupe River and Coyote Creek. The Shoreline Project also includes wildlife and habitat benefits, such as construction of a sloped transition habitat and moving the loop trail further from habitat areas; and public access benefits, such as connecting to the Bay Trail and adding a pedestrian and bicycle bridge over the railroad. Overall, the project will lead to tidal restoration of over 2,800 acres of ponds. Unanticipated project costs delayed construction. The Shoreline Project has funding for the first phase of construction; project partners are considering ways to reduce costs or garner additional funding for later phases.

Calabazas/San Tomas Aquino Creek-Marsh Connection Project

Judy Nam, Valley Water, gave an update on the effort to connect the Calabazas and San Tomas Aquino creeks to Alviso Ponds A8, A8S, A5, and A7. Wetland losses and development in the area disrupted the historical connection between the creeks and wetlands. The current rerouted artificial creek channels lead to buildup of sediments that must be removed. A visioning workshop and subsequent feasibility study produced a plan to redesign the creeks and connect them with the Restoration Project at the A8 Ponds so that creek sediments are delivered naturally to build tidal marsh there. Pond levees would also be breached to further open the pond to slough and Bay waters. This approach would provide flood protection as well as the ecological benefits of accelerating tidal marsh establishment. The project has received Measure AA funding from the San Francisco Bay Restoration Authority and Proposition 1 funding through CDFW. The next phases are planning and design, and project partners anticipate project completion by 2028.

Other Outside Collaborations

Dave Halsing shared additional Restoration Project collaborations:

- Ravenswood-Area Flood Risk Management
 - San Mateo County & Area Cities: Bayfront Canal & Atherton Channel
 - San Francisquito Creek Joint Powers Authority (SAFER Bay)
- Sea Level Rise Adaptation
 - Sunnyvale
 - Mountain View
 - Coastal Hazard Adaptation Resiliency Group
- Restoration
 - Alameda Creek

Forum and public questions and comments were held for the breakout sessions.

7. Looking ahead

Dave Halsing summarized key upcoming Restoration Project priorities:

- Implement priority Science Program items
- Extend partnerships for regional monitoring
- Continue/complete Phase 2 construction at Refuge ponds
- Initiate construction at Eden Landing
- Advocate for policy modifications
- Advance partner projects

8. Breakout discussions

Participants were invited to participate in informal dialogue continuing the discussions on Eden Landing, Refuge Alviso Ponds, Refuge Ravenswood Ponds, and Science and Monitoring. Attendees were able to participate in the topics of their choice, including participating in multiple breakout discussions by joining and leaving as desired. Notes from those discussions are included in Attachment 2.

9. Optional Open House Discussion

Following the formal conclusion of the meeting, participants had the opportunity to engage in further discussion in an informal open house format.

Questions/Comments:

Q: Would the Restoration Project consider using sand on some pond islands to provide skimmer habitat?

A: Yes. Any information on how to do so is welcome. Skimmers have used a number of the Refuge ponds this year, but none have been seen at Eden Landing. The islands in Eden Landing ponds will have a variety of toppings such as sand, gravel, and shells, to provide suitable habitat for multiple species.

Comment: Phil Higgins and Ryan Philips have worked on design for skimmer nesting boxes.

Comment: It is important to provide consistent, concise messaging to Refuge visitors. The San Francisco Bay Wildlife Society and Friends of the Refuge are interested in coordinating on public messaging.

Response: The Refuge is interested in partnership on messaging. There are many communities the Refuge would like to engage with.

Comment: A participant connecting from Taiwan had encountered challenges accessing the project website.

Response: The website had security protections in place preventing viewing by users in some countries. The settings were updated to allow access by Taiwanese users.

Comment: With sea level rise, there are multiple sites around the Bay that are under a significant threat. In one such location, construction is planned on an old landfill near the Belmont Slough, five miles from Ravenswood. The commenter invited agencies or individuals interested in supporting research related to the external costs of future cleanup from the project to contact her.

Meeting participants were invited to contact Project managers with questions and concerns.

Emails for managers are:

- Dave Haling, Executive Project Manager, dave.haling@scc.ca.gov
- Matt Brown, Don Edwards Refuge, matthew_brown@fws.gov
- John Krause, Eden Landing Ecological Reserve, John.Krause@wildlife.ca.gov
- Laura Cholodenko, California State Coastal Conservancy, Laura.Cholodenko@scc.ca.gov
- Donna Ball, Lead Scientist, donnab@sfei.org.

