



AGENDA

CONTRA COSTA COUNTY Contra Costa Resilient Shoreline Ad Hoc Committee

Supervisor John Gioia, District 1, Chair
Supervisor Diane Burgis, District 3, Vice Chair

Wednesday, April 17, 2024

10:00 AM

**District 1 Office: 11780 San Pablo Ave.
Suite D, El Cerrito, CA 94530 |**

**District 3 Office: 3361 Walnut Blvd.
Suite 140, Brentwood, CA 94513**

ZOOM LINK

<https://ccccounty-us.zoom.us/j/87170445129>

| Dial: 888 278 0254 |

CONFERENCE CODE: 198675

The public may attend this meeting in person at either above locations and/or remotely via call-in or ZOOM.

AGENDA ITEMS

Items may be taken out of order based on the business of the day and preference of the Committee.

1. INTRODUCTIONS

Call to order and roll call.

2. PUBLIC COMMENT

Comments on any item under the jurisdiction of the Committee and not on this agenda (speakers may be limited to two (2) minutes).

- 3. RECEIVE and APPROVE the Record of Action for the February 21, 2024 Contra Costa Resilient Shoreline Ad Hoc Committee Meeting. [24-1118](#)**

Attachments: [Meeting Minutes 02.21.24](#)
[North Richmond CSAP & Living Levee - CCC SLR Ad Hoc](#)
[2 21 2024](#)
[RSAP ContraCostaCounty Presentation 2.21.2024 Final](#)
[2024_02_21 W E County ART Studies Summary](#)

-
4. RECEIVE Presentation on "Delta Adapts" a draft adaptation plan being developed by the Delta Stewardship Council. [24-1119](#)

Attachments: [DSC Delta Adapts Presentation](#)

5. RECEIVE report on Staff Activities that support the Contra Costa Resilient Shoreline Ad Hoc Committee. [24-1120](#)

Attachments: [Staff Activities](#)

ADJOURN until the next Contra Costa Resilient Shoreline Ad Hoc Committee meeting to be held on May 9, 2024, at 10:00am.

GENERAL INFORMATION

This meeting provides reasonable accommodations for persons with disabilities planning to attend a the meetings. Contact the staff person listed below at least 72 hours before the meeting. Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the County to a majority of members of the Committee less than 96 hours prior to that meeting are available for public inspection at 1025 Escobar St., 4th Floor, Martinez, during normal business hours. Staff reports related to items on the agenda are also accessible on line at www.co.contra-costa.ca.us.

HOW TO PROVIDE PUBLIC COMMENT

Persons who wish to address the Committee during public comment on matters within the jurisdiction of the Committee that are not on the agenda, or who wish to comment with respect to an item on the agenda, may comment in person, via Zoom, or via call-in. Those participating in person should offer comments when invited by the Committee Chair. Those participating via Zoom should indicate they wish to speak by using the "raise your hand" feature in the Zoom app. Those calling in should indicate they wish to speak by pushing *9 on their phones.

Public comments generally will be limited to two (2) minutes per speaker. In the interest of facilitating the business of the Board Committee, the total amount of time that a member of the public may use in addressing the Board Committee on all agenda items is 10 minutes. Your patience is appreciated.

Public comments may also be submitted to Committee staff before the meeting by email or by voicemail. Comments submitted by email or voicemail will be included in the record of the meeting but will not be read or played aloud during the meeting.

For Additional Information Contact:

Ryan Hernandez
(925)655-2919



CONTRA COSTA COUNTY

1025 ESCOBAR STREET
MARTINEZ, CA 94553

Staff Report

File #: 24-1118

Agenda Date: 4/17/2024

Agenda #: 3.

CONTRA COSTA RESILIENT SHORELINE AD HOC COMMITTEE

Meeting Date: April 17, 2024

Subject: Record of Action from February 21, 2024, Meeting

Submitted For: John Kopchik | DEPARTMENT OF CONSERVATION & DEVELOPMENT DIRECTOR

Department: DEPARTMENT OF CONSERVATION & DEVELOPMENT

Presenter: Ryan Hernandez | DEPARTMENT OF CONSERVATION & DEVELOPMENT

Contact: Ryan Hernandez (925)655-2919

Referral History:

County Ordinance requires that each County body keep a record of its meetings. Though the record need not be verbatim, it must accurately reflect the agenda and the decisions made in the meeting.

Referral Update:

Attached is the Record of Action for the February 21, 2024, Contra Costa Resilient Shoreline Ad Hoc Committee meeting.

Recommendation(s)/Next Step(s):

RECEIVE and APPROVE the Record of Action for the February 21, 2024, Committee Meeting with any necessary corrections.

Fiscal Impact (if any):

N/A



Meeting Minutes - Draft

CONTRA COSTA COUNTY Contra Costa Resilient Shoreline Ad Hoc Committee

Supervisor John Gioia, District 1, Chair
Supervisor Diane Burgis, District 3, Vice Chair

Wednesday, February 21, 2024

2:00 PM

District 1 Office:
11780 San Pablo Avenue, Suite D
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District 3 Office:
3361 Walnut Blvd. Suite 140, Brentwood, CA
94513

ZOOM LINK

<https://cccouny-us.zoom.us/j/83333870249>

| Dial: 888-278-0254 |
ACCESS CODE: 841892

The public may attend this meeting in person at either above locations and/or remotely via call-in or ZOOM.

AGENDA ITEMS

Staff Present: Ryan Hernandez | CC Resilient Shoreline Ad Hoc Committee Staff

Attendees Present: Raquel Caicedo, Nicole Shimizu, Emily Groth, Graham Laird-Prentice, Mithun, Naama Raz-Yaseef, Jaclyn Mandoske, Dana Brechwald, Peter Meyers, John Kopchik, Michael Kent, Wade Finlinson, Sarah Duckler, Deanna Sereno, Aundi Mevoli, Paul Seger, Mariah Padilla, C Yote, Joe Neugebauer, Justin Lovell, Juliana González

Present John Gioia, and Diane Burgis

1. INTRODUCTIONS

Meeting called to order at 2:01:00PM PST.

The Committee ACCEPTED the nomination of Supervisor John Gioia to resume as the Resilient Shoreline Chair for the 2024 Calendar year.

The Committee ACCEPTED the nomination of Supervisor Diane Burgis to resume as the Resilient Shoreline Vice Chair for the 2024 Calendar year.

2. PUBLIC COMMENT

No public comment.

3. RECEIVE and APPROVE the Record of Action for the October 12, 2023 Contra Costa

Resilient Shoreline Ad Hoc Committee Meeting.

Attachments: [2023-10-12 CC Resilient Shoreline Ad Hoc Committee Draft Minutes](#)
[2023_10_12 CCC Ad Hoc BCDC Presentation](#)
[2023_10_12 SLR Grants DCD Presentation](#)

The Committee unanimously ACCEPTED the February 21, 2024, Record of Action.

No public comment.

4. RECEIVE Presentation on the North Richmond Living Levee Project

Attachments: [North Richmond CSAP & Living Levee - CCC SLR Ad Hoc 2_21_2024](#)

The Committee expressed gratitude for the collaborative effort and extensive planning invested in various projects, particularly highlighting the Resilient by Design initiative; adding emphasis to the health benefits and community pride associated with projects like trails, while raising concerns about the accuracy of climate change modeling and the adequacy of current infrastructure plans.

Staff provided updates on sea level rise modeling and mentioned the ongoing review of the Draft Ocean Protection Council guidance and discussed the design of the Lower Walnut Creek project to withstand sea level rise for the next 100 years, emphasizing the importance of long-term planning and adaptation.

The Committee commended the team's effort and encouraged continued collaboration and dedication to ongoing projects and stressed the importance of accurate climate change modeling and DIRECTED staff to ensure thorough review and consideration of future projections in infrastructure planning.

The Committee ACCEPTED the report and DIRECTED staff to monitor updates in sea level rise modeling and coordinating with relevant agencies to incorporate the latest guidance into ongoing projects, emphasizing the need for proactive planning to address long-term resilience while also considering cost-effectiveness.

PUBLIC COMMENTS include expressed gratitude for the collaborative efforts and highlighted the potential of multi-benefit projects along the shorelines of Contra Costa County, emphasizing the importance of considering public access and employment opportunities in shoreline adaptation projects. Additionally, stressing the need to connect these projects to immediate community benefits as well as future stewardship and employment opportunities and noted the challenges of integrating various funding sources and emphasized the importance of collaboration with organizations such as nonprofits and local community colleges to create a workforce capable of maintaining and expanding these spaces; highlighted the significance of making projects relevant to the communities being served to enhance community engagement.

Side DISCUSSIONS provided by the Committee include the need for a dedicated section on the county website regarding sea level rise. The Committee proposed the creation of a webpage where presentations and related materials on sea level rise can be posted for public access. The Committee recognized the importance of transparency and public

engagement, suggesting to have separate pages for the Resilient Shoreline Ad Hoc Committee and sea level rise information.

The Committee expressed enthusiasm for the idea of creating a central hub for information on sea level rise in Contra Costa County.

The Committee DIRECTED staff to gather suggestions for website content, to explore the technical feasibility and resources required to create, implement, and maintain the proposed website pages (i.e. the "What's going on in Contra Costa" webpage, the Resilient Shoreline Ad Hoc Committee page, and dedicated page for sea level rise information), while ensuring communication with relevant stakeholders and the public regarding the availability of these website resources.

5. RECEIVE Presentation on the Regional Shoreline Adaptation Plan's "One Bay Vision".

Attachments: [RSAP_ContraCostaCounty_Presentation_2.21.2024_Final](#)

The Committee expressed the importance of ensuring community preparedness, avoiding redundancy in efforts and highlighted the unique relationships with water and sea level rise, and announced plans for a future presentation on long-term planning. They proposed the formation of a larger elected officials work group in Contra Costa County to focus on shoreline issues, involving representatives from each shoreline city and emphasized the need for action by cities along the bay and suggested a Contra Costa-specific group to inform and coordinate efforts.

The Committee agreed with the proposal and noted the varying levels of engagement from different cities in addressing sea level rise and suggested bringing in city managers and staff from shoreline cities to actively participate in the work group.

Staff expressed support for the idea and confirmed ongoing efforts to connect with city managers and public works directors in shoreline cities.

The Committee suggested including representatives from unincorporated areas, such as the MAC, in the work group, recognizing the significance of waterfront areas in those regions, echoing the importance of involving both incorporated and unincorporated areas in the work group, emphasizing potential partnership opportunities to support communities with limited capacity.

PUBLIC COMMENTS include expressed appreciation for the presentation and highlighted the importance of funding and stakeholder engagement in project success and inquired about how the presented work could support projects like the North Richmond Living Levee Project, in securing funding and addressing polluted areas.

Jaclyn Mandoske from BCDC addressed the concerns regarding funding, explaining the various funding sources available and the eligibility criteria for accessing funds and highlighted the role of BCDC guidelines in determining eligibility for certain funding opportunities.

Dana Brechwald from BCDC added to the discussion on funding, emphasizing the need

for a regional funding structure and criteria to prioritize projects and minimize competition among cities and counties.

Jaclyn Mandoske also addressed the concern of enforcement, acknowledging the challenge and discussing BCDC's efforts to promote collaboration and partnership with other agencies to address issues of pollution and enforcement.

The Committee emphasized the importance of collaboration and partnership among cities and counties to maximize funding opportunities and project success. They discussed the regulatory authority of BCDC and the need for greater regional authority to address sea level rise issues effectively.

The Committee expressed support for extending BCDC's jurisdiction to address sea level rise issues.

