

RWQCB TOUR: NORTH RICHMOND LIVING LEVEE PROJECT



THURSDAY, MAY 18, 2023

MITHŪN



WEST COUNTY
WASTEWATER

SAN FRANCISCO BAY
RESTORATION AUTHORITY



Multi-Benefit Approach for Sea Level Rise Adaptation on the North Richmond Shoreline



North Richmond Shoreline Adaptation Project Boundary

~5 Mile North Richmond Shoreline Area (Current Scope: Collaborative Shoreline Plan)
TIMING TO SUBMIT FOR PERMIT TBD

Inclusive of critical sub-tidal habitat, mudflats and aqueous parcel boundaries

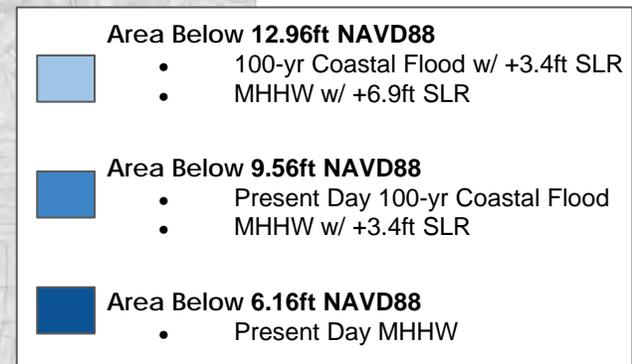
Parchester Village in the North

Pt. San Pablo

PHASE 1- LIVING LEVEL DEMONSTRATION PROJECT at WCW FACILITY (Current Scope: 30% Drawings)
INTENT TO SUBMIT FOR PERMIT 2024-2025

