



Community Workshop #2: Sea Level Rise & Climate Change

November 30, 2020

Workshop Summary Notes



Sunnyvale

Workshop Summary

I. Introduction

The City of Sunnyvale hosted its second community workshop for the Moffett Park Specific Plan Update on Monday, November 30, 2020 from 4:00pm – 7:00pm. The focus of this workshop was an analysis of the impacts and influence of sea level rise and climate change on the Plan area and broader Sunnyvale community.

Public engagement for the Moffett Park Specific Plan Update transitioned to primarily digital platforms beginning in March 2020. In adherence with local public health mandates, this workshop was held virtually with participants attending the Zoom meeting via computer or phone, or accessing a live broadcast made available through the City of Sunnyvale City Clerk YouTube channel. A recording of the entire workshop was also made publicly available the next day on the City's YouTube channel and the project website.

To learn more about the project's public outreach efforts, please refer to the *Community Engagement Plan* (2021), or visit moffettparksp.com. A copy of the presentation slides shown during this workshop are also available on the website.

II. Attendees

City Council

Larry Klein (Mayor), Russ Melton, Glenn Hendricks, Michael Goldman, Nancy Smith, Gustav Larsson, Mason Fong

City Staff

Office of City Manager: Kent Steffens (City Manager), Teri Silva, Connie Verceles,

Office of City Attorney: Rebecca Moon, John Nagel

Community Development: Trudi Ryan (Director), Andrew Miner, Michelle King, Kelly Cha,

Environmental Services: Ramana Chinnakotla (Director), Melody Tovar, Nupur Hiremath, Mansour Nasser

Public Safety: Vincent Anderson

Public Works: Chip Taylor (Director)

Consultant Team + Partner Agencies

Environmental Science Associates (ESA), Raimi + Associates (R+A)

San Francisco Estuary Institute (SFEI)

Santa Clara Valley Water (Valley Water)

Members of the Public

About 90 members of the community attended this meeting via Zoom, or through the YouTube live broadcast.

III. Meeting Agenda

This public workshop was divided into two parts: an interactive public meeting facilitated by the consultant team, and a formal City Council Study Session facilitated by the City Clerk.

- | | |
|--|---------------|
| 1. (4:00p) Welcome/Roll Call: | City Clerk |
| 2. (4:05p) Facilitation Protocol: | R+A |
| 3. (4:10p) Moffett Park Vision: | R+A |
| 4. (4:25p) Sea Level Rise Overview Presentation: | SFEI |
| 5. (4:45p) Hazards Profile & Sea Level Rise Adaptation Strategy: | ESA |
| 6. (5:00p) Flood Control & Restoration Projects: | Valley Water |
| 7. (5:10p) Multi-benefit Strategies for Moffett Park: | SFEI |
| 8. (5:20p) Round Table Discussion | <i>Public</i> |
| | |
| 1. (5:50p) Public Comment | <i>Public</i> |
| 2. (6:10p) City Council Study Session | City Council |
| 3. (7:00p) Adjourn | |

IV. Meeting Summary

1. Welcome/Roll Call + Meeting Objectives

The virtual meeting began with a roll call of present City Council Members, introductions from the project staff and consultant team, and a brief summary of the workshop’s agenda and objectives. The meeting objectives were described as follows:

- Provide an update on the Moffett Park Specific Plan process and schedule
- Review history, vision, and guiding principles for Moffett Park
- Present regional and local approaches to sea level rise and how they impact Moffett Park
- Answer questions about the regional and local approaches to sea level rise and flooding

The consultant team then provided an overview of opportunities for community input, including an announcement of upcoming virtual public office hours (scheduled for Monday, December 7, 2020 from 12:00p – 1:00pm), references to the project website and email address, and a summary of the Mentimeter platform that would be used throughout the meeting to poll workshop participants and receive public questions.

Workshop participants were encouraged to access a Mentimeter digital survey through personal devices. This platform would be used at several intervals throughout the meeting to facilitate pre-determined polling questions. Participants were also instructed on how to submit individual questions at any point during the public meeting: these questions were reviewed and later addressed in the Round Table Discussion. R+A served as a facilitator on the Mentimeter platform and selection of questions. Participation was voluntary.