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
Dave Halsing	SCC
Laura Cholodenko	SCC
Brenda Buxton	SCC
Evyan Sloane	SCC
Shalini Kannan	SCC
Donna Ball	SFEI
John Krause	CDFW
Matt Brown	USFWS
Rachel Tertes	USFWS
Chris Barr	USFWS
Judy Nam	Valley Water
Nick Mascarello	Valley Water
Sarah Gidre	Valley Water
Jaeho Hahn	Valley Water
Tony Mercado	Valley Water
Renee Spent	Ducks Unlimited
Natalie Washburn	Ducks Unlimited
Colin Dudley	Ducks Unlimited
Steve Carroll	Ducks Unlimited
Neil Hedgecock	Army Corps of Engineers
<i>Anne Morkill</i>	Laguna de Santa Rosa Foundation
<i>Arthur Feinstein</i>	Citizens Committee to Complete the Refuge
<i>Brian Weber</i>	San Mateo County Mosquito and Vector Control District
<i>Carin High</i>	Citizens Committee to Complete the Refuge
<i>Charles Taylor</i>	Alviso Water Collaborative
<i>Connie Lee</i>	Cargill Salt, Inc.
<i>David Lewis</i>	Save The Bay
<i>Erika Castillo</i>	Alameda County Mosquito Abatement District
<i>Gita Dev</i>	Sierra Club, Loma Prieta Chapter
<i>Jaclyn Satira</i>	NASA Ames Research Center
<i>Jane Lavelle</i>	San Francisco Public Utilities Commission
<i>Jennifer Voccola-Brown</i>	City of San Jose
<i>Karine Tokatlian</i>	Midpeninsula Regional Open Space District
<i>Kristine Zortman</i>	Port of Redwood City
<i>Lee Huo</i>	San Francisco Bay Trail

Marilou Ayupan	City of Union City
Matthew Dodder	Santa Clara Valley Audubon Society
Melody Tovar	City of Sunnyvale
Pat Showalter	City of Mountain View
Ralph Johnson	Flood control expert
Richard Santos	Valley Water
Roman Berenshteyn	Bay Planning Coalition
Shani Kleinhaus	Santa Clara Valley Audubon Society
Tim Armstrong	PG&E
Ariel Ambruster	SBSPR Facilitation Team, Sacramento State University
Julia Van Horn	SBSPR Facilitation Team, Sacramento State University
Adelaide Nye	
Alan Kaiser	
Andrew Otsuka	
Armando Lopez	Union Sanitary District
Brian Fulfrost	Brian Fulfrost and Associates
Catherine Brett	Olofson Environmental, Inc.
Chris MacIntosh	
Cliff Bueno de Mesquita	
Colin Martorana	One Shoreline
Cory Overton	USGS
Davena Gentry	
Diane Howard	Mayor, Redwood City
Eileen McLaughlin	Citizens Committee to Complete the Refuge
Elizabeth Nielsen	
Ellen Johnck	Consultant
Ellen Plane	SFEI
Eric Dunlavey	City of San Jose
Eric Mruz	U.S. Fish and Wildlife Service
Erik Pearson	City of Hayward
Fariborz Heydari	City of Menlo Park
Florence LaRiviere	Citizens Committee to Complete the Refuge
Gail Raabe	Citizens Committee to Complete the Refuge
Greg Unangst	Friends of Stevens Creek Trail
Herb Masters	
Jackie Zipkin	East Bay Dischargers Authority
James McGrath	Board Member, Regional Board
Jana Sokale	
Jane Mark	Midpeninsula Regional Open Space
Jason Yeates	