WCW

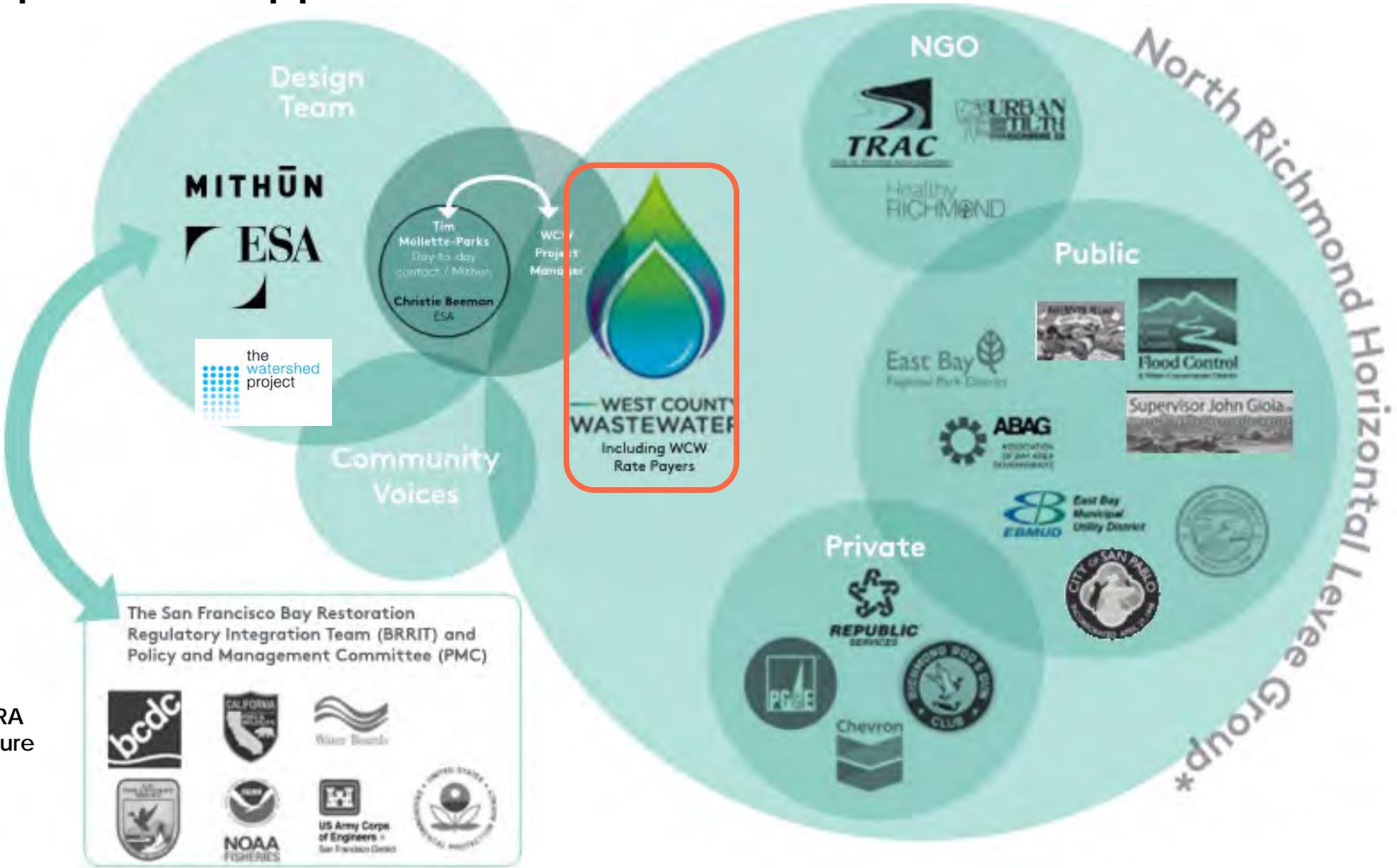
Chevron Refinery



Castro Creek in the South

0 0.25 0.5 1 Miles

Partnerships-based Approach



*Funded by SFBRA grant with Measure AA \$

North Richmond Living Levee Working Group



- Regular Meetings since September 2019, with lead from San Francisco Estuary Partnership & West County Wastewater
- Position Nature-based Adaptations for external funding opportunities
- Provide information, support to WCW Project Management Team throughout conceptual design process for a Prototype Living Levee & Shoreline Adaptation Planning effort

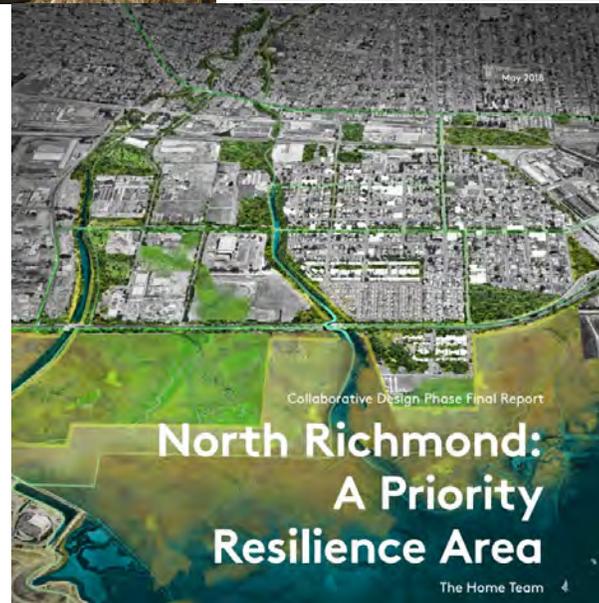
Building on the Legacy of Organizing, Planning & Stewardship in North Richmond



North Richmond Shoreline VISION

A community-based approach to planning for the upland transition zone

The North Richmond Shoreline should be managed, restored and protected to sustain multiple benefits including ecosystem services, community health, economic stability, local jobs, educational opportunities, safe places for recreation, vibrant natural habitat and a source of clean, healthy food.



2019 North Richmond Quality of Life Plan



Outreach

Adaptación de la costa de North Richmond:



Los miembros de la comunidad:

- Trabajarán aproximadamente de 1 a 2 horas a la semana entre febrero y septiembre de 2022, con un receso de verano durante julio y agosto.
- Completarán tareas incluyendo: coaprendizaje, recopilación y análisis de datos, participación de la comunidad, preparación de materiales y participación y dirección de reuniones.
- Participarán en uno de los grupos de trabajo comunitarios siguientes: Imaginando soluciones, Encuesta comunitaria, o Sostenibilidad y crecimiento.

Los miembros de la comunidad recibirán un pago máximo de \$1,000 por el proyecto (\$50 por reunión)

La fecha límite de solicitud es el 31 de enero de 2022!!!

Realizaremos un webinar para proporcionar más información y responder cualquier pregunta el **lunes 24 de enero de 6 a 7 pm.**

Un enlace al webinar está disponible en TheWatershedProject.org/Shoreline.

Para más información y para aplicar, visite TheWatershedProject.org/Shoreline o contacte a Eunice Quintanilla a eunice@thewatershedproject.org o 707-726-2829 (mensaje de texto o llamada).



North Richmond Shoreline Adaptation Project:



Community Members can participate by:

- Work approximately 1-2 hours a week between February and September 2022, with a summer break during July and August.
- Complete tasks such as co-learning, gathering and analyzing data, conducting community engagement, preparing materials, and participating in and leading meetings.
- Participate in one of the following community workgroups: Envisioning Solutions, Community Survey, or Sustainability and Growth.

Community members will receive a maximum payment of \$1,000 for the project (\$50 per meeting).

The application deadline is January 31st, 2022!!!

We will hold a webinar to provide more information and answer any questions on **Monday, January 24th, 6-7 pm.**

A link to the webinar is available at TheWatershedProject.org/Shoreline

For more information and to apply, visit TheWatershedProject.org/Shoreline or contact Eunice Quintanilla at eunice@thewatershedproject.org or 707-726-2829 (text or call).



Online Workshops: Understanding Priorities for Access, Amenities, Activities & Restoration

Live MarkUp:



loops, not just lines!