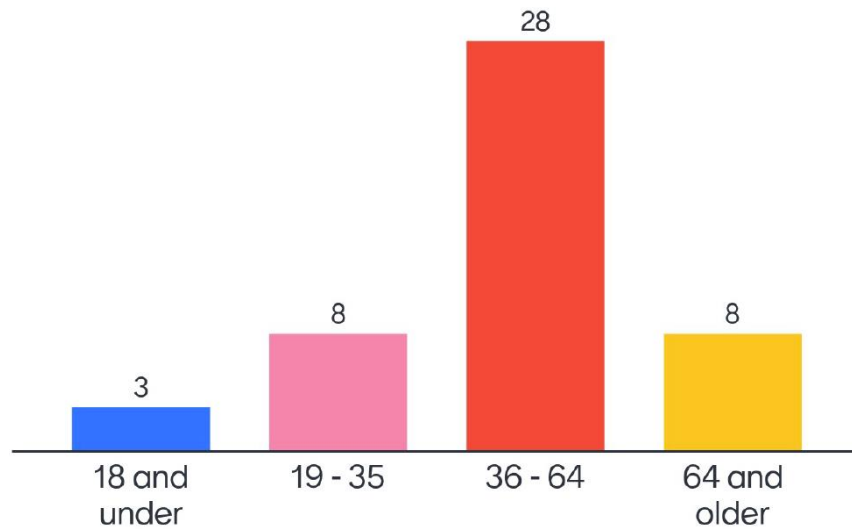
An inventory of all submitted questions can be found in the Appendix.

2. Introduction: Polling Round #1

Workshop participants were asked to answer a series of introductory questions that allowed them to test out the Mentimeter functions, and also provide some context for who was present for the meeting. All submitted responses were immediately reflected on-screen, as each response was reported and aggregated anonymously. Participation was voluntary, with some participants choosing to submit responses for only a select number of questions. The following provides a summary of the demographic breakdown of meeting attendees.

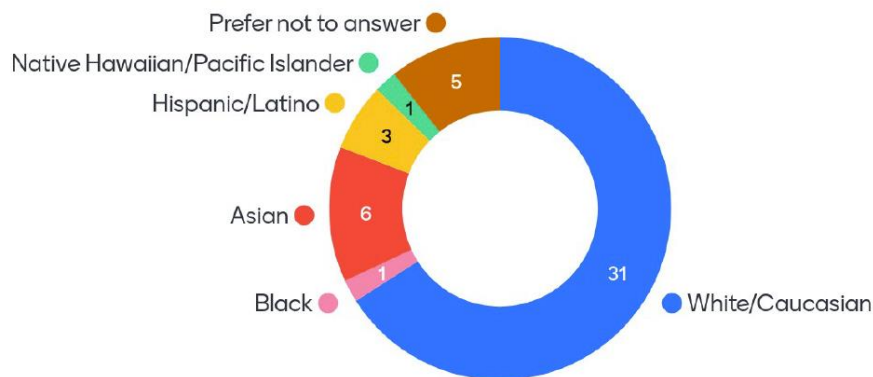
Polling Question #1. What is your age?

Total Responses: 47



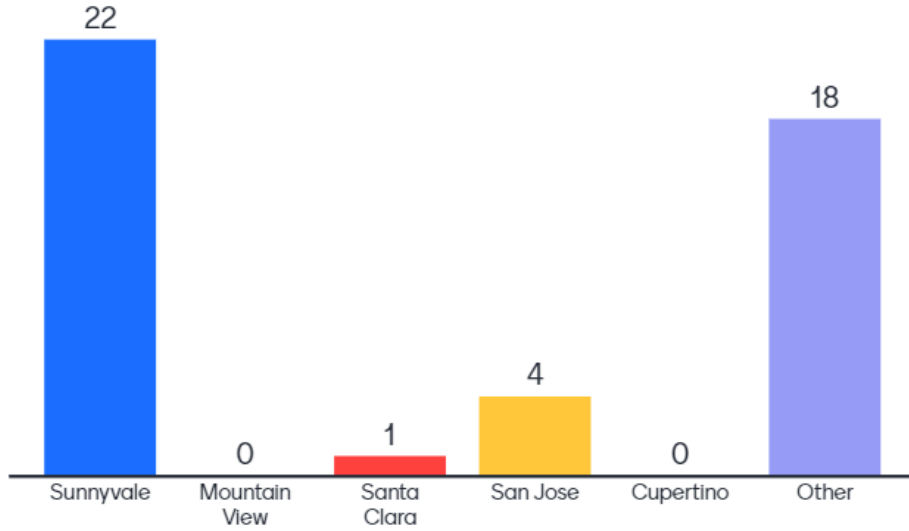
Polling Question #2: How would you describe yourself? (You can choose more than one)