Jeff Miller	Alameda Creek Alliance
Jennifer Hetterly	Sierra Club Loma Prieta Chapter
Jeremy Lowe	SFEI
Jessica Davenport	State Coastal Conservancy
Jessie Olson	Save The Bay
Jill Smith	Alviso Neighborhood Group
Jim Ervin	Retired, City of San Jose
John Holder	East Bay Regional Parks District
Josh Purtle	
Julia Miller	
Justin Semion	WRA
Karen Taylor	
Karen Thorne	USGS
Keiko Reaves	
Kevin Murray	San Francisquito Creek Joint Powers Authority
Kit Soo	Alameda County Water District
Laura Garrison	Valley Water
Laura Hollander	State Coastal Conservancy
Lenny Siegel	Silicon Valley Bicycle Coalition
Libby Lucas	CNPS
Linn Johnson	
Lisa Au	City of Mountain View
Lisa Hunt	SFEI
Luke Bailey	
Maggie Cornejo	
Margaret Bruce	San Francisquito Creek Joint Powers Authority
Marilyn Latta	State Coastal Conservancy
Marshall Dinowitz	Sequoia Audubon Society
Mary Cousins	Bay Area Clean Water Agencies
Mary Deschene	San Francisco Bay Wildlife Society; Friends of the Refuge
Maya Hayden	Point Blue Conservation Science
Moira McEnespy	State Coastal Conservancy
Nicole Nagaya	
Paul Hodges	
Raymond Wong	City of Mountain View
Robert Schlipf	Regional Board
Ron Duke	HT Harvey and Associates
Ross Heitkamp	Friends of Stevens Creek Trail
Sandra Scoggin	San Francisco Bay Joint Venture
Sharon Nelson	

Stacy Moskal	USGS
Susan De La Cruz	USGS
Susan DesJardin	Sierra Club Loma Prieta Chapter
Susannah Tringe	
Terry Riener	
Yungnane Yang	

Attachment 2: Breakout Discussion Notes

Eden Landing

Hosted by: John Krause, Dave Halsing, Renee Spenst

- There is a concern about trail surfacing for bike riders.
 - John verified that surfacing would be gravel.
- A nearby resident raised a concern about dry ponds blowing dust toward Veasy Street and the neighborhood behind it.
 - John and Dave verified that the scope of Phase 2 actions including work on southern Eden Landing that could include some association with plover pond management and dust, but that so far dirt import has been to maintain levees. Also some of the dust may be from the intentionally dry ponds in northern Eden Landing or from the Flood Control District's own import to their dredge material disposal area. This also could be exacerbated by drought.
- HASPA has reached out to partners to be on its board and asked whether the Restoration Project had been approached.
 - Dave said while these are collaborations he'd like to develop, it would not be feasible to become a board member. EBDA was also invited but is in a similar boat. The EBDA manager asked if there is a way to be an adjunct member in the loop and participating/advising as possible but not being a full-fledged member.
- Regarding ecotone slopes [on outboard side of mid-complex levee and on the Bayfront inboard side], if you are keeping E5 and E6 as ponds and not planning to build ecotone in Stage A, is there interest in corollary freshwater sources to the transition zones?
 - That ecotone and related use of the treated freshwater from the adjacent Union Sanitary District was explored in the EIR but not carried forward. It is not impossible to consider running a pipe to Pond 4C or the mid-complex levee.
- Fill comes from upland excavation projects, is free and its delivery is free. The issue is its timeline is uncertain.
- Can you take material from the Flood Control Channel? They have a dredge stockpile area north of Union Sanitary District. They have said take it if you want it.
 - We have received material from the Flood Control District in the past.
- Comparing needs at Alviso for fill versus free fill, is that to do with specs for the USACE levee for the Shoreline Project? You have benches and a gravel beach berm, and an inward facing transition slope.
 - The east side of the Bay gets a lot more wind wave energy, so we are going to reinforce the western levee. If the levee is overtopped, the transition slope will slow erosion, and also provide habitat functions. There is the landmass idea – we may even scale up the gravel beach and berm toward that concept.
 - And also, the 'free dirt model' doesn't reliably work for true engineered levees like the one adjacent to Alviso for the Shoreline Project. That has very high geotechnical specifications that are harder to meet.
- We are concerned with the placement of the ecotone levee and no access for the mosquito abatement district. Will you be planting or seeding it?
 - There will be about a ten-year period before Stage B moves forward where there will still be access from the south. After that, the reduction in ponds as the area is made fully tidal should greatly reduce the need for access for mosquito abatement.

- The C ponds would be slightly muted, and we are not contemplating changes to access them.
- We would like more information on sequencing and traffic around the Union Sanitary District.
 - Contact Dave or John.