The Committee ACCEPTED the report and DIRECTED staff to establish a Contra Costa-specific elected officials work group to address shoreline issues, conduct outreach to relevant stakeholders, coordinate efforts between cities and unincorporated areas, and explore partnership opportunities to support communities with limited capacity to address shoreline challenges.

6. RECEIVE Presentation on Adapting to Rising Tides Vulnerability Assessment in Contra Costa County.

Attachments: [2024_02_21_W_E County ART Studies Summary](#)

The Committee commended the presentation for its comprehensive approach and suggested posting all presentations, including maps, on the county's sea level rise website for public access.

Staff confirmed the availability of the maps from Dana's October twelfth presentation and agreed to post all presentations from the October and current meetings on the website.

The Committee emphasized the importance of visual aids like maps for public understanding and accessibility and

PUBLIC COMMENT included interest in whether BCDC provides assistance to non-jurisdictional shoreline areas.

Dana Brechwald from BCDC clarified BCDC's planning and regulatory functions, highlighting their engagement beyond regulatory boundaries in shoreline planning.

Staff acknowledged BCDC's support in the East County Adapting to Rising Tides study and expressed gratitude for their expertise.

The Committee ACCEPTED the report and DIRECTED staff to post all presentations, including maps, from both the current meeting and the October meeting on county's sea level rise website for public access.

7. RECEIVE report on Staff Activities that support the Contra Costa Resilient Shoreline.

Attachments: [2024_02_21 CC Resilient Shoreline Staff Report](#)

The Committee emphasized the need to form a public-private shoreline work group, similar to BCDC, involving various jurisdictions, public agencies, and private stakeholders.

Staff confirmed having a list of stakeholders to engage with and proposed considering different outreach methods, including in-person forums or letters.

The Committee ACCEPTED the report and DIRECTED staff to form a public-private shoreline work group, akin to BCDC, to engage various stakeholders, including jurisdictions, public agencies, and private entities, in efforts to enhance shoreline resilience.

No public comment.

8. ADJOURN until the next Contra Costa Resilient Shoreline Ad Hoc Committee meeting to be held on March 20, 2024, at 10:00am.

Meeting ADJOURNED at 3:58:58PM PST.

Contra Costa County SLR Ad Hoc Committee February 21st, 2024

North Richmond Living Levee & Collaborative Shoreline Adaptation Plan



MITHŪN



NHA | ADVISORS
Financial & Policy Strategies.
Delivered.



**North Richmond
Area Community
Leaders**



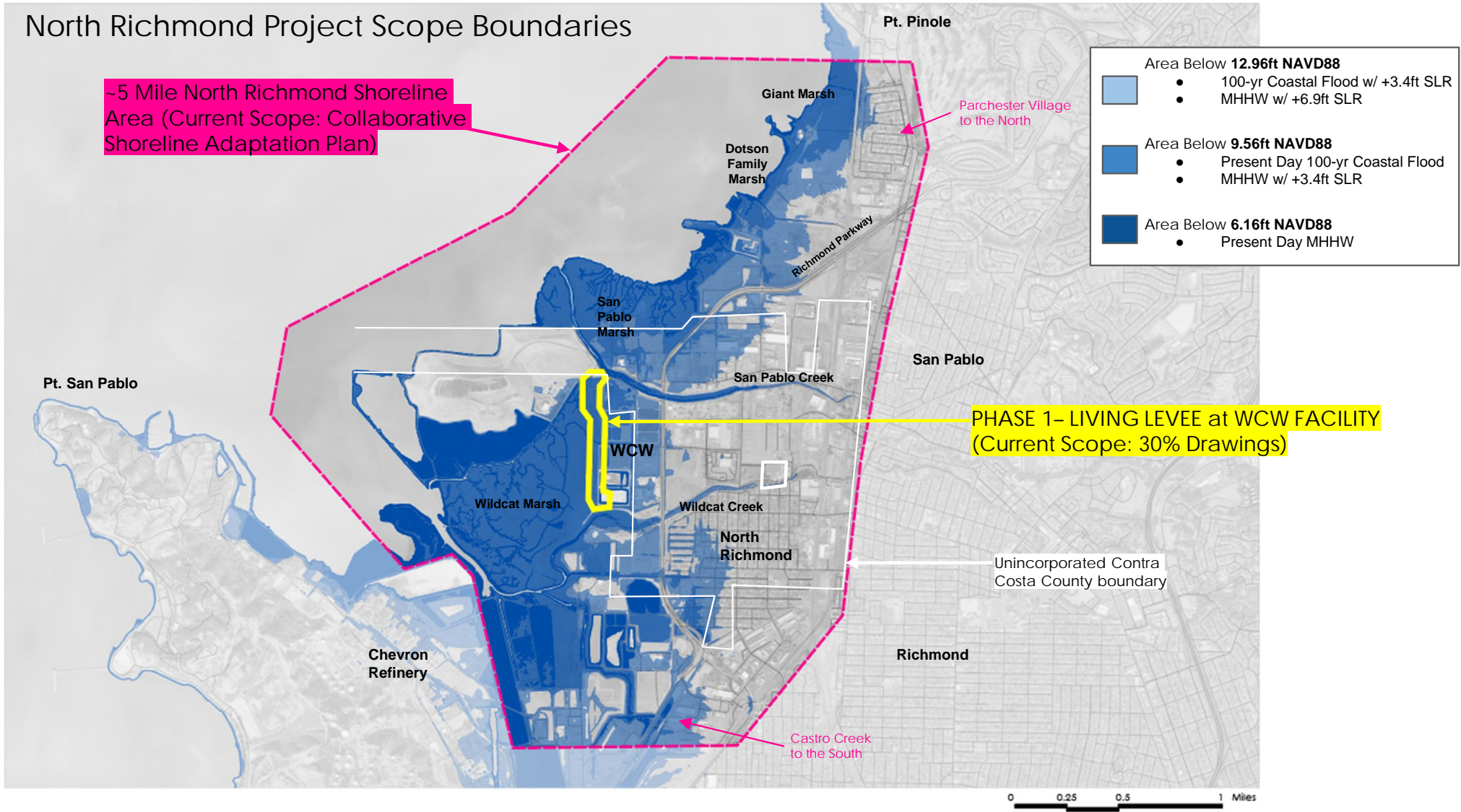
Project Summary & Updates (15 mins)

- **Project Scope and Goals: flood mitigation for critical infrastructure, habitat protection, public access;** (Graham Laird Prentice, Project Designer - Mithun)
- **Project History and Regional Collaboration** (invite Supervisor Gioia to speak)
- **Community Engagement: outreach, participatory model, workforce development, tribal engagement** (Naama Raz-Yaseef, Community Engagement Manager - The Watershed Project)
- **Project Design: multi-benefits approach, trail enhancement, community co-design**
- **Phase 1 Living Levee at West County Wastewater** (Graham Laird Prentice, Project Designer - Mithun)
- **Outlook Going Forward**

Discussion / Q&A (5 mins)

North Richmond Project Scope Boundaries

~5 Mile North Richmond Shoreline Area (Current Scope: Collaborative Shoreline Adaptation Plan)