Total Responses: 46



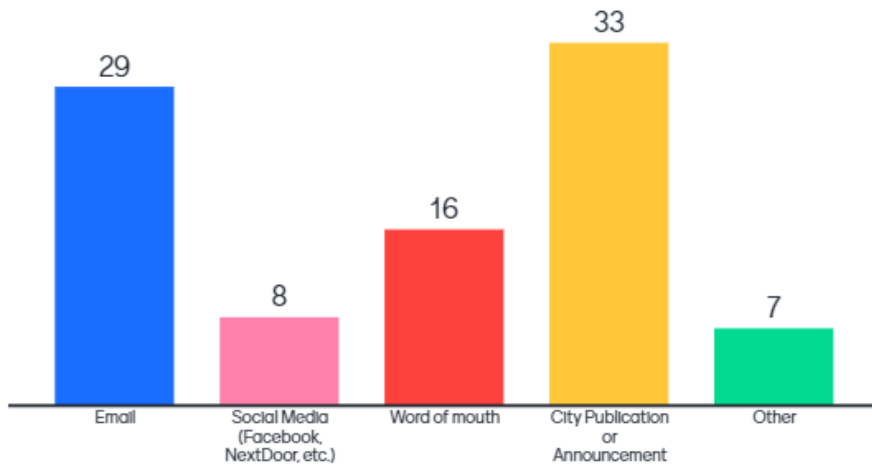
Polling Question #3: Do you live in Sunnyvale? If not, where?

Total Responses: 45



Polling Question #4: How did you hear about this event? Check all that apply

Total Responses: 47



3. Moffett Park Vision

R+A provided a summary of the Moffett Park Specific Plan area and introduced its history and development, with particular attention paid to the previous specific plan from 2004 which prioritized the Plan area as an area of economic development for the city.

The current Vision Statement for the Plan update was also shared:

Draft Vision Statement

Redefine the Moffett Park Specific Plan as an “Ecological and Innovation District”

The vision for Moffett Park is a well-connected ecological innovation district with a diverse mix of uses that serves as a model of resilience, climate protection, equity and economic opportunity.

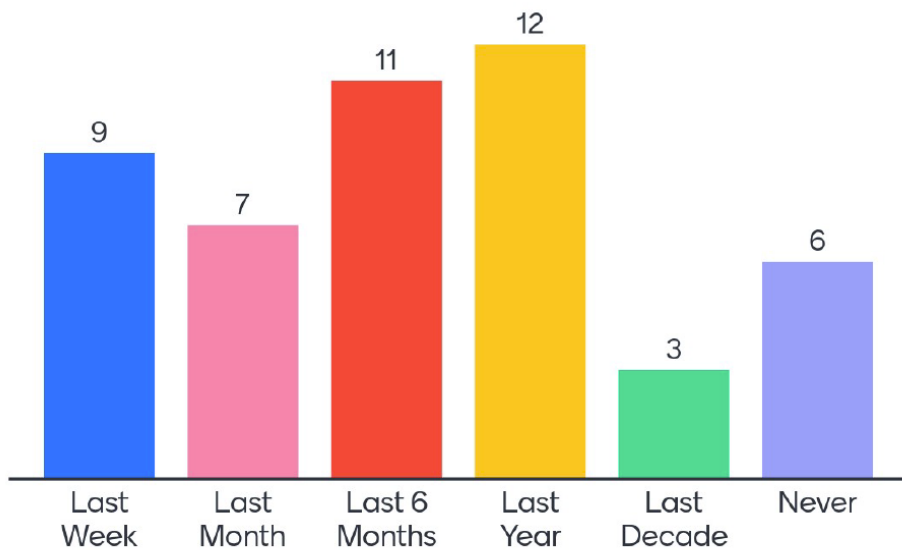
24 November 30, 2020 Moffett Park Specific Plan

4. Workshop Presentations

Transitioning into the topic-specific presentations, workshop participants were again directed to a series of Mentimeter questions regarding matters of open space and environmental vulnerability. As shown below, the top three climate hazards of concern to participants were: 1.) Sea Level Rise and Flooding; 2.) Forest Fires; and 3.) Droughts and Water Shortages.