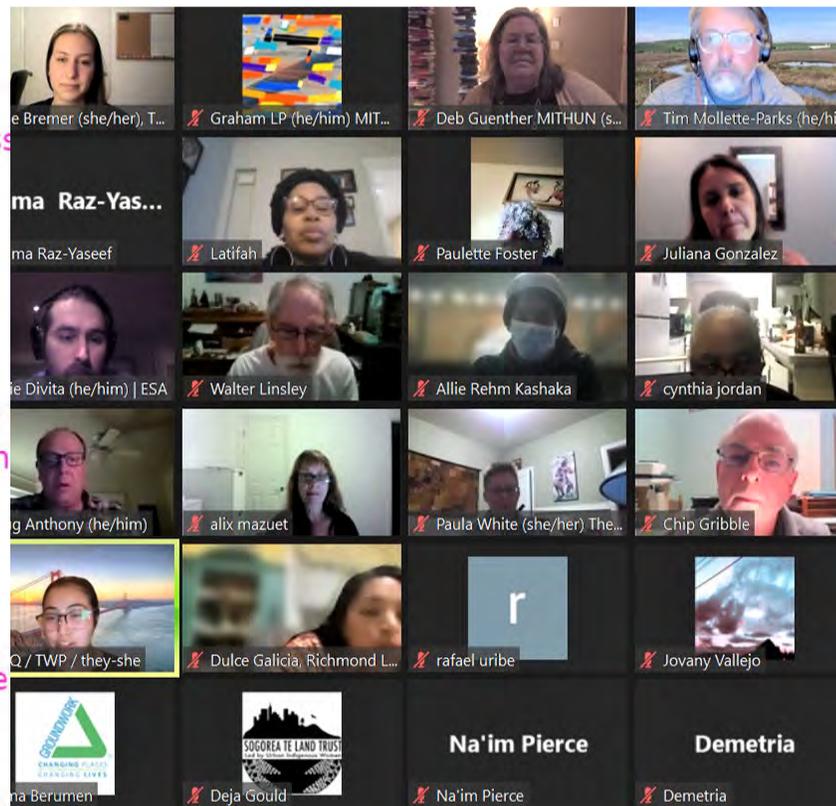
prioritize bike and ped, running access

bridge ++

"island"

clarity of wayfinding

interactive education component - accessible throughout - in diff languages, etc (so much wildlife etc) more engaging for youth; history; function of WCW; tribal and indigenous engagement



COMMUNITY ENGAGEMENT



“A Flexible Band” Multi-Benefit Adaptations

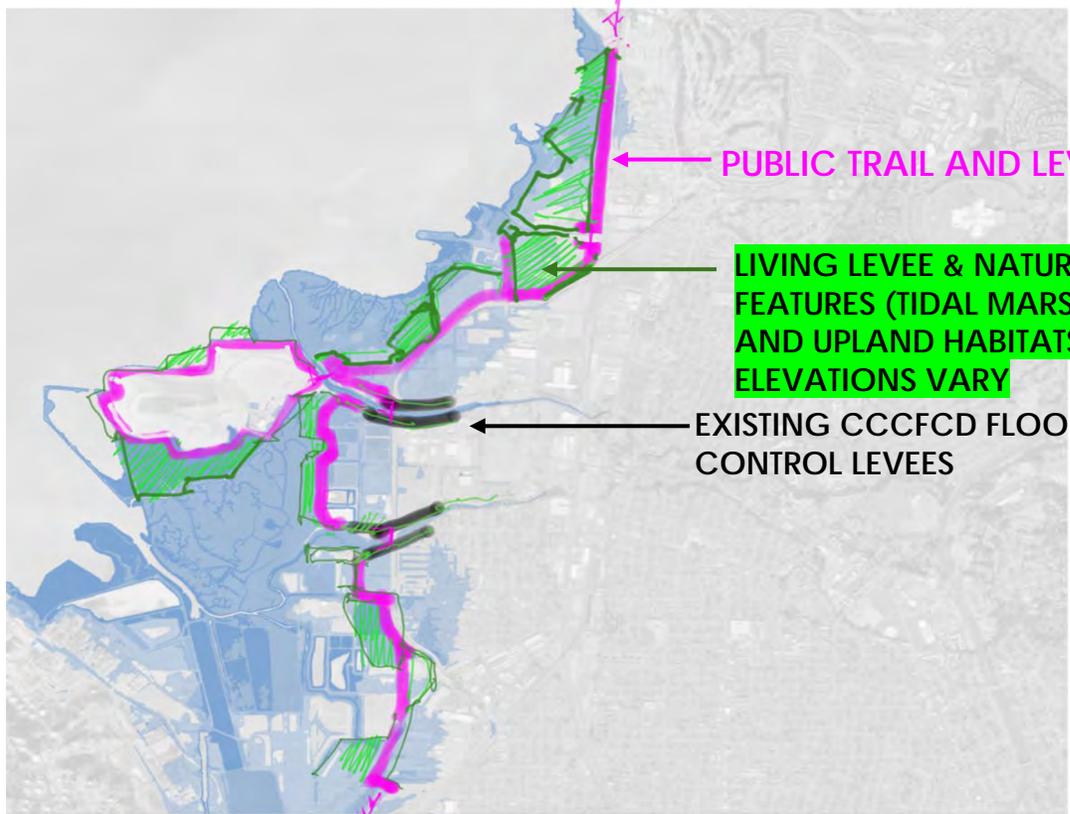


Avoid impacts to existing tidal habitats

Habitat Slope and 'Living' Features outboard of Levee Core allow for habitat restoration, protection, and migration

PUBLIC TRAIL AND LEVEE CORE
20' +/- WIDE,
ELEVATION 14'
(resilient to 2070),
or
ELEVATION 18'
(resilient to 2100)