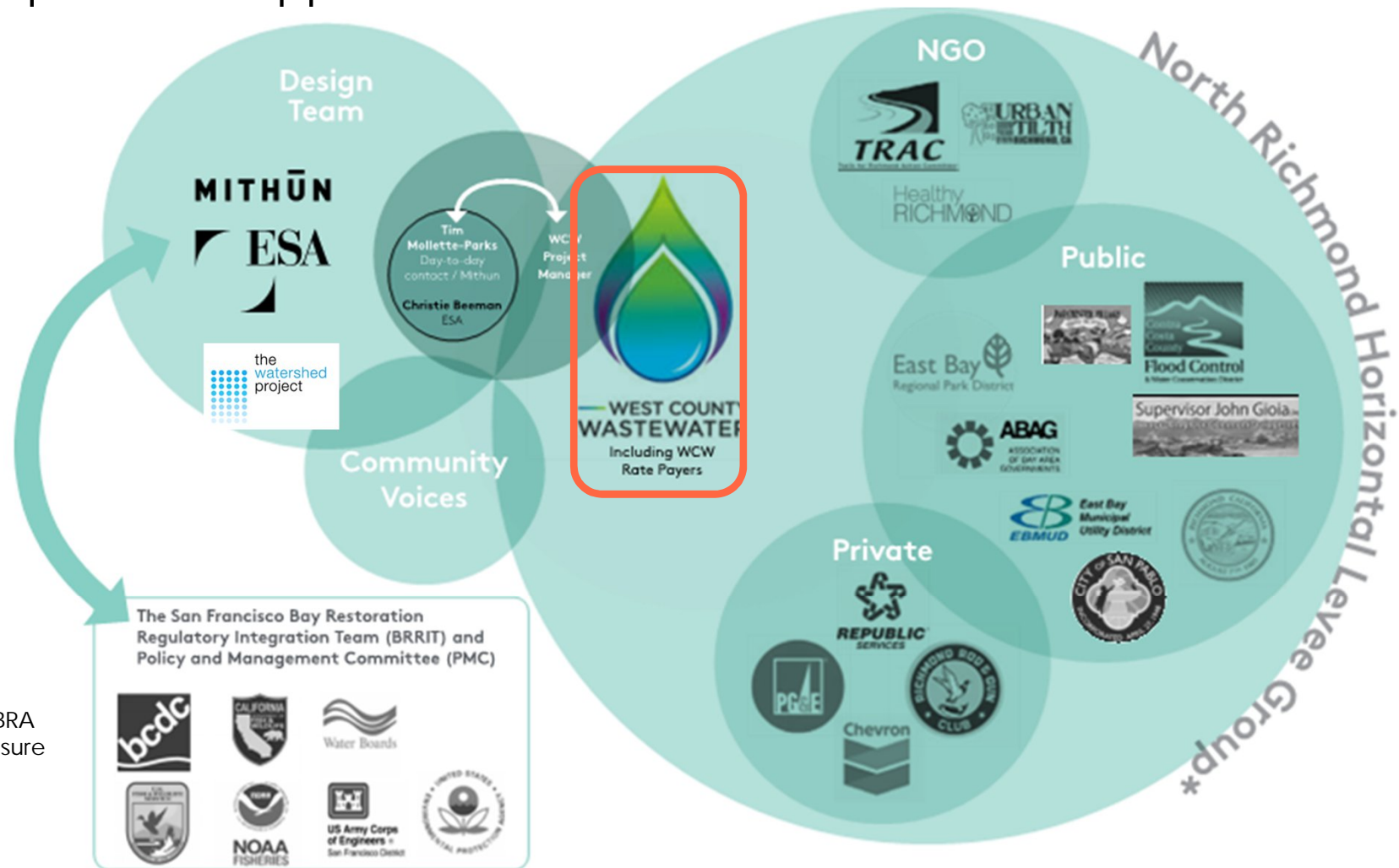


North Richmond Levee Working Group



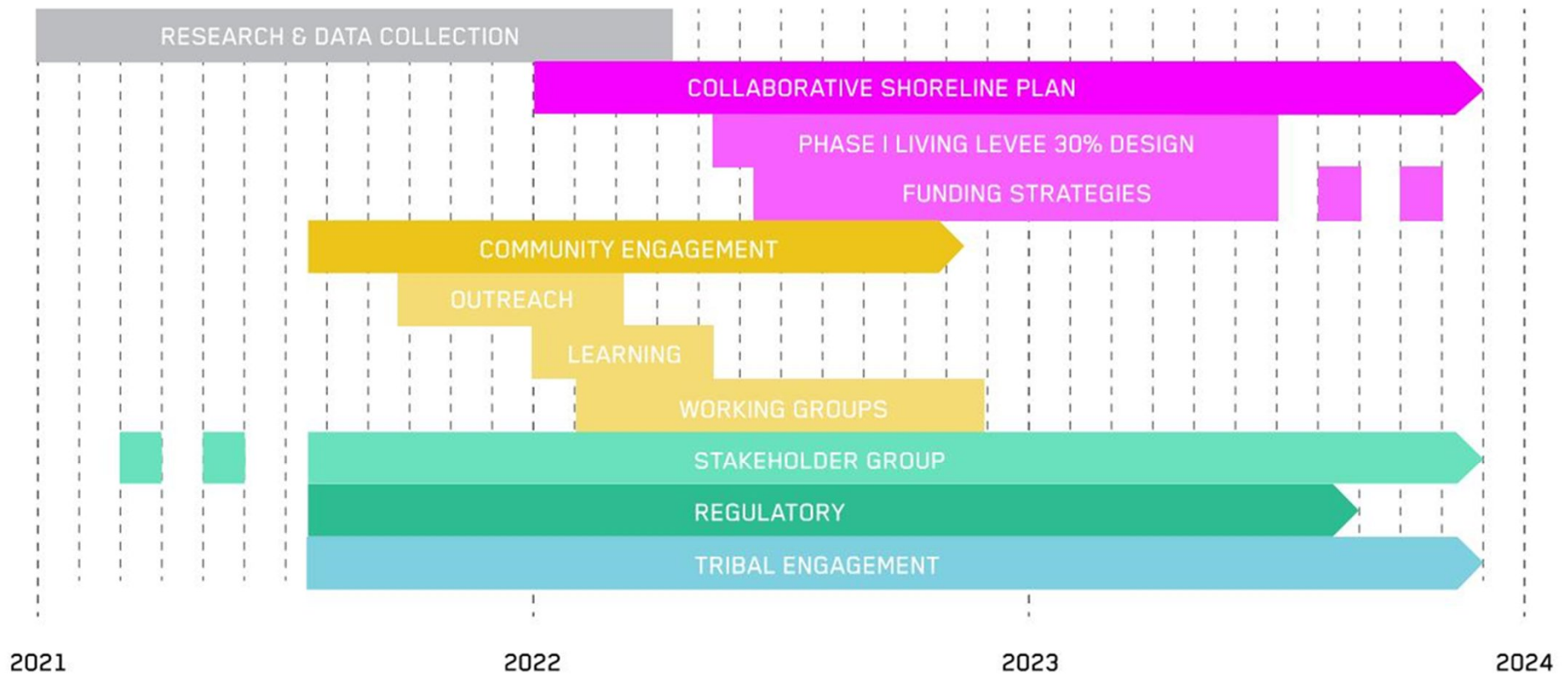
- Regular Meetings since September 2019, with lead from San Francisco Estuary Partnership & West County Wastewater
- Position Nature-based Adaptations for external funding opportunities
- Provide information, support to WCW Project Management Team throughout conceptual design process for a Prototype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

Partnerships-based Approach



*Funded by SFBRA grant with Measure AA \$

Frameworks For Community Participation & Co-Design



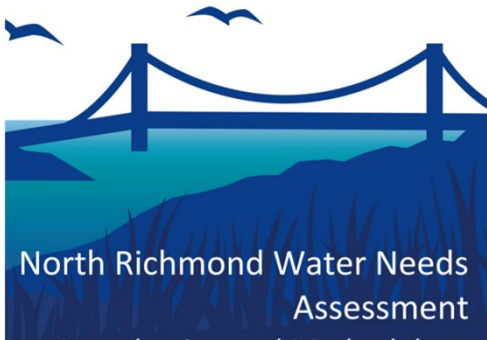
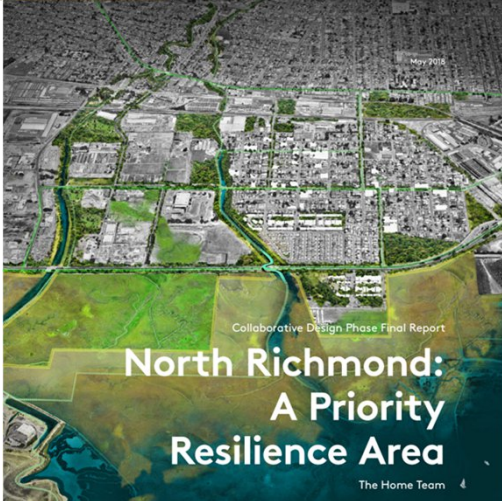
Building on the Legacy of Organizing, Planning & Stewardship in North Richmond



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.



North Richmond Quality of Life Plan



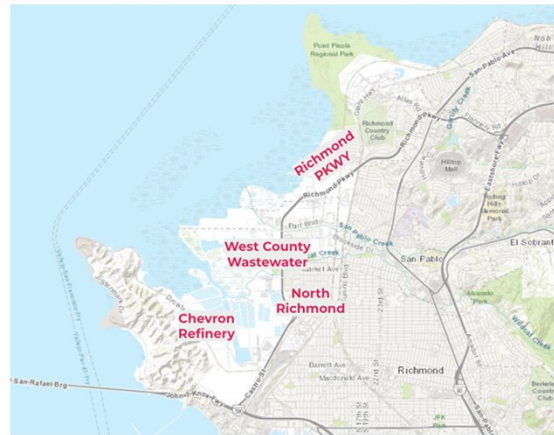
Community Engagement Frameworks

Multi-Benefit Sea Level Rise Adaptation on the North Richmond Shoreline has begun long before and will last for long after the design + construction phase

- Building on years of work and relationship building
- Tribal Engagement
- Surveys
- Educational Workshops
- Design Workshops
- Future Local Workforce Development Discussion



NORTH RICHMOND



COMMUNITY
ENGAGEMENT

Outreach

Education

Gather community voices

COMMUNITY
ENGAGEMENT

Outreach --> Recruitment

COMMUNITY
DECISION-
MAKING

Education --> Workgroups

Gather community voices -->
Community-led research & design

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!!!

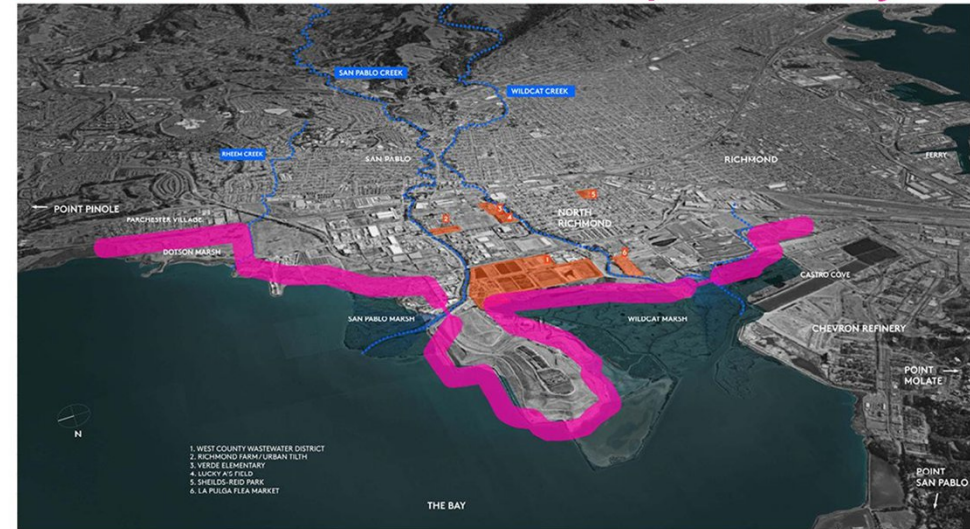
Realizaremos un webinar para proporcionar más información y responder cualquier pregunta el **lunes 24 de enero de 6 a 7 pm.**

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).





20+ community members

Regular meetings (paid)

Learning Academy:

- Site Visits
- Collaborative learnings

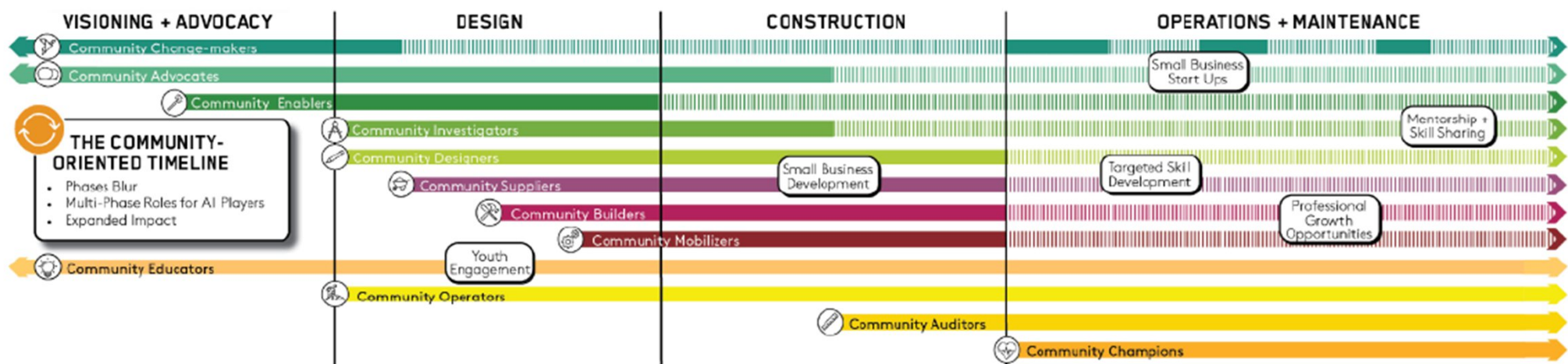
3 Workgroups



WORKGROUP 1:

ENVISIONING DESIGN APPROACHES

Explore, evaluate, and design equitable technical solutions for sea level rise.



WORKGROUP 2:

SUSTAINABILITY AND GROWTH

Thinking beyond construction to community stabilization and wealth-building

Identify mutual benefits and development opportunities (employment, housing, education)

WORKGROUP 3:

COMMUNITY SURVEY



Learned the theory of Monitoring and Evaluation



Decided on focus – Community Priorities and Preferences



Community leaders decided on methodology – Focus Group Discussions (FGD)