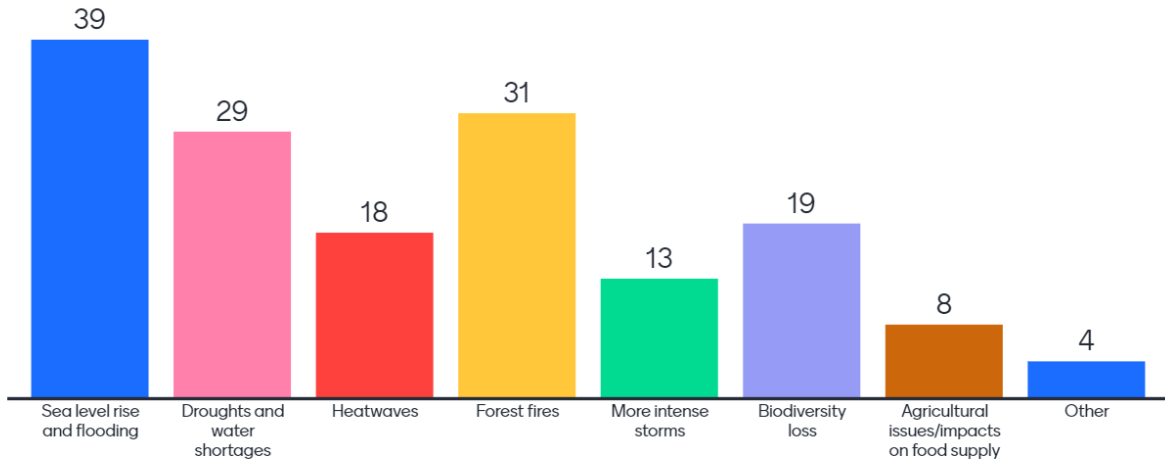
Polling Question #6: When was the last time you took a walk/bike ride on the Bay Trail in Sunnyvale?

Total Responses: 48



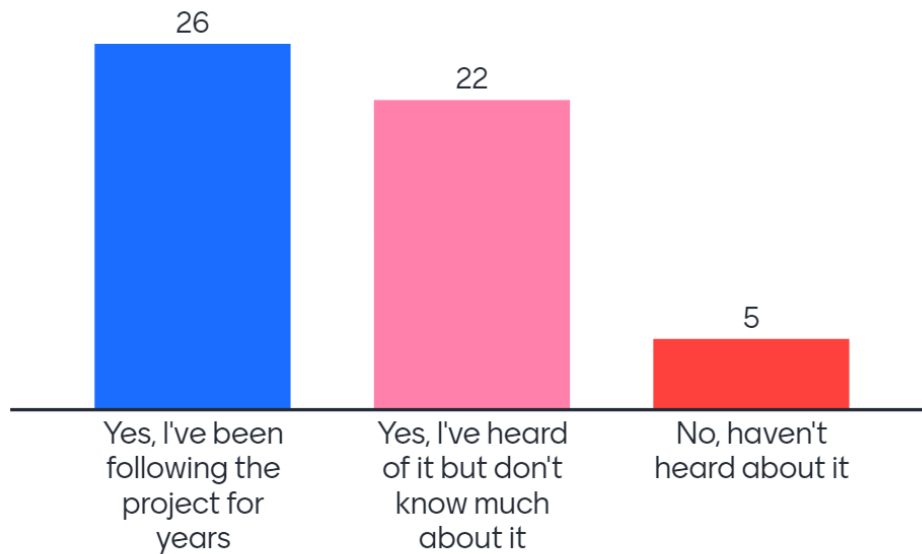
Polling Question #7: What are your biggest concerns associated with climate hazards? Check up to 3.