Refuge Alviso Ponds

Hosted by Rachel Tertes, Steve Carroll, Judy Nam

- There is a lot of information about the Restoration Project. The San Francisco Bay Wildlife Society, the Refuge's friends group, would like to help the Refuge with coordinated public messaging, with the Refuge's education specialist position not being filled.
 - Rachel Tertes said she would be the best primary contact for the group.
 - Valley Water is working on education material on the Shoreline Project and will work with Rachel to distribute.
- Is documentation available for the cost challenges and cost reduction efforts on the Shoreline Project?
 - Shalini Kannan will follow up.
- What factors are driving up Shoreline Project cost?
 - Fill that meets geotechnical and environmental specs is hard to come by. We are looking for sediment sources, and it is expensive to obtain material.
- Is shortening of the horizontal levees (ecotone or sloping transition habitat) being considered as a cost reduction strategy?
 - We are looking at different options, including a shorter-height ecotone that doesn't reach the top of the levee. The basis of design indicated that that is an acceptable alternative. We would use as much on-site sediment as possible. We may import topsoil over time for the top to build post-restoration. A consultant is looking at the ecological impacts of that change.
- If ecotones are shorter, how will that impact use by endangered species? Are trails going to be moved to minimize wildlife disturbance? Protection of wildlife was a key reason many people favored the horizontal levee (also known as ecotone or habitat transition zone).
 - Ecotones will be along the length of the levee, just not to the same height [Note that this would actually increase the protection to marsh species by creating an elevation difference between the trail and the top of the ecotone]. It will create habitat along the ecotone, but we need natural creation of tidal marsh adjacent to the ecotone for suitable habitat. We can add more fill on top at a later date if it becomes available.
 - Ecotones won't go all the way to the top of the levee. The idea is that tidal marsh species won't occupy them until tidal marsh creates itself post-construction. Soil can be added in later.
- A resident of Alviso said he is happy the project is moving forward. He is interested in an event occurring Friday.
 - The Friday meeting is an internal meeting with the construction contractor. Valley Water will be reaching out to the public to provide an update soon.
- It seems like there is not enough coordination being done to get the fill where it needs to be and construct the ecotones as designed, for example from the Port of Redwood

City. What can we do to start coordinating? Are there environmental or legal issues the public can help change?

- Stream maintenance desilting is currently being used for the A8 ecotones. USFWS is trying to collaborate and have a great partnership with Valley Water for the project, and is always working to improve the process of importing fill. There are always constraints on fill sources.
- Port of Redwood City fill does not meet the geotechnical requirements for the levee. It wouldn't be cost effective to use at this project.
- Sediment reuse is a hot topic. There are critical needs for sea level rise adaptation. Only one-fifth of Valley Water's sediment meets the screening criteria for the Refuge's needs. Valley Water is working with the Regional Water Quality Control Board to provide flexibility for other opportunities to increase sediment reuse.
- Marsh restoration is the best protection against sea level rise. It doesn't care about bureaucratic problems. BCDC sediment regulations are being updated to be more supportive of sediment use. USACE has had a restrictive process (old fashioned cost-benefit) that limits sediment reuse. The agencies are working on updating the process. There are lots of opportunity for others to weigh in on reuse opportunities. Currently much sediment is barged to the ocean where there is no environmental benefit.

Refuge Ravenswood Ponds

Hosted by Chris Barr, Colin Dudley, Brenda Buxton

- A Refuge manager discussed the relationship and collaboration between Bedwell Bayfront Park and SBSPRP and the Bayfront Canal and Atherton Channel Project (at Flood Slough). USFWS has had staffing shortages but working on developing more of a presence in Ravenswood.
- Appreciation of the information distinguishing the habitat in the ponds.
- Managers appreciated the input on managing public access from community.
- What are flood mitigations associated with work in ponds R3 and R4?
 - Levee maintenance work in R1 and R2
 - All American Canal berm as a step to maintain existing level of flood protection
- How many feet of sea level rise can we accommodate before we have flooding problems?
 - It's difficult to tell without detailed modeling. There are issues now in the area but it is site specific.
- Where are fill locations and do they overlap with the SAFER future levee? Issue of the material used for berms and concerns about having to move it.
 - Consultants shared a figure showing the All American Canal berm and ecotones and discussed the features to provide flood protection and the schedule. (Tidal work is planned for Pond R4 next year, with the breach of the pond in late 2022.)
 - Managers suggested that SBSPRP meet with SAFER and have a more detailed conversation over the details.
- Question about shortage of fill.
 - Managers discussed QAPP standards and stated a desire to use many types of fill, but we sometimes have to pass on some material. Discussed the

expense of purchasing dirt and how it has made the grant schedule challenging.