Co-designed tools



Community leaders selected Sample



Community leaders facilitated FGDs

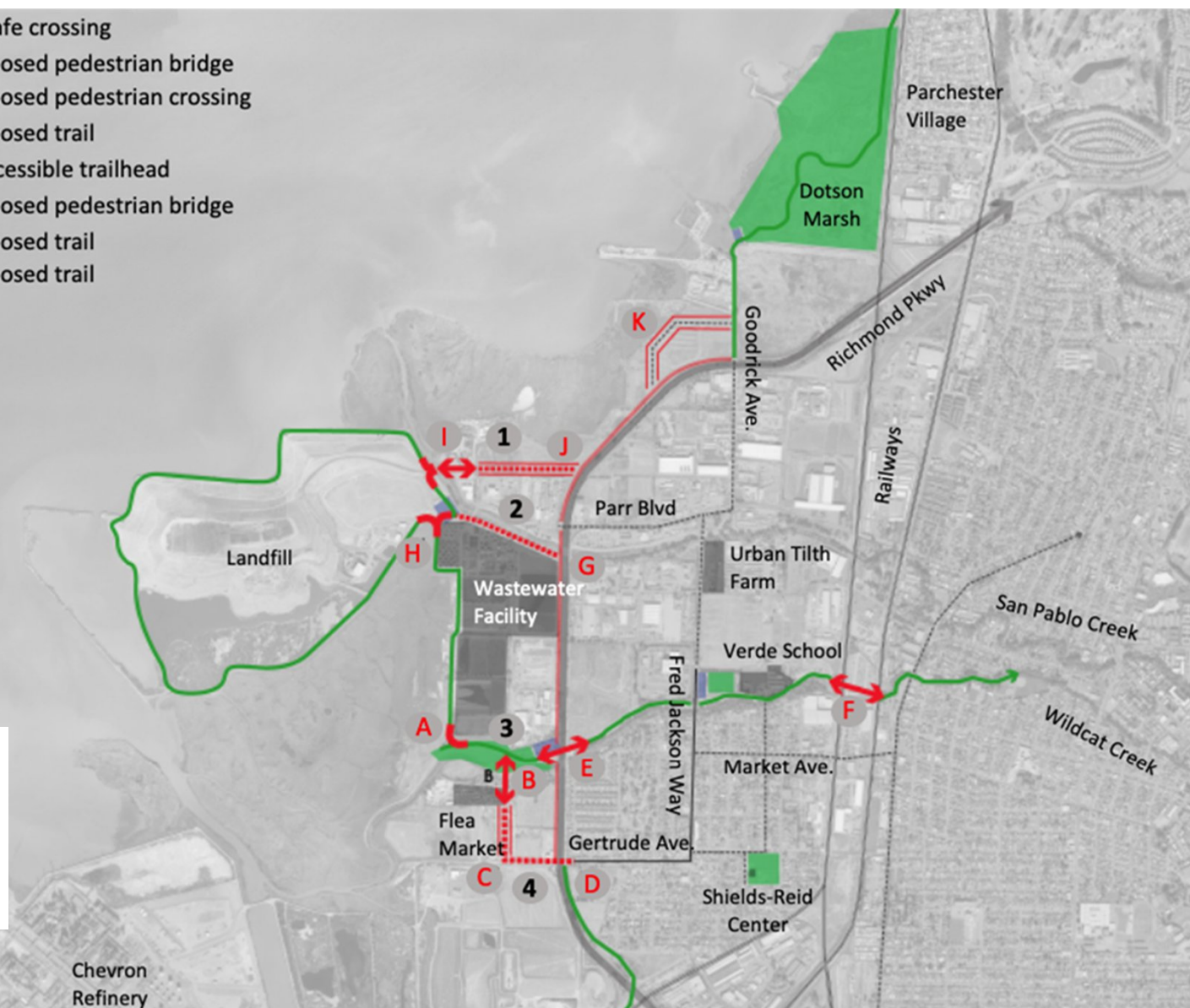
COMMUNITY SURVEY

- Do you currently use the shoreline today? If yes, where, and how?
- What type of services or activities would you like to see more of?

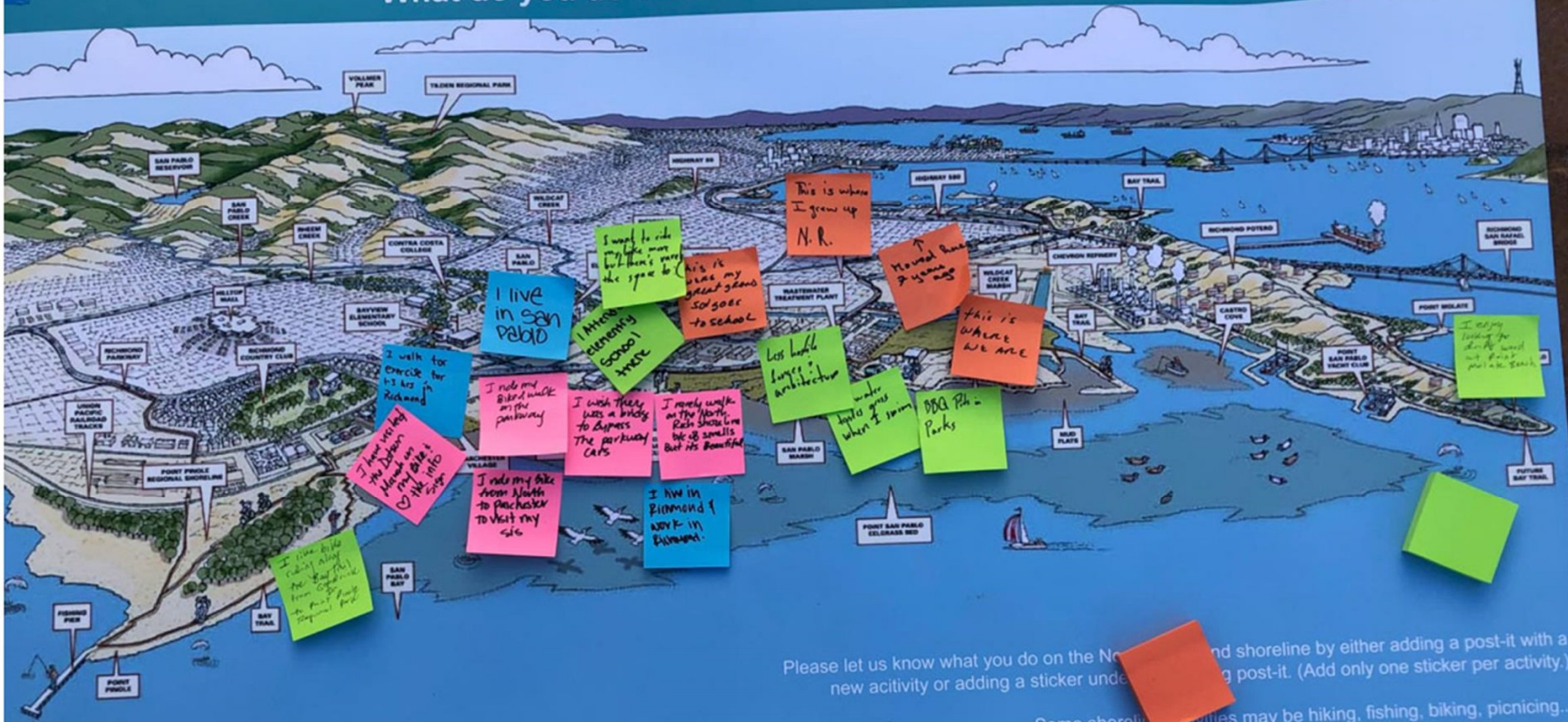
- Boardwalk H/M/L/N _____
- Hiking trails H/M/L/N _____
- Biking trails H/M/L/N _____
- Interpretive signage on the history and nature of the area H/M/L/N _____
- Observation tower to see the Bay H/M/L/N _____
- Kayak/boat launch H/M/L/N _____
- Exercising opportunities/park H/M/L/N _____
- Restored wetland H/M/L/N _____
- Park for toddlers and small children H/M/L/N _____
- Activities for older children H/M/L/N _____
- Restaurants/food shacks H/M/L/N _____
- Community center: H/M/L/N _____
 - Art and culture H/M/L/N _____
 - Education H/M/L/N _____
 - Ecology and climate H/M/L/N _____
 - Community development H/M/L/N _____
- Other, specify _____ H/M/L/N _____

- | | | | |
|--|--------------------|----------|------------------------------|
| | Bike lane | D | Unsafe crossing |
| | Planned trail | E | Proposed pedestrian bridge |
| | Needs improvement: | F | Proposed pedestrian crossing |
| | Trail | G | Proposed trail |
| | Proposed trail | H | Inaccessible trailhead |
| | Easement required | I | Proposed pedestrian bridge |
| | Access gap | J | Proposed trail |
| | Proposed bridge | K | Proposed trail |

ACCESS (PREFERENCES AND PRIORITIES)



What do you do on the North Richmond Shoreline?



Some shoreline activities may be hiking, fishing, biking, picnicing...

Tribal Engagement



HOME ABOUT PROGRAMS EVENTS GET INVOLVED NEWSLETTER [DONATE](#)

TRIBAL STORIES FROM THE COAST AND WATERSHEDS OF NORTH RICHMOND, CALIFORNIA



Welcome to the showcase of the Confederated Villages of Lisjan Coastal Stories, created by The Watershed Project as part of the North Richmond Shoreline Adaptation Project.



- Working with the team to develop concept designs for one or more site installation(s) to honor sites of cultural concern within the concept study area
- Building an indigenous storytelling website
- Two site visits with members of the Confederated Villages of Lisjan (Ohlone)
- Zoom meetings and discussions to arrive at shared understanding of role as cultural advisors on the project
- Agreement to provide feedback and help develop interpretive material, including interviews with tribal members



Education and Interpretation

The Past



In front of you is the North Richmond shoreline, on the San Francisco Bay. This tidal wetland evolved over thousands of years and is well-adapted to changing water levels: the daily high and low tides, and the seasonal slugs floods from Wildcat Creek that flows from the Berkeley hills into the Bay at this location.

We learn from this ecosystem how to cope with current risks such as sea level rise and pollution. For example, the dense vegetation that this habitat supports enriches the soil with organic matter, and that increases water infiltration, reducing floods. The gently sloping topography reduces wave energy that can be damaging to the shoreline. Wetland vegetation such as marsh grasses and reeds have deep root systems that anchor the soil, so it is less erodible even under constantly moving water. These plants extract toxins from the soil and the air, making the ecosystem even more habitable for us.



The tidal marshes are an important feeding and nesting area for birds such as the clapper rail, salt marsh harvest mouse, and the California gull. The eelgrass beds underneath the water provided habitat for species such as Dungeness crab, shore perch, and anchovy.



Wetlands slow down river flows. Sediments carried by the creek are released in this flat area, and over time, accumulation of creek sediments and the wetland's organic material (dead plant material) increases the height of the wetland. This way, the wetland can keep pace with rising sea levels to stay above the water. As sea level rises, wetlands can also migrate landward, converting city infilled areas to marshes.

The Present



People lived and used this shoreline for thousands of years. In the Chocheño language of the Lijian-Ojilone people, this area is named 'Shichian' land. Tribal members that live amongst us share stories of how their ancestors livelihood relied on fish and seafood from the Bay, and seeds, roots and berries from the surrounding hills and valleys. They used hide reed boats to travel along the Bay's waterways. They had a deep spiritual connection to the land and lived in harmony with the environment. Today, the Lijian-Ojilone communities are working to renaissance the land and revitalize their culture, knowledge, and native languages.



In the 20th and 21st centuries, this shoreline went through heavy industrialization, particularly during and after World War II. The area became a hub for oil refining and chemical manufacturing, including General Chemical Company, Kaiser Shipyard, Ford Motor Assembly Plant, the Richmond Steel Mill, the Giant Atlas Pyrolysis Company (manufacturing explosives), and the Chevron Refinery which still dominates the shoreline today.



The industry brought jobs and economic growth to the region, attracting workers. Soon after, African Americans from the Southern US, Mexican Americans, and European immigrants made their home in the nearby North Richmond neighborhood. The community became a hub for music, with world-famous nightclubs and music venues, including the legendary Club Savoy, attracting top musicians from across the country. After this period of economic growth, residents faced challenges from pollution and environmental degradation and declining industry that led to social and economic inequality. Despite these challenges, the community has remained resilient and continued to thrive, with a rich



The Future



This low-lying wetland is expected to be significantly impacted by sea level rise in the coming decades. As sea level rises, more infrastructure will be at risk from coastal floods. This includes the West County Wastewater facility, the Richmond Parkway, some North Richmond homes, and the natural environment - the wetland and all its plants and animals.

Motivated by over two decades of environmental and community activism, groups are taking shape for a solution to sea level rise for the North Richmond Shoreline. By constructing a Living Ledge - a low-lying, broad structure built parallel to the shoreline, the shoreline will be more protected from coastal flooding and wave erosion.