Total Responses: 55



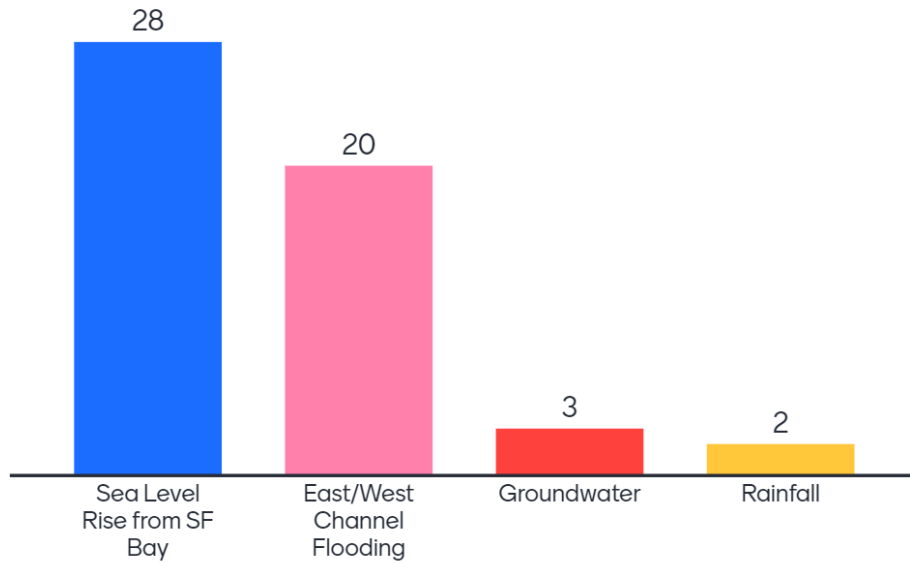
Polling Question #8: Are you aware of the South Bay Salt Pond Restoration Project?

Total Responses: 53



Polling Question #8: Which potential source of flooding do you think is most important in Moffett Park?

Total Responses: 53

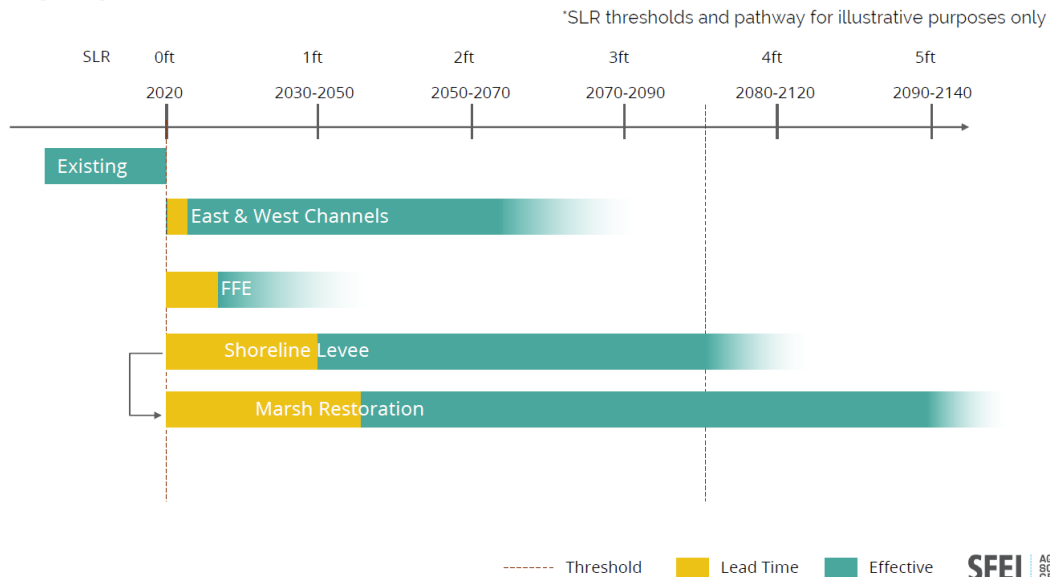


Sea Level Rise Overview Presentation

Jeremy Lowe from SFEI was the first to present, and offered a comprehensive and engaging presentation detailing current and anticipated challenges regarding sea level rise. His presentation included a conceptual overview of different flooding sources, existing management strategies currently underway in Moffett Park, and finally a proposed timeline of future interventions that could serve to address flooding in the near- and long-term.

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Timeline



Hazards Profile and Sea Level Rise Adaptation Strategy

Matt Brennan of Environmental Science Associates presented next with slides focused on detailing existing conditions in Moffett Park, and the most recent sea level rise calculations that detail the level of flooding expected for the plan area. Moffett Park faces threats of sea level rise from the San Francisco Bay, as well as ground water intrusion. He concluded with details regarding active and proposed adaptation strategies and interventions at both the regional and site-level, including infrastructure improvements and habitat restoration.