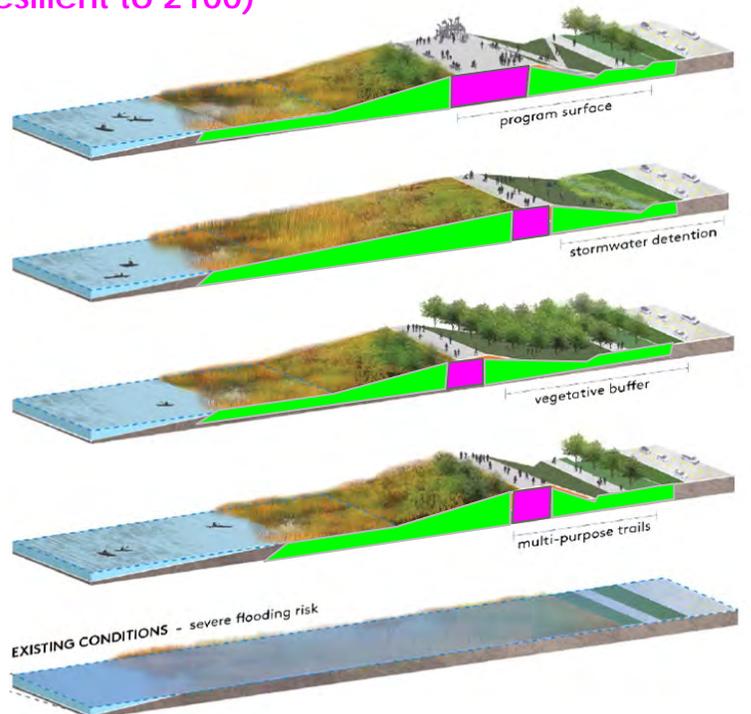
Green Stormwater Infrastructure and other 'Living' features back of Levee Core