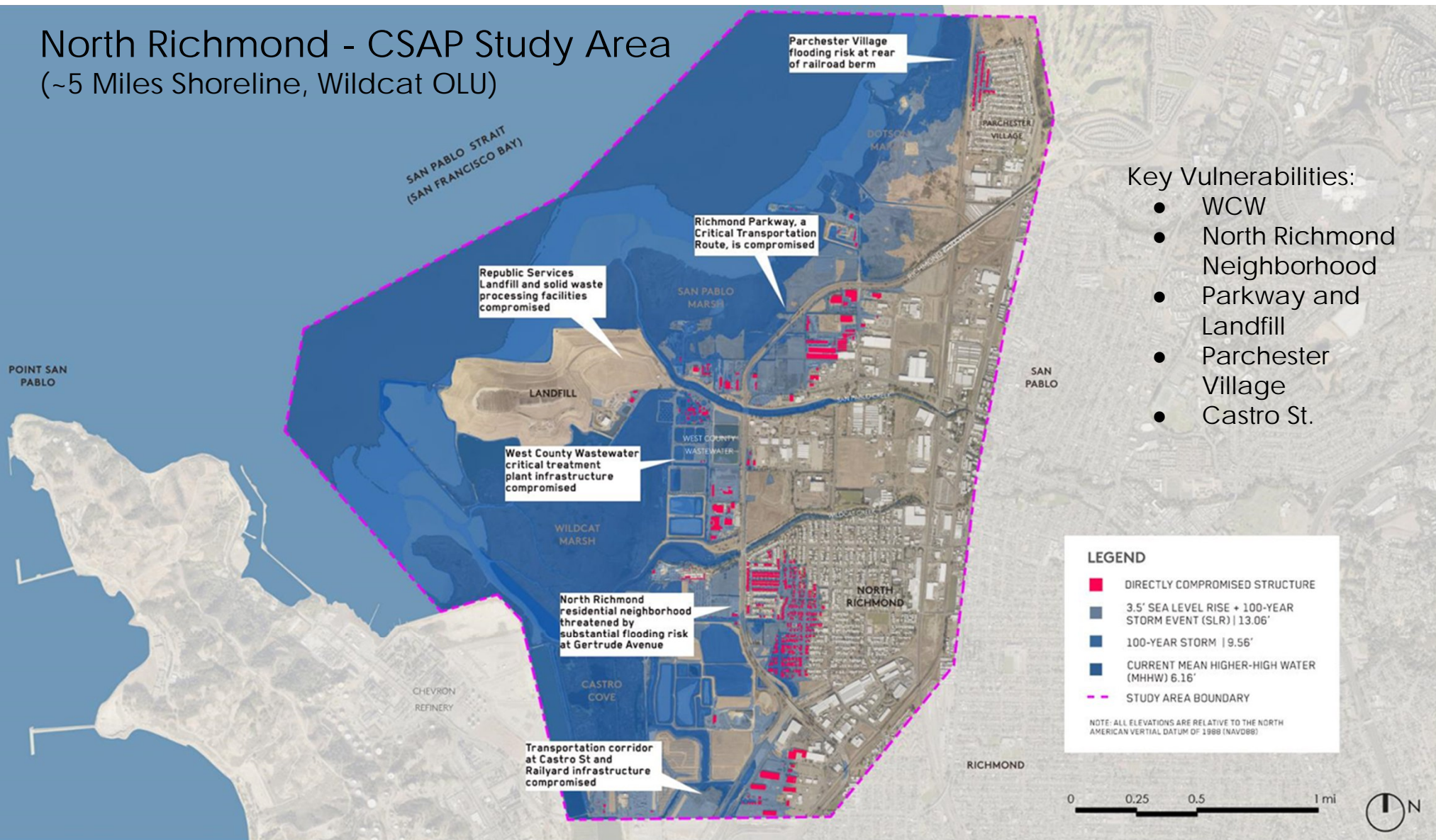
The structure is designed to blend with the surrounding landscape and mimic the natural processes of coastal protection, creating a 'Nature-based Solution' that uses the benefits and services provided by the natural ecosystems and processes.



The North Richmond Shoreline Adaptation project will provide opportunities for the neighboring communities to connect with nature—creating walking and biking trails, building small parks and play structures, and improving access to this beautiful area. The design of this project was heavily influenced by the work with community partners that identified community needs and wants.

This project is currently in its planning stages, and if granted funding, implementation will start in 2025.

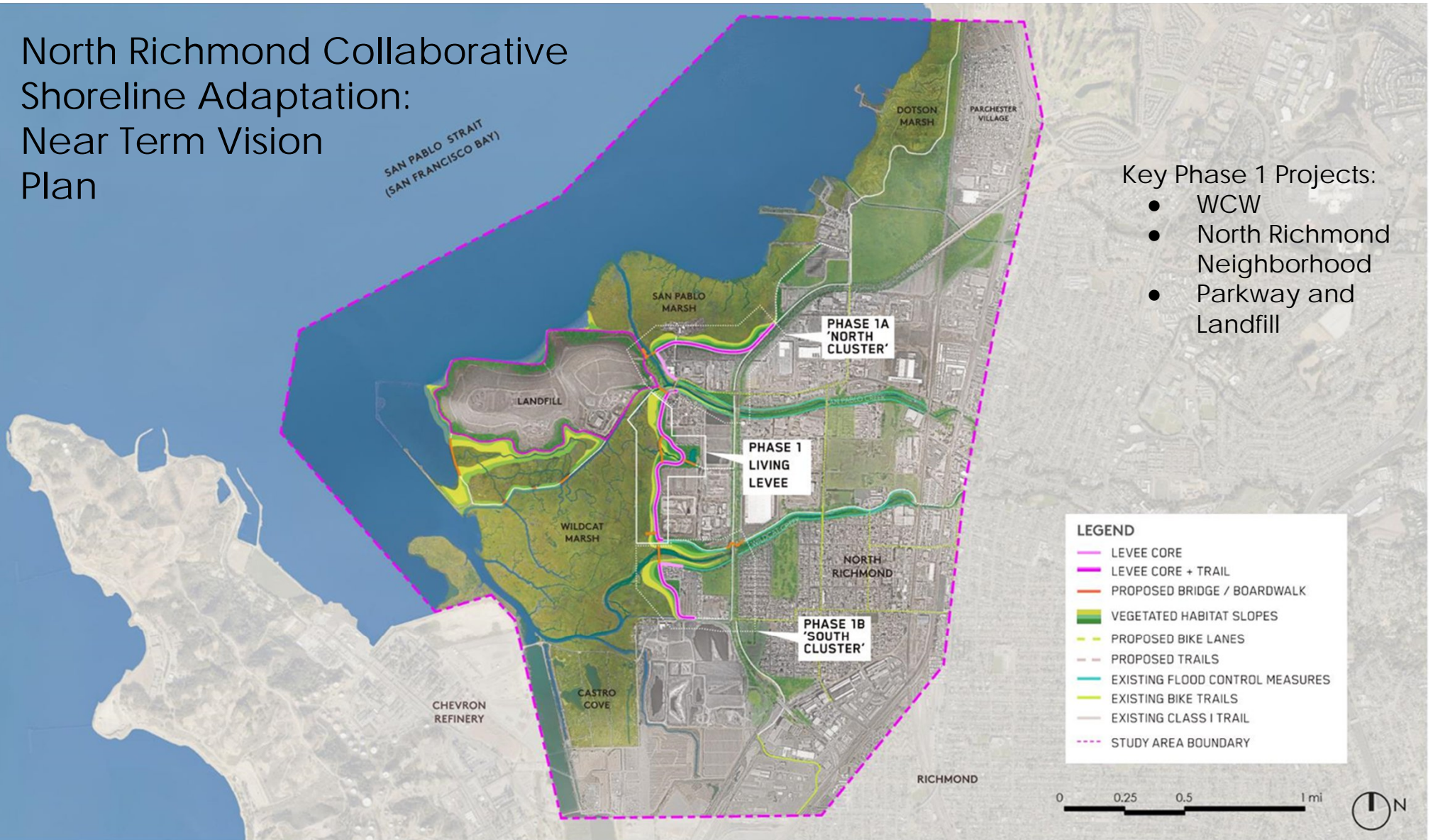
North Richmond - CSAP Study Area (~5 Miles Shoreline, Wildcat OLU)



Key Vulnerabilities:

- WCW
- North Richmond Neighborhood
- Parkway and Landfill
- Parchester Village
- Castro St.

North Richmond Collaborative Shoreline Adaptation: Near Term Vision Plan



- Key Phase 1 Projects:
- WCW
 - North Richmond Neighborhood
 - Parkway and Landfill

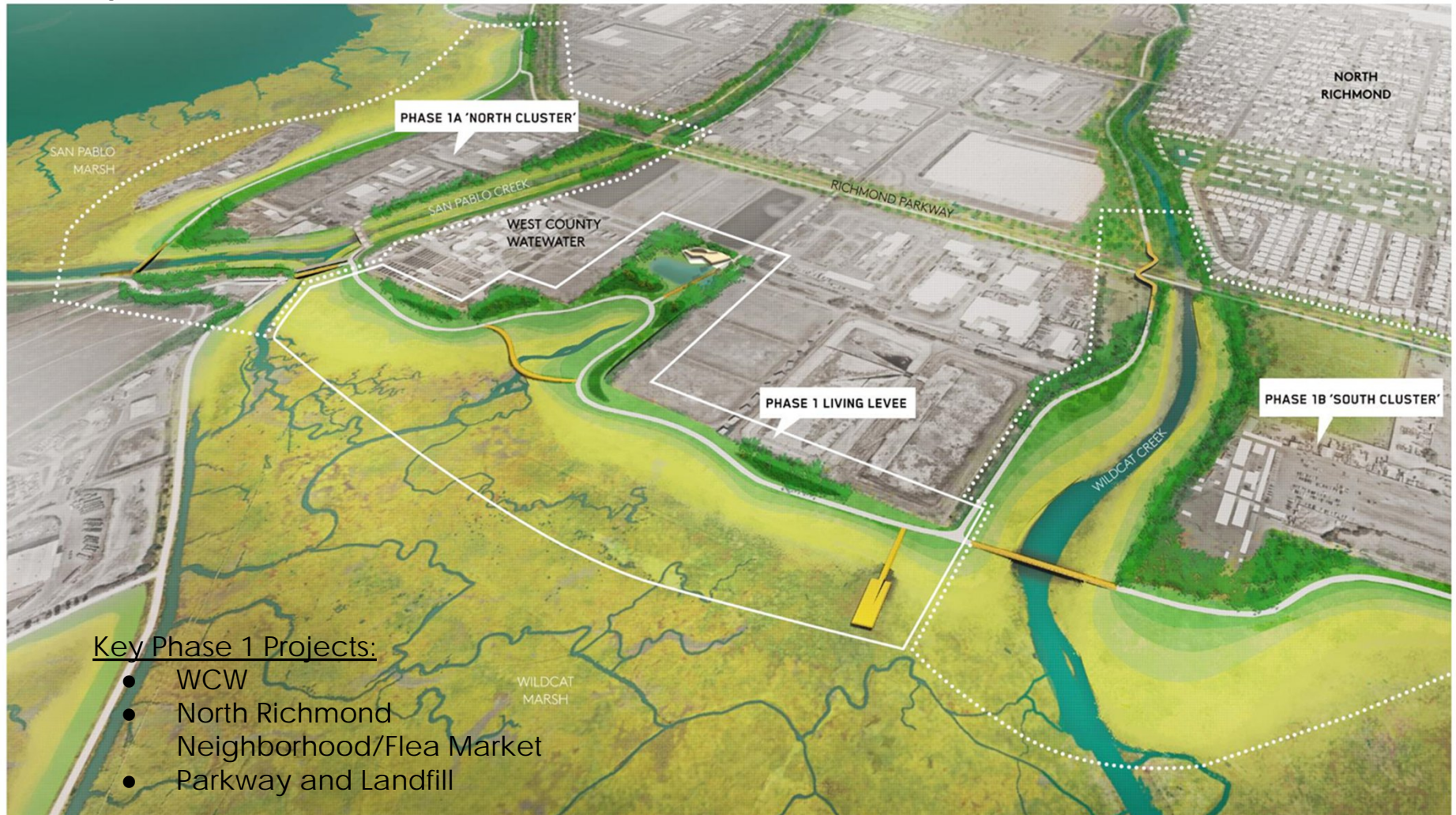
Near Term Vision: Phase 1 Living Levee at West County Wastewater