Summary of Proposed Adaptations

Measure Name	Actions
South San Francisco Bay Shoreline Project Phase III Feasibility Study	<ul style="list-style-type: none"> • Protect: Improve coastal levees, habitat transition zone • Accommodate: Restore marsh
South Bay Salt Ponds Restoration Project	<ul style="list-style-type: none"> • Realign: Breach outboard levees • Accommodate: Restore marsh
Sunnyvale East & West Channels Flood Protection Project	<ul style="list-style-type: none"> • Protect: Raise levees and floodwalls • Accommodate: Channel setbacks
Finished Floor Elevation	<ul style="list-style-type: none"> • Accommodate: Raise finished floor elevation above FEMA minimum
Stormwater Vulnerability Assessment	<ul style="list-style-type: none"> • Accommodate: <ul style="list-style-type: none"> • Collect and discharge stormwater with pump • Enhance northwest detention wetlands
Groundwater Data Collection & Vulnerability Assessment	<ul style="list-style-type: none"> • Accommodate: Characterize the timing and groundwater change
Water Pollution Control Plant Master Plan	<ul style="list-style-type: none"> • Protect: Site ring levee • Realign: Reduce reliance on oxidation pond

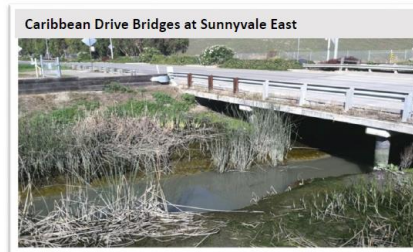


Flood Control & Restoration Projects

Santa Clara Valley Water was third to present. Roxanne Grillo provided a regional overview of active projects meant to address sea level rise, reduce flooding, and also develop new open space resources in Sunnyvale and the wider South Bay. Valley Water is currently engaged in a number of efforts in collaboration with local, regional, and federal entities. Stephen Ferranti then detailed efforts specific to Moffett Park which include floodwalls, sediment removal, and infrastructure upgrades.

Project Description: Bridge & Culvert modifications

- East Channel: Caribbean Drive Bridges
 - Replace existing bridges with triple cell box culvert
- West Channel: Carl Road Culvert
 - Replace existing culvert with larger single cell box culvert



- Headwall Raising at several locations

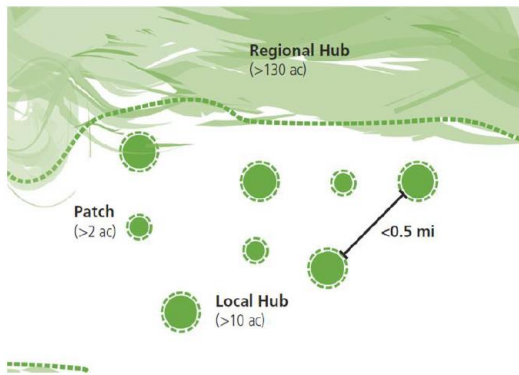


Multi-Benefit Strategies for Moffett Park

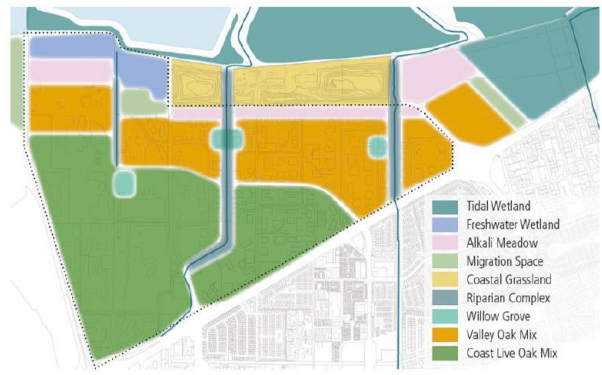
Micaela Bazo from SFEI was the final presenter of the evening. She identified several strategies and interventions that could be introduced in Moffett Park that would simultaneously address sea level rise and climate change, while also maximizing opportunities for ecological growth and habitat. Many of these strategies are discussed in greater detail in the *Moffett Park Specific Plan Urban Ecology* (2020) technical report.

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Create and upgrade habitat patches



Distributed network of high-quality habitat



Native habitat zones

SFEI AQUATIC SCIENCE CENTER

A final Mentimeter question served as a conclusion to these presentations, and helped prime the audience for the subsequent round table discussion.

Polling Question #9: Which ecological enhancement would you prioritize for Moffett Park?