PUBLIC TRAIL AND LEVEE CORE

LIVING LEVEL & NATURE-BASED FEATURES (TIDAL MARSH, TRANSITION AND UPLAND HABITATS). ELEVATIONS VARY

EXISTING CCCFCD FLOOD CONTROL LEVELS



program surface

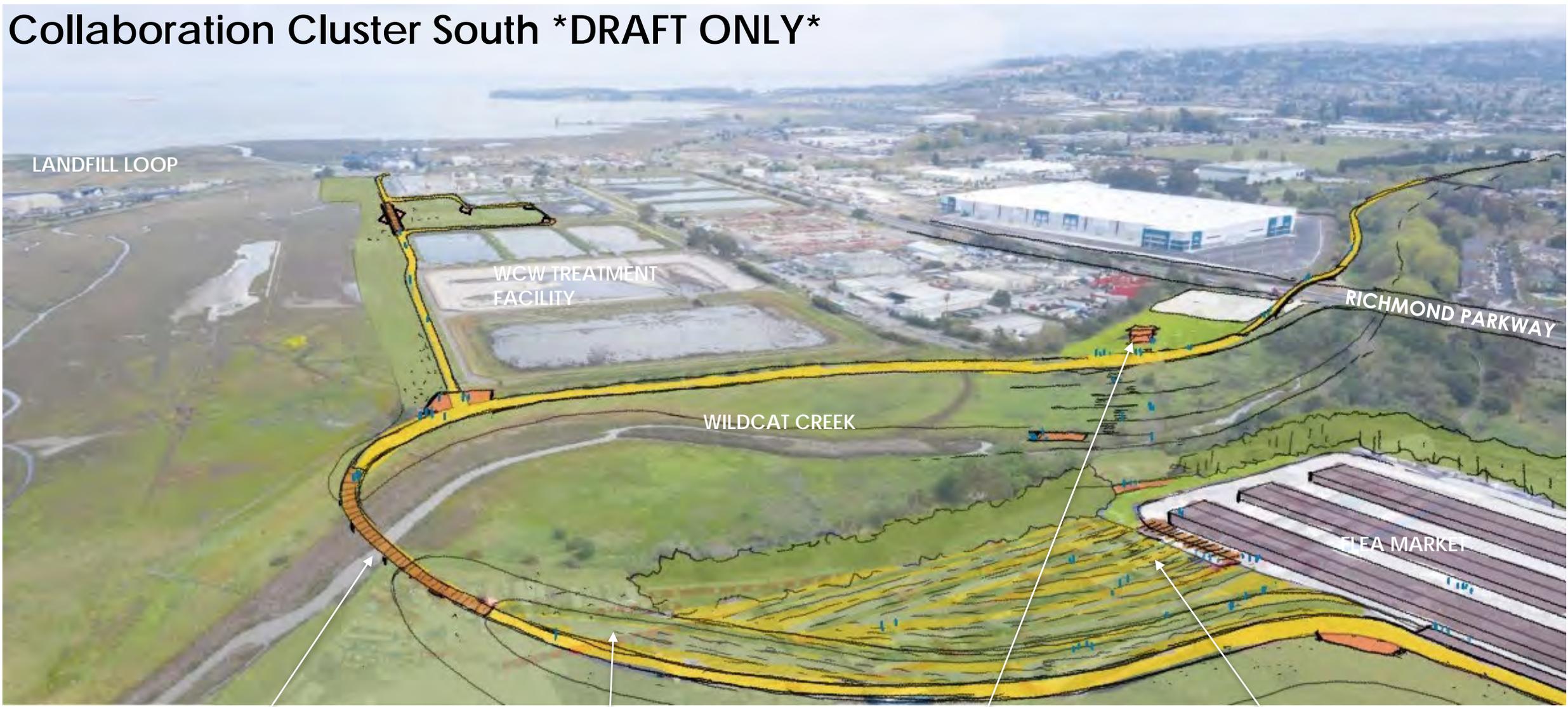
stormwater detention

vegetative buffer

multi-purpose trails

EXISTING CONDITIONS - severe flooding risk

Collaboration Cluster South *DRAFT ONLY*



boardwalk



native garden

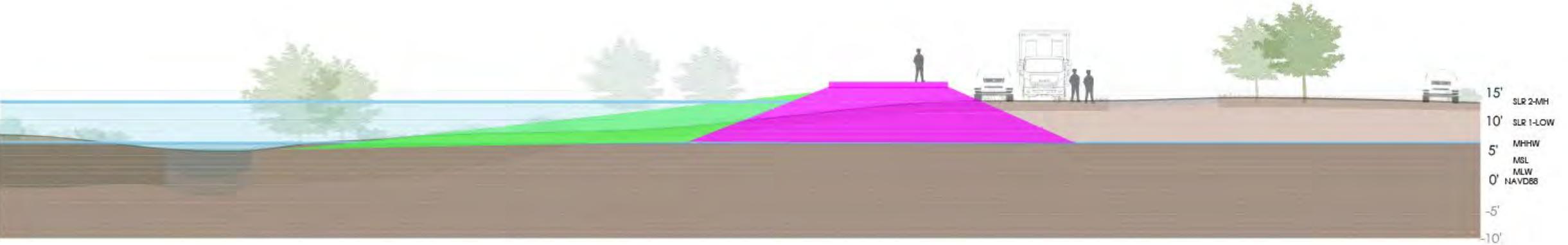


info kiosk / interpretation



native plant nursery

STUDY AREA: Cluster South (B) intervention with sea level rise



CLUSTER SOUTH: MIDDLE

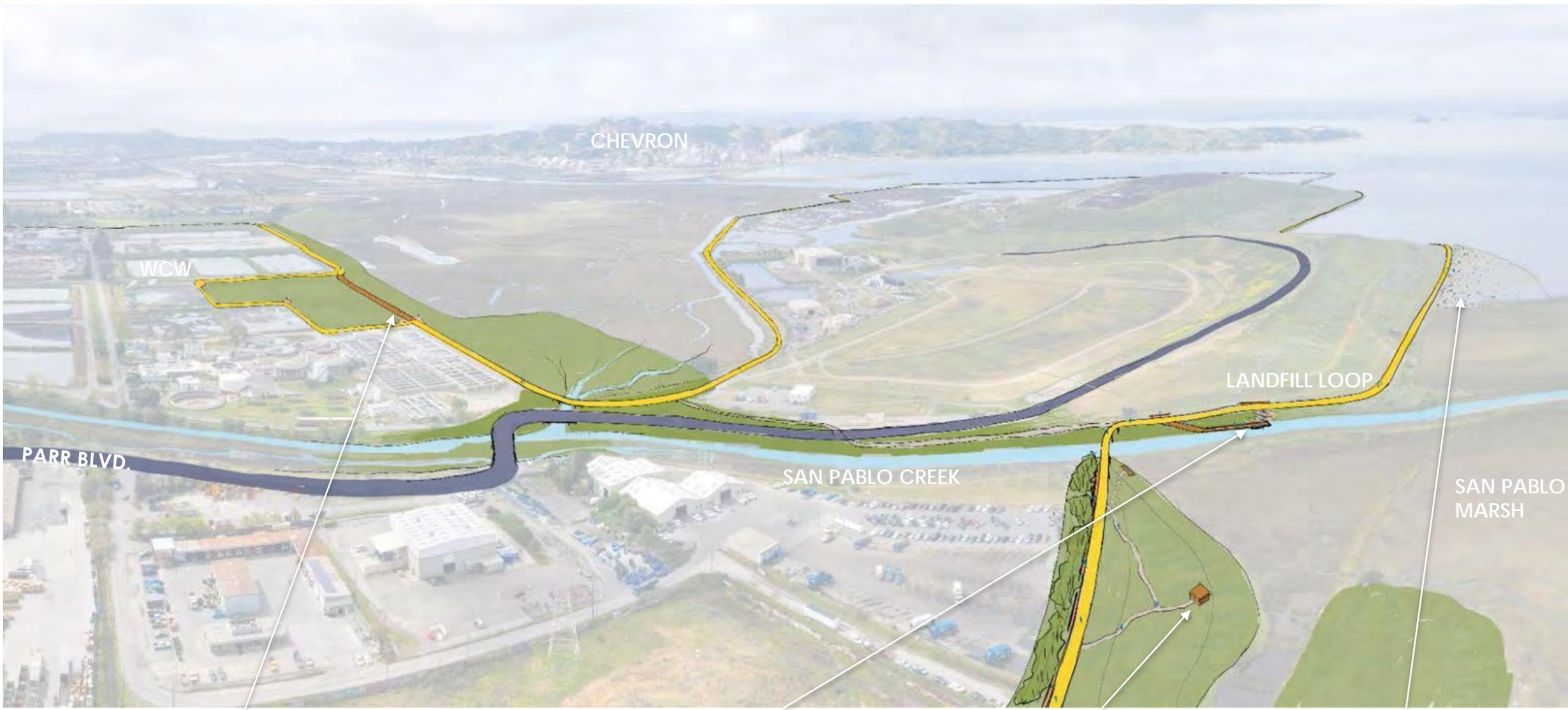
SCALE 1:20

Collaboration Cluster North *DRAFT ONLY*

Aerial View (looking South)