Multi-Benefit Adaptation Project to provide:

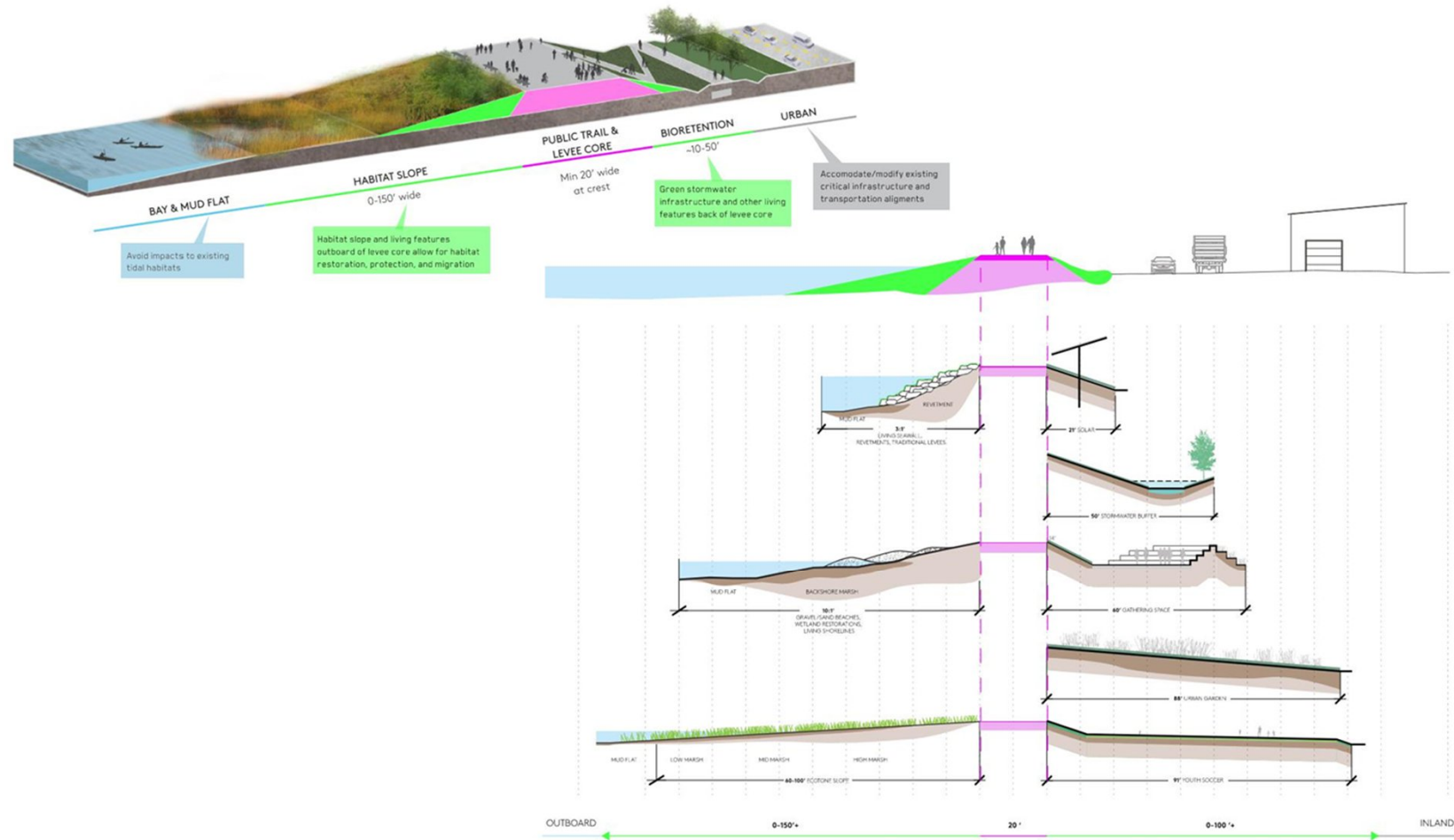
- Flood protection
- Habitat creation and migration
- Permanent, safe public access