Total Responses: 56



5. Round Table Discussion

The interactive public meeting concluded with approximately 30 minutes of active Q&A, facilitated by R+A. The round table discussion is summarized below. As previously described, workshop participants could submit questions using Mentimeter throughout the entire workshop (see Appendix). A panel consisting of the following members were available to answer questions:

Round Table Discussion Panel

City of Sunnyvale

- Andy Miner, Assistant Director of Community Development
- Michelle King, Principal Planner
- Ramana Chinnakotla, Director Of Environmental Services
- Melody Tovar, Regulatory Programs Division Manager

Raimi + Associates

- Eric Yurkovich, Associate Principal
- Chris Sensenig, Associate – Urban Designer

Environmental Science Associates (ESA)

- Matt Brennan, Senior Engineering Hydrologist

San Francisco Estuary Institute(SFEI)

- Jeremy Lowe, Senior Environmental Scientist
- Micaela Bazo, Associate Environmental Scientist

Valley Water

- Sunshine Ventura Julian, Capital Engineering Manager (Future Shoreline Phase III Feasibility Study)
- Roxanne Grillo, Associate Civil Engineer (Future Shoreline Phase III Feasibility Study)
- Stephen Ferranti, Capital Engineering Manager (Sunnyvale East and West Channels Flood Protection Project)
- Denis Ruttenberg, Associate Civil Engineer (Sunnyvale East and West Channels Flood Protection Project)
- Jason Gurdak, Senior Water Resources Specialist (Groundwater Subject Matter Expert)
- Emily Zedler, Senior Engineer (Hydrology/Hydraulics Subject Matter Expert)

Questions about sea level rise adaptation strategies:

- Q: Seems like we don't yet know whether the Corps will do the levee, as yet. How can we responsibly agree to more development here at this time?
 - A: Projects being studied and proposed for the area are engaging a wide range of organizations at the local, State, and Federal levels. While the Army Corp of Engineers has significant influence, there are other funding mechanisms available to allow projects to proceed.
- Q: How often does the State review its sea level rise projections? How can the plans be made to be flexible in case there is significant increase in SLR projections in an earlier time frame?
 - A: The current state mandated sea level rise projections come from the Ocean Protection Council 2018 Report, which call for a review of their projections every five years. An update is anticipated in 2023. Regarding plan flexibility, the challenge is the uncertainty regarding *when* things will occur: one approach is frequent reevaluation of policy and strategy to consider whether they're effectively responding to the challenges that are being witnessed in real time.
- Q: What is the impact to the project(s) if Federal funding is not provided?
 - A: Projects are looking at a broad range of organizations and institution at the local, State, and Federal levels. Each organization has access to individual funding mechanisms, and the hope is a collective approach to funding various projects.

Questions about Moffett Park:

- Q: Which buildings currently located in Moffett Park meet the requirements to survive sea level rise? Do all buildings have to be replaced?
 - A: All existing buildings and pipeline projects are built to current FEMA standards. Moving forward and in the event of significant flooding, not all buildings will need to be replaced – individual retrofits are most likely.
- Q: Are East and West channel improvements going to be concrete-lined or raised earth berms with habitat or something else? Aren't concrete-lined channels out of favor now?
 - A: Concrete on both channels will only be applied at the bridge crossings. The total amount of vegetation within channels will not be reduced, as the majority of the existing channel is raised earth. Both channel improvements are fully funded.
- Q: An emerging area of climate mitigation research involves the high carbon sequestration potential of marshlands. Is the City planning to increase marshland area in the MP Specific Plan area?
 - A: Valley Water will study the opportunity to increase marshland as a component of their Phase 3 Feasibility Study. SFEI is also discussing

opportunities to enhance existing habitats through interventions such as increasing the terrestrial buffer along the Bay.