- Issue: Status of snowy plover habitat
 - There are ways to enhance habitat with shells, predator management, and better water quality. Water control structures in R3 are features to improve water quality in that pond.

Science and Monitoring

Hosted by Donna Ball, Laura Cholodenko, Ariel Ambruster

- Concern about other impacts to water birds as the Project has less space for ponds. Placing a whole bunch of islands was shown not to be effective. Could there be interspecies competition for nesting space? I saw a killdeer destroy another bird's egg.
 - Yes – the big concern is avocets, terns, and stilts. USGS will monitor nests of those species in 2022. USGS reported a decline in the number of breeding pairs over time in the project area. Western snowy plovers are another high priority for us. Plover conservation is a regional issue and staff at SFBBO are trying to see how other landowners in the region can be involved.
- I understood that dabbling ducks would do well, but diving ducks were a particular concern. I haven't seen that mentioned. Are you looking at that?
 - SFBBO is – diving and dabbling ducks are doing fairly OK. We are still trying to determine, for all guilds, what the effects are of the Restoration Project versus external sources. Ducks may benefit because some of the restored ponds are open water now. Once they vegetate over time, there [may] be less duck habitat. In Phase 2, there will be a lot of pond habitat restored to salt marsh. The phase will include monitoring of the populations. We will look at the data and monitoring to decide whether to restore or maintain some of the Eden Landing ponds.
 - Most of the restoring ponds are diving duck ponds, so we may see a decline.
- Regarding water quality monitoring, what can you monitor?
 - Algae and dissolved oxygen. [Salinity is also monitored, as was noted in a question below.]
- How concerned are you?
 - The ongoing monitoring is dissolved oxygen and temperature. We don't think we are seeing big concerns, but will in the future. We now can manage ponds to keep that in check.
- Do you measure salinity for water quality?
 - Yes.
- Is there monitoring of carbon sequestration, carbon, greenhouse gas fluxes?
 - Not at a large scale. There is a small greenhouse gas flux study at Eden Landing.
- Regarding the monitoring of phalarophes, do eBird and iNaturalist reduce the need for personnel to monitor?
 - No. SFBBO has been using eBird. But there are never enough people. Yes, it was helpful data. SFBBO looked at the eBird data to identify new monitoring sites.
- Will you monitor wetland accretion this time?
 - [The Restoration Project is collaborating on a suspended sediment study in the lower South Bay that will support greater understanding of wetland accretion.

The Project also has funding to monitor accretion at some of the Phase 2 construction sites, once they are breached.] We may be seeing less accretion. There is a lot of sediment out there – the uncertainty is where it goes.

- What kind of fish monitoring are you doing, especially relative to birds?
Jim Ervin, recently retired from serving as compliance manager with the San Jose-Santa Clara Regional Wastewater Facility, participates in and reports on UC Davis fish trawling in the South Bay. He gave an impromptu presentation:
 - The UC Davis group does a lot of fish monitoring in and around the Alviso pond complex – with 20 stations, monthly. They did a lot of enhanced monitoring in the last 2 months in Guadalupe Slough with SFEI. Threatened longfin smelt just came into the Bay two weeks ago.
 - He shared a 1929 aerial photo of the Coyote Creek delta – only one of the ponds was levee'd off until 1939. The area saw an enormous amount of sediment in the last century – the sea level rose 8 inches, land subsided 6 feet, by extension, the historic trend is sedimenting very fast. USGS folks need to consider all the diatoms – he didn't think it gets fully accounted for in sediment rates. Year-by-year we see an incredible rate of sedimentation. This year there was a great dieback in marsh plants. Now they are roaring back - spartina and pickleweed.
 - Anchovy spawn in the same places as longfin
 - There are lots of herring (they are one of the top 3 native species).
 - Non-native fishes are a big issue: American shad.
 - Native shrimp, crangon, feeds birds and fish throughout the system; shrimp spawn should be seen as absolutely critical. Non-native shrimp are palaemon. Crangon have crashed this year.
- How to collaborate with the RMP and nutrient science and how it relates to the nutrient metrics to see how critters are responding to low dissolved oxygen, etc.?
 - Nothing is yet set up, but we are talking with Dave Senn at SFEI about how to answer those questions. The Water Board also interested and talking with the nutrient strategy group.