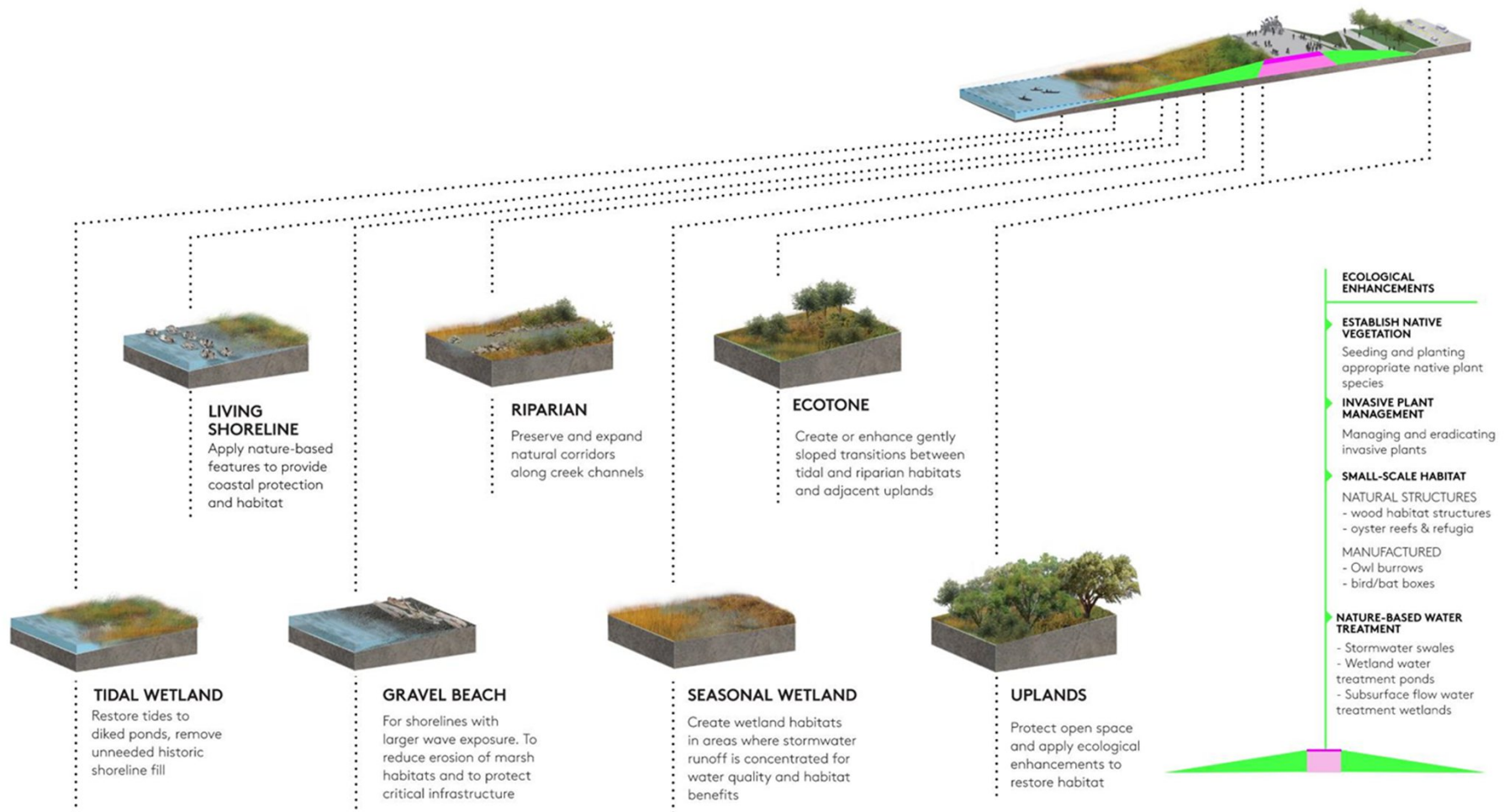
Summary of Near-Term Recommendations



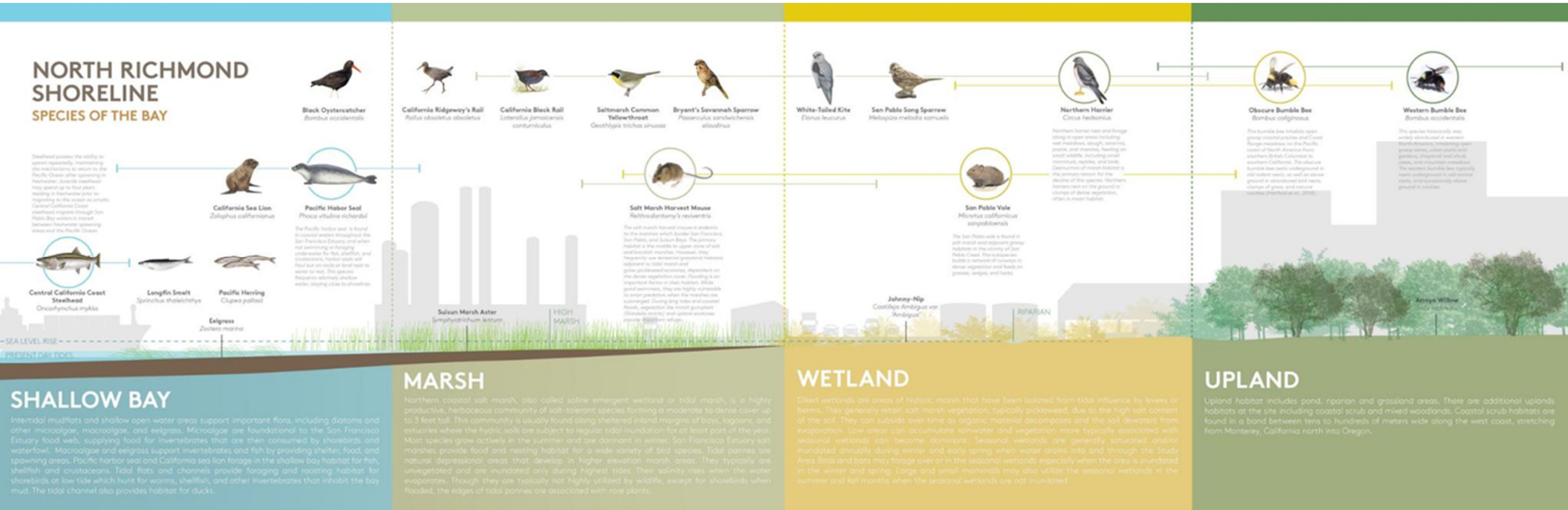
Living Levees: A Flexible Band



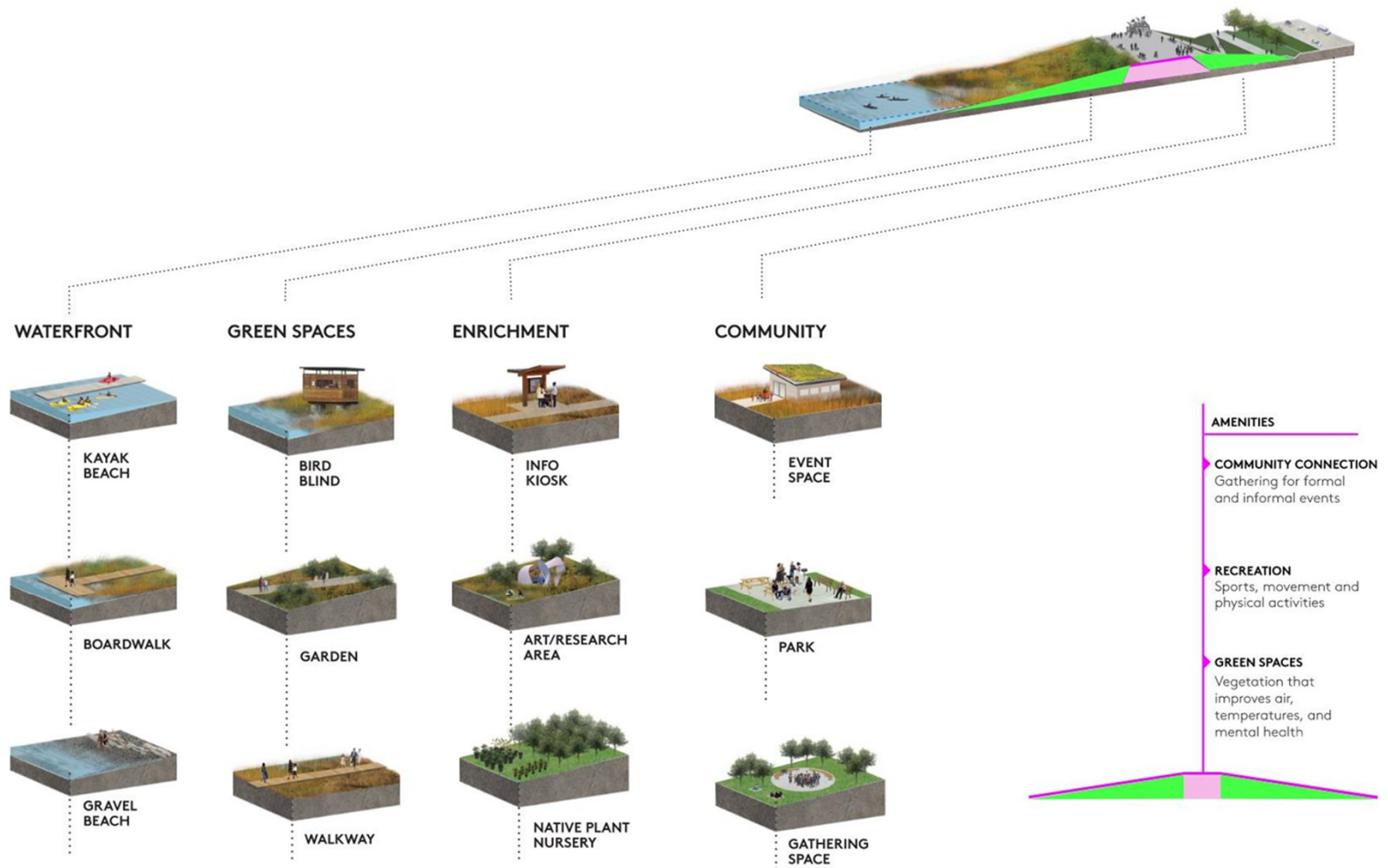
Habitats



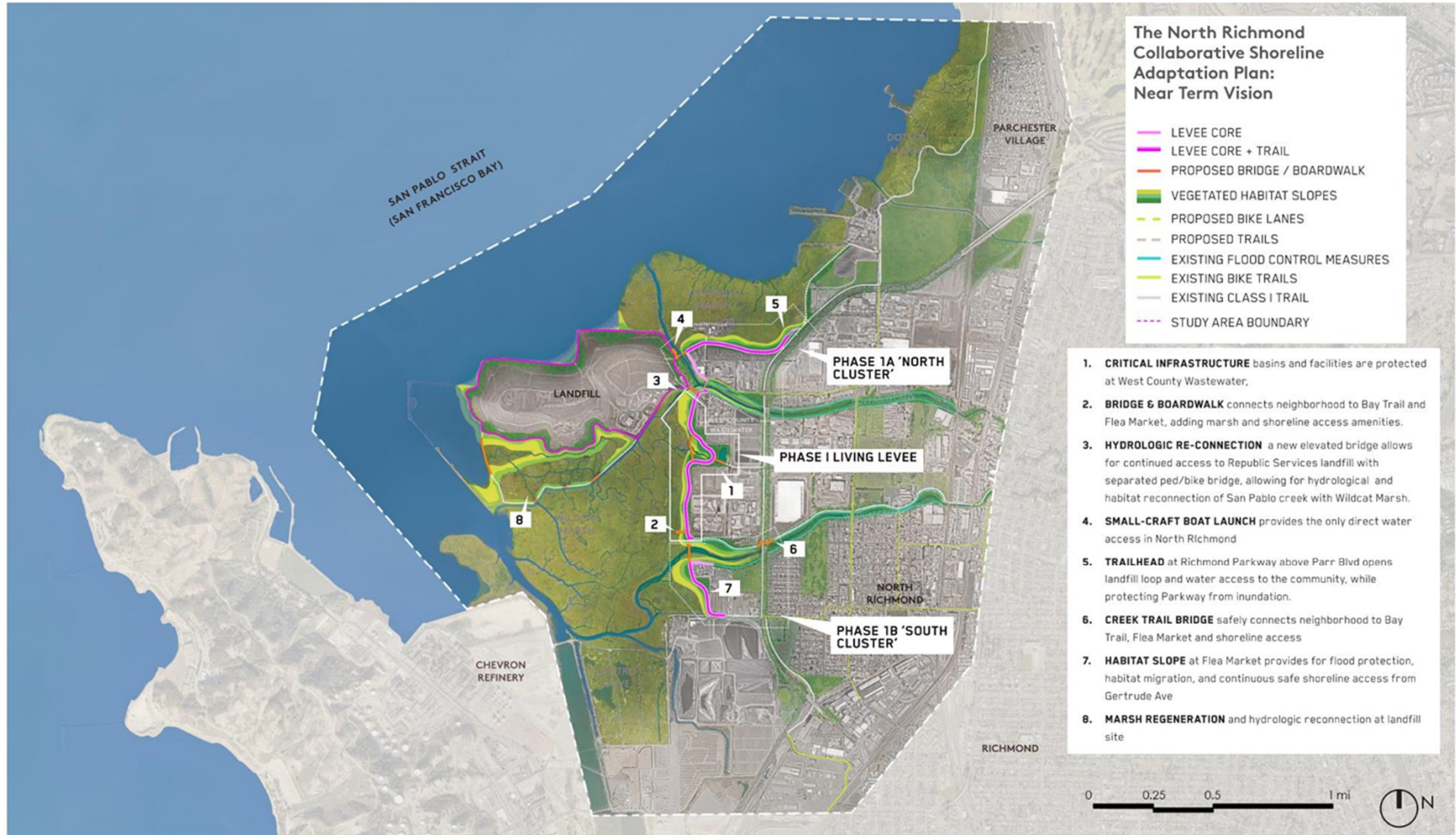
Habitats



Amenities



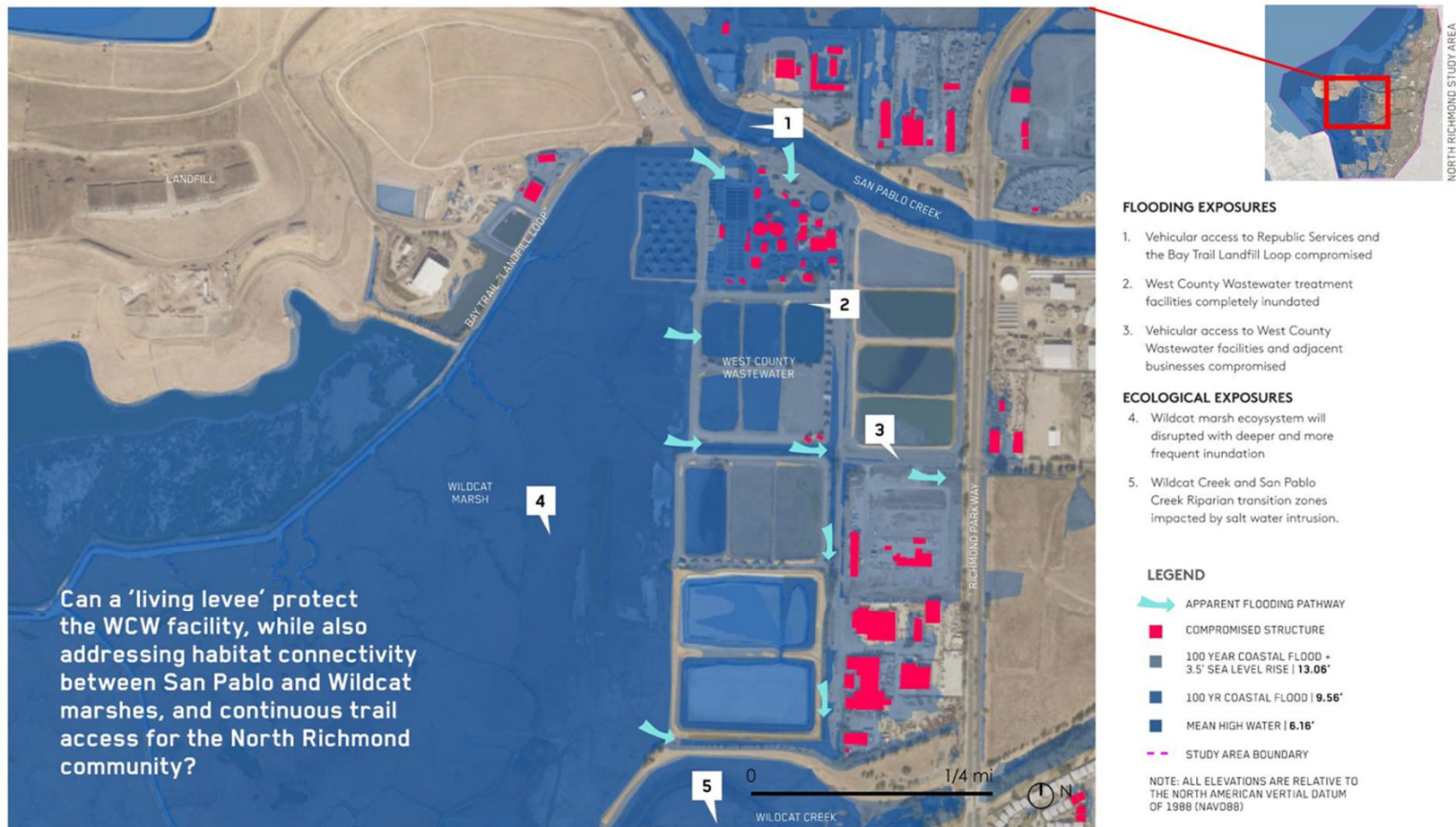
North Richmond Collaborative Shoreline Plan: Near Term Vision