SAN PABLO MARSH



boardwalk



boat launch



bird blind



gravel beach

Pilot Project: Living Levee + Access + Amenity Opportunities

Aerial View



LANDFILL LOOP

WCW TREATMENT FACILITY

WILDCAT CREEK

RICHMOND PARKWAY

FLEA MARKET

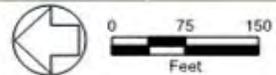
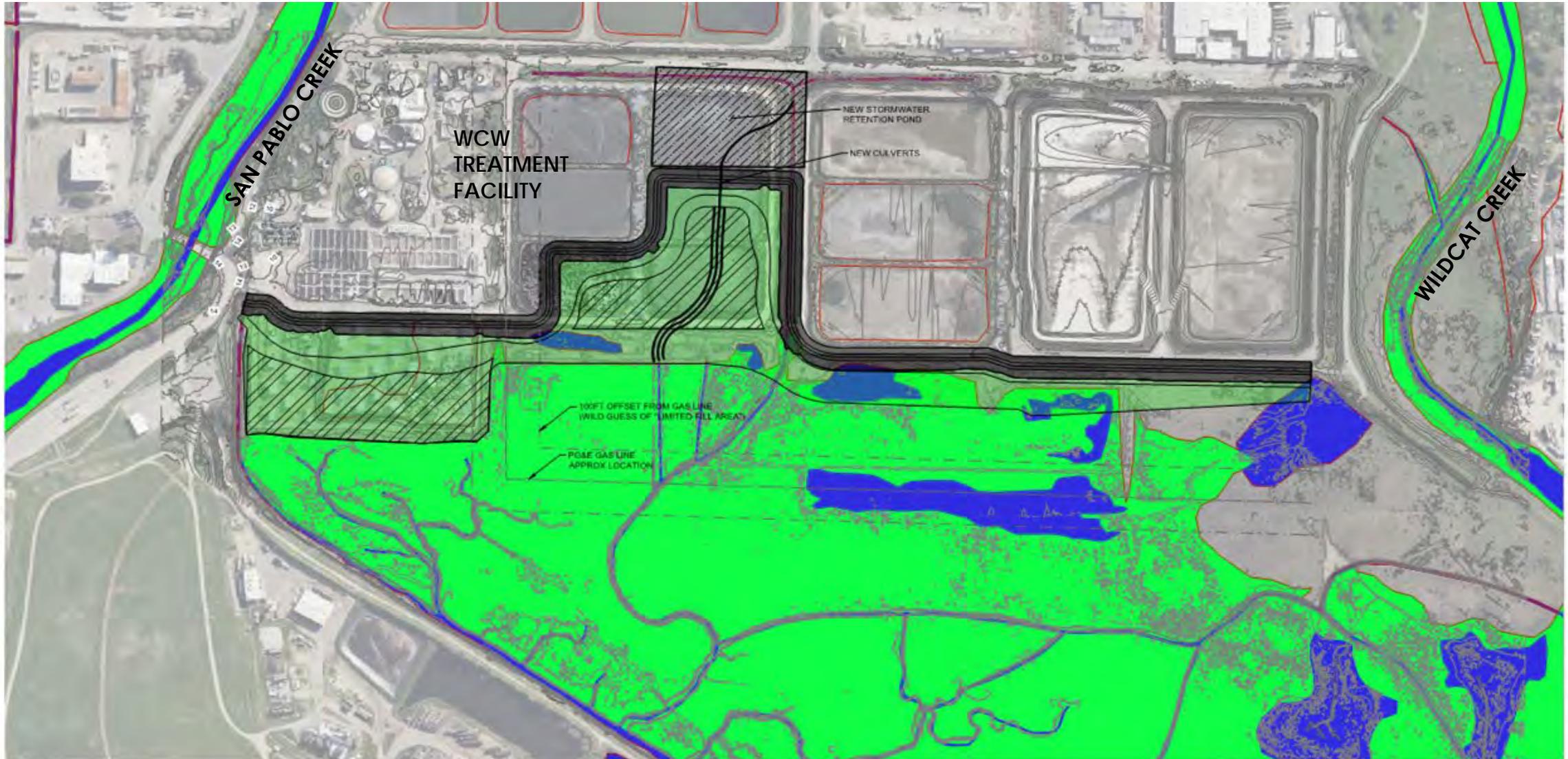


The shading indicates areas that are at or below 13ft NAVD88. This elevation is equal to:

- **MHHW + 6.9 ft**
 - 2100 SLR*
- **Highest Astronomical Tide +5.5ft**
 - 2090 SLR*
- **10-year coastal flood +4.5ft**
 - 2080 SLR*
- **100-year coastal flood + 3ft**
 - 2065 SLR*