Appendix

Questions and comments submitted to Mentimeter

1	Is sea level happening faster than anticipated?
2	what does it mean to sequester carbon?
3	What is bisymmetry?
4	Can the channels have bike paths on them?
5	Why allow new housing to be built in the Moffett Park specific area before federal funding for SLR protection like new levees/horizontal levees/wetland protection is available?
6	The ECO_INNOVATION definitions lack awareness of PLACE. could be anywhere
7	Urban forest is not native. This area was grass lands and marshlands. Why are we looking at a urban forest? We are already seeing management challenges with fires and other issues
8	What are concerns, if any, about leeching from the lower elevations of the landfill?
9	What is the total cost for SLR levee to provide flood protection to 3.5 feet of SLR.
10	What event will prompt a concern of groundwater intrusion by the bay?
11	OPC put out a revised statement in Feb 2020 moving the 3.5'SLR to 2050 for "critical infrastructure". Utilities and access roads to water treatment plant should fall under this , Don't you agree?
12	"California's Coast and Ocean Summary Report" shows scenario RCP 4.5, the SF Bay will experience "100-year floods" every week by 2100. How does this affect sewers and land draining?
13	What amount of sea level rise was the Sunnyvale Water Pollution Control Plant surrounding wall (being constructed now) designed for?
14	Once the sea level rises it will take another ice age to put the water back onto Greenland and Antarctica. How long will these levees and pumps need to be maintained?
15	What streets border the east and west channels?
16	Can you clarify if bridges will be replaced on East and West Channel and cost.
17	What effects on the environment does raising and widening the levees and channels have?
18	A 2015 article in "Science" by Dutton looks at SLR in past warm periods. The Pliocene 3 million years ago had similar CO2 levels. Seas were 75 feet higher. What is the plan for higher sea levels?
19	Any plans to follow the google model for the other channel (naturalized, wider setbacks, etc.)?
20	What design level of protection are the Brides for East Channel and West Channel?
21	How wide is the west channel expected to be when the project is completed?
22	East west channel head walls are fine BUT problem is that the pipes under the road are the CHOKe point so it restricts capacity
23	Why not defer the flood walls on the channels and instead, integrate with nature based solution and NATURE?
24	This study is focused on Moffett Park but please extend the sea level rise map to include the area east of Lawrence Expressway to city limits
25	What distances are proposed between the east and west channels and the new levees along each of them?
26	Moffett Field is a superfund site. Does this impact Moffett Park?
27	Do you have a Risk Map that synthesizes/integrates the SLR, Flooding and groundwater level, storm events all in one map?
28	With the current protections in place, what decade do we start to have an issue with water exceeding the current protections?

29	To valley water? how does it change your plans that FEMA has now decided to include nature based solutions as part of the cost benefit analysis?
30	Is it possible to extend the wetlands further west in case the channels overflow ?
31	Why wouldn't a longer term solution like horizontal levees be proposed rather than shorter term vertical levees that will only last a short term like 50 years?
32	Will you consider tying land use entitlements to investments in eco-resilience?
33	The East and West Channels can be major bicycle transportation routes in addition to "recreational" use. Do our plans treat the channel improvements as transportation initiatives?
34	How far inland will the channels feed into ?
35	I visited west channel at king tide on a sunny day Nov 16, 2 weeks ago. The water was above the pipe holes under bridge. The road needs to be raised?
36	Can you expand retention to parking lots at Twin Creeks, Baylands Park, Lockheed?
37	Could there be a measure on the ballot in the future to raise funds for this project? Additional taxes for residents?
38	Much of the area needs to be able to go back to nature. No more buildings and development belong in a threatened area . Can one part of Sunnyvale have natural areas for habitat and people to decompress
39	Will the corporate beneficiaries of the \$400 million 4 mile levee pay for it or will we..the public..pay for them to do more development
40	Comment: fully funding IS NOT a good reason to build a bad project (concrete flood walls)
41	VW - Please explain - no plans for concrete flood walls on the levee?
42	Who is going to be responsible for revising the Flood Hazard areas after SLR Levee is complete and when will this process start, and anticipated completion timeline.
43	Each time sea level rise is evaluated, the height is always higher and sooner. Also groundwater studies lag behind above ground studies. Will the MPSP include times for updating with the latest science?
44	Will the City of Sunnyvale be relying on Moffett Park for ECONOMIC resilience in the next 3+ decades?
45	The bay was filled in and destroyed nature. Build buildings in west Sunnyvale. Time to put priority on nature.
46	Seems like we don't yet know whether the Corps will do the levee, as yet. How can we responsibly agree to more development here at this time.
47	How often does the state review its sea level rise projections? How can the plans be made to be flexible in case there is significant increase in SLR projections in an earlier time frame?
48	What is the impact to the project(s) if federal funding is not provided?
49	Which buildings currently located in Moffett Park meet the requirements to survive sea level rise? Do all buildings have to be replaced?
50	Are East and West channel improvements going to be concrete lined or raised earth berms with habitat or something else? Aren't concrete lined channels out of favor now?
51	An emerging area of climate mitigation research involves the high carbon sequestration potential of marshlands. Is the city planning to increase marshland area in the MP specific plan?