Looking North over WCW



Enlarged View: Inundation at West County Wastewater vicinity



PHASE I – LIVING LEVEE AT WEST COUNTY WASTEWATER

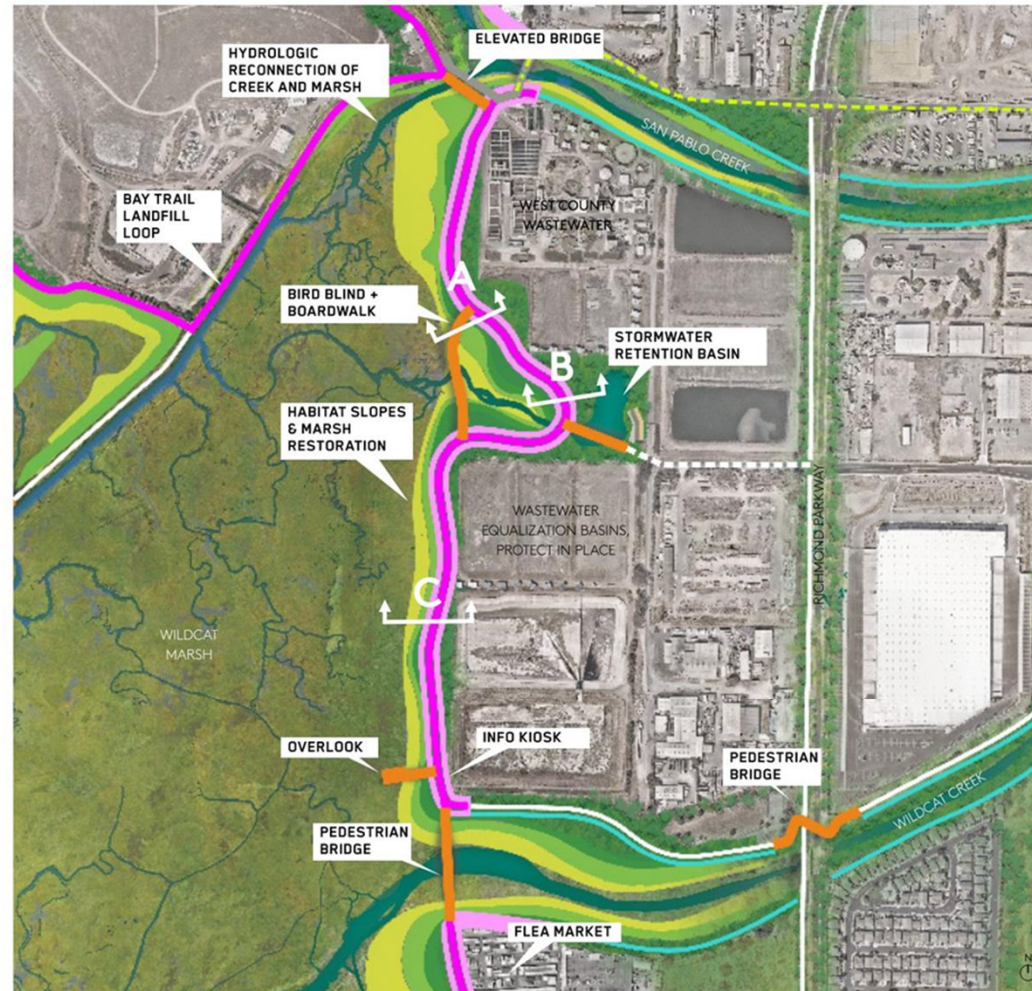
SECTION "A" WILDCAT MARSH
BOARDWALK & TRAIL ACCESS

SECTION "B" STORMWATER RETENTION

SECTION "C" EQUALIZATION BASIN

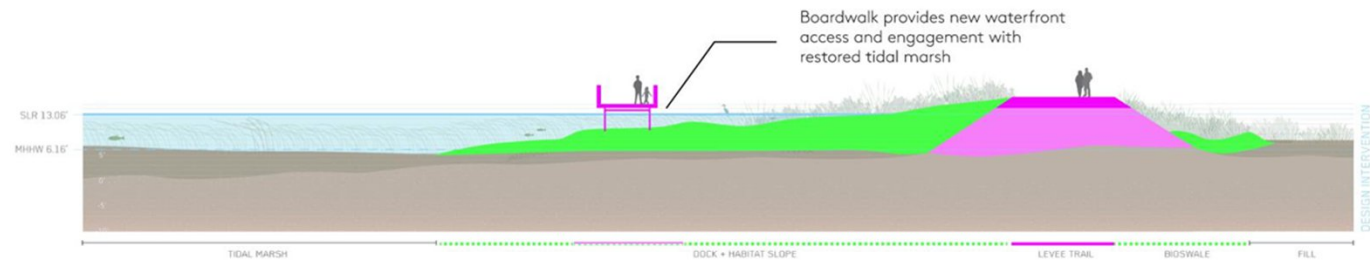
SEE SECTION ENLARGED EXHIBITS ON FOLLOWING PAGES.
SEE APPENDIX FOR DESIGN DETAILS.

- LEVEE CORE
- LEVEE CORE + TRAIL
- PROPOSED BRIDGE / BOARDWALK
- VEGETATED HABITAT SLOPES
- PROPOSED BIKE LANES
- PROPOSED TRAILS
- EXISTING FLOOD CONTROL MEASURES
- EXISTING BIKE TRAILS
- EXISTING CLASS I TRAIL
- STUDY AREA BOUNDARY



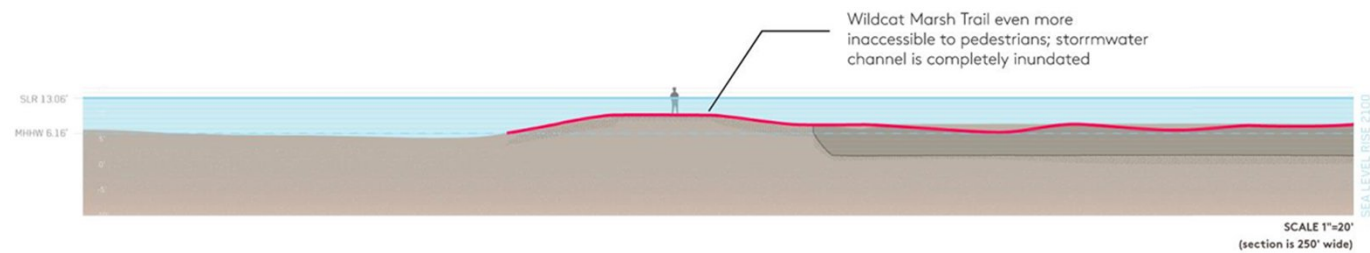
A Wildcat Marsh Boardwalk & Trail Access

OPENING THE WATERFRONT



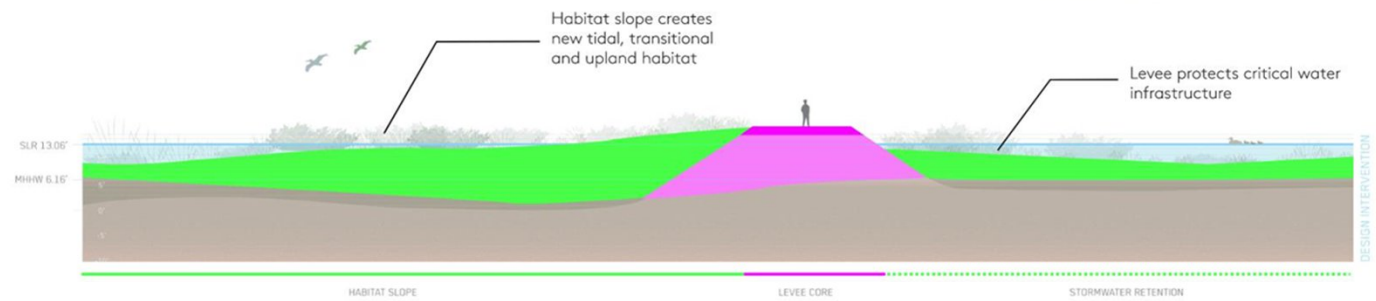
LEGEND

- LEVEE
- HABITAT
- WATER LEVELS
- OVERTOPPING
- GROUND
- SUB-SURFACE GROUNDWATER (ESTIMATED)



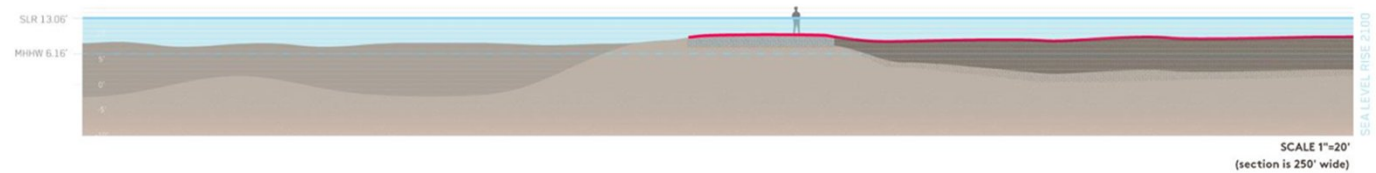
B Stormwater Retention

PROTECTING WATER AND
ADDING HABITAT



LEGEND

- LEVEE
- HABITAT
- WATER LEVELS
- OVERTOPPING
- GROUND
- SUB-SURFACE GROUNDWATER (ESTIMATED)



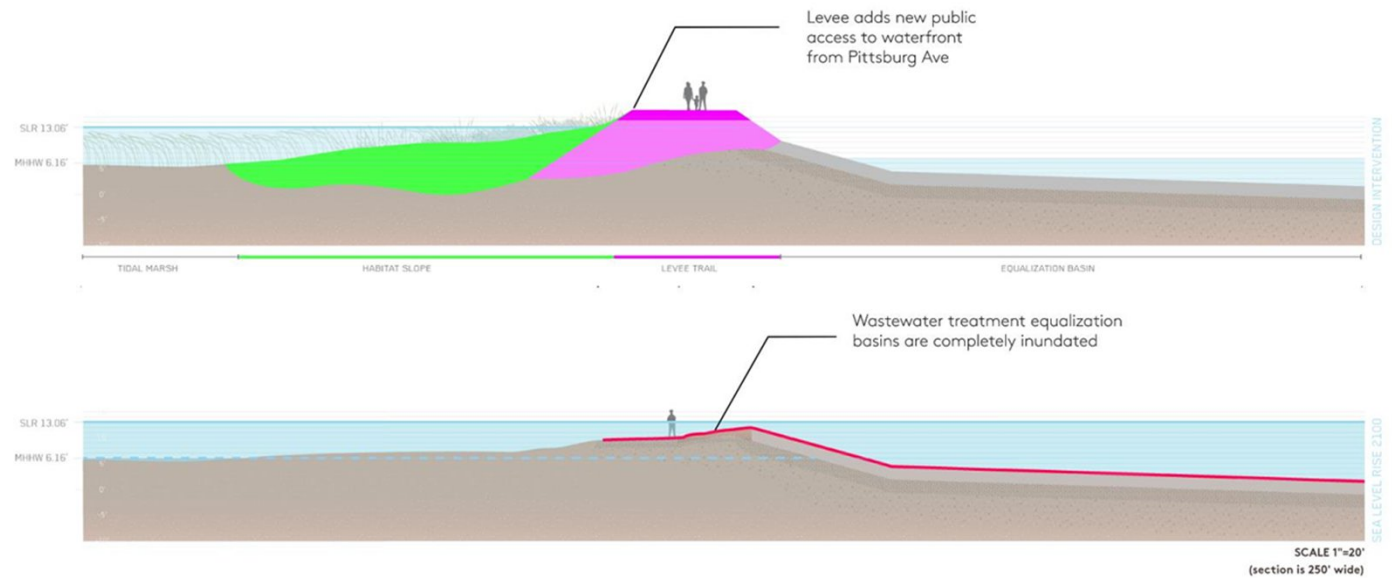
C Equalization Basin

INTEGRATING PERMANENT PUBLIC ACCESS WITH
INFRASTRUCTURE



LEGEND