**High Emissions, Med/High Risk-Aversion Scenario (OPC 2017)*

Phase 1 Demonstration Project: Proposed Footprint (DRAFT)



- LEGEND**
- APPROXIMATE PROJECT FOOTPRINT
 - LIKELY TIDAL WETLAND
 - LIKELY TIDAL WATERS OF THE US
 - APPROXIMATE TIDAL WETLAND RESTORATION

Preliminary Habitat Impacts Summary:

Wetland Restoration: 8 to 12 acres

Wetland Impacted to Transition/Uplands: 1 to 2 acres

Waters of US convert to Transition/Uplands: 1 to 2 acres

Net Change in Wetland Area: 5 to 10 acres (net gain)

FIGURE 3

Preliminary
Draft,

Phase 1 Demonstration Project: Potential Trail & Amenity Locations (DRAFT)

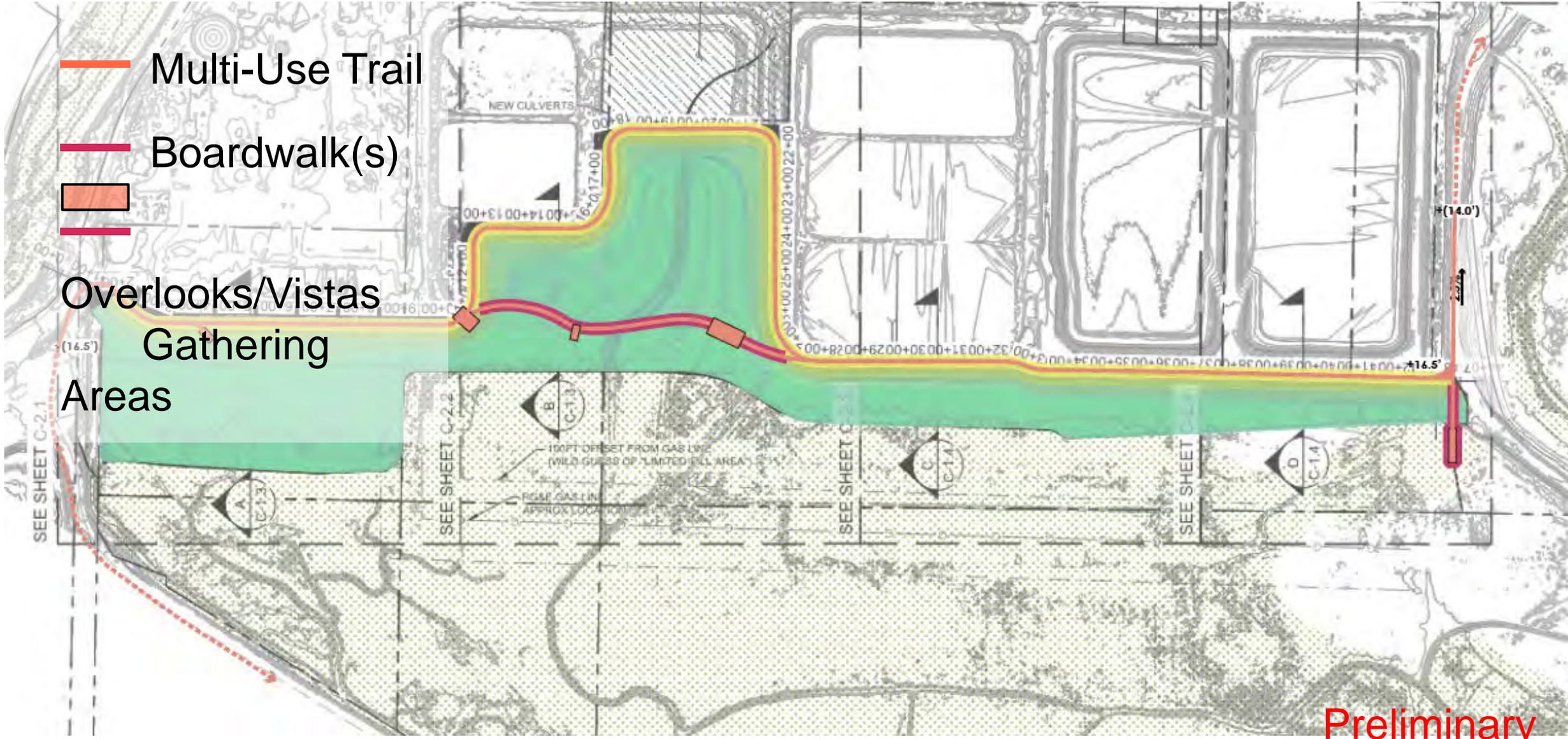
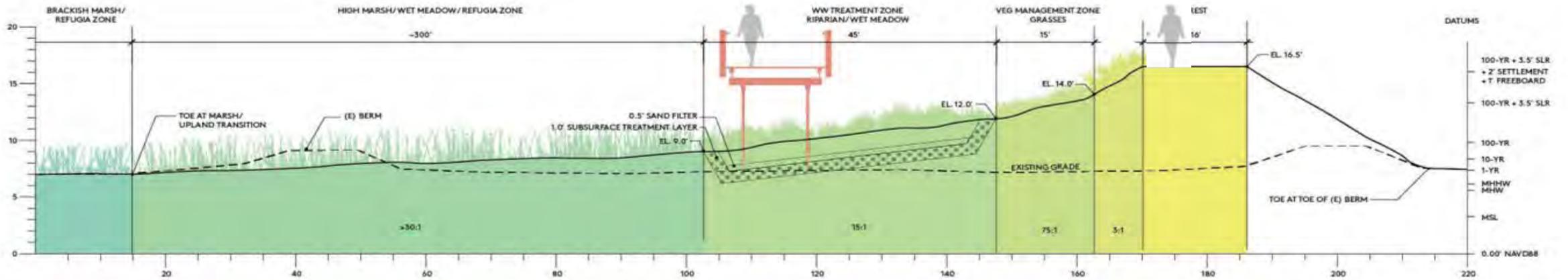


FIGURE 5

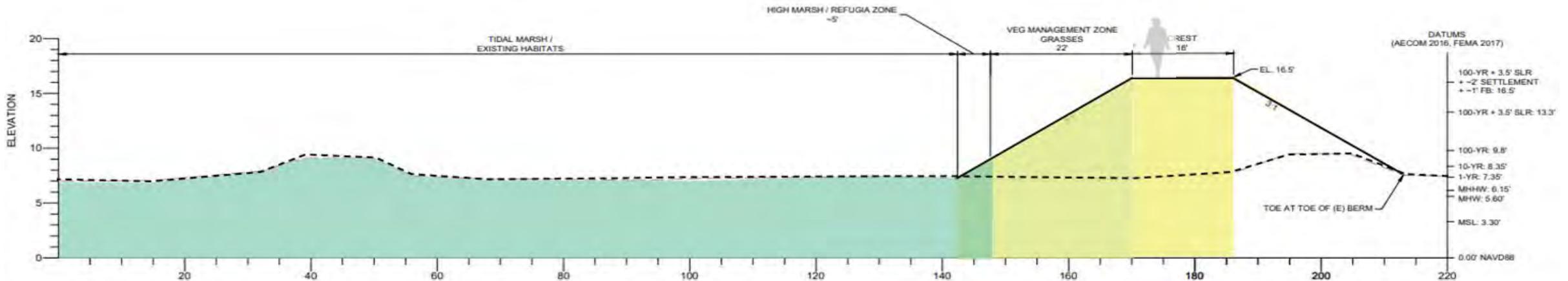
Preliminary
Draft,

Living Level Sectional Profiles at WCW*

*vert. exaggerated; human figures not to scale



Gentle Sloped Habitat Levee (Larger Footprint)



Steep Sloped Flood Protection Levee/Structural Levee Core (Minimum Footprint)

Level Crest Design Elevation: 16.5ft NAVD (100yr coastal flood* + 3.5ft SLR**, +2ft Subsidence***, +1ft Freeboard)

* Present day 100-yr coastal flood elevation is ~10ft NAVD (FEMA FIS #06013CV001C, 2017)

** SLR Projection for High Emissions, Med/High Risk Aversion Scenario for the year 2070 (OPC 2018)

*** Assumed value, geotech study will occur during future phase.



Funding Opportunities

WCW Living Levee Design & Implementation

Granting Agency/Program	Potential Scope	Co-applicants + other partners	Target budget	Deadline/Next Steps
California Dept. of Fish & Wildlife	Complete Design & Permitting for the WCW Living Levee	No co-applicant needed, but letters of support from County, Flood Control, SFEP, etc.	\$1.5 million to \$2 million	Rolling deadline, at the end of each month until funds are fully dispersed (initial contact already made)
SFBRA, Phase II	Complete Design & Permitting for the WCW Living Levee	No co-applicant needed	\$1.5 million to \$2 million for design.	September timeframe
Coastal Conservancy	Complete Design & Permitting for the WCW Living Levee	No co-applicant needed	\$1.5 million to \$2 million for design.	Rolling deadline (initial contact already made)
U.S. Army Corps of Engineers	Complete Design & Permitting & Construction for the WCW Living Levee	No co-applicant needed	\$1.5 million to \$2 million for design, \$40+ million left for construction	Add project to Army Corps database, lobby Rep. Garamendi, work with SF district to authorization

Funding Opportunities

Collaborative Shoreline Resilience Plan

Granting Agency/Program	Potential Scope	Co-applicants + other partners	Target budget	Deadline/Next Steps
Office of Planning & Research, Adaptation Planning	Fund conversations with county, community leaders, city on governance models and capacity building	The Watershed Project as co-applicant. Partners: Greenbelt Alliance, County, East Bay Parks, City of Richmond	\$300k to \$400k (To be confirmed, \$650K is max ask)	March 31. Ongoing meetings and collaboration with our partners in the coming weeks
San Francisco Bay Restoration Authority Community Grants	Continued community engagement. Final scope would need to be determined.	The Watershed Project would need to be the applicant. Funds are focused on NGO/CBO applicants	\$200K max	Rolling deadline (confirm with Liz J.)
Coastal Conservancy	Continued community engagement. Final scope would need to be determined.	Co-applicant with Watershed Project?	\$300k to \$400k (To be confirmed.)	Rolling deadline (initial contact already made)
EPA				

Looking Ahead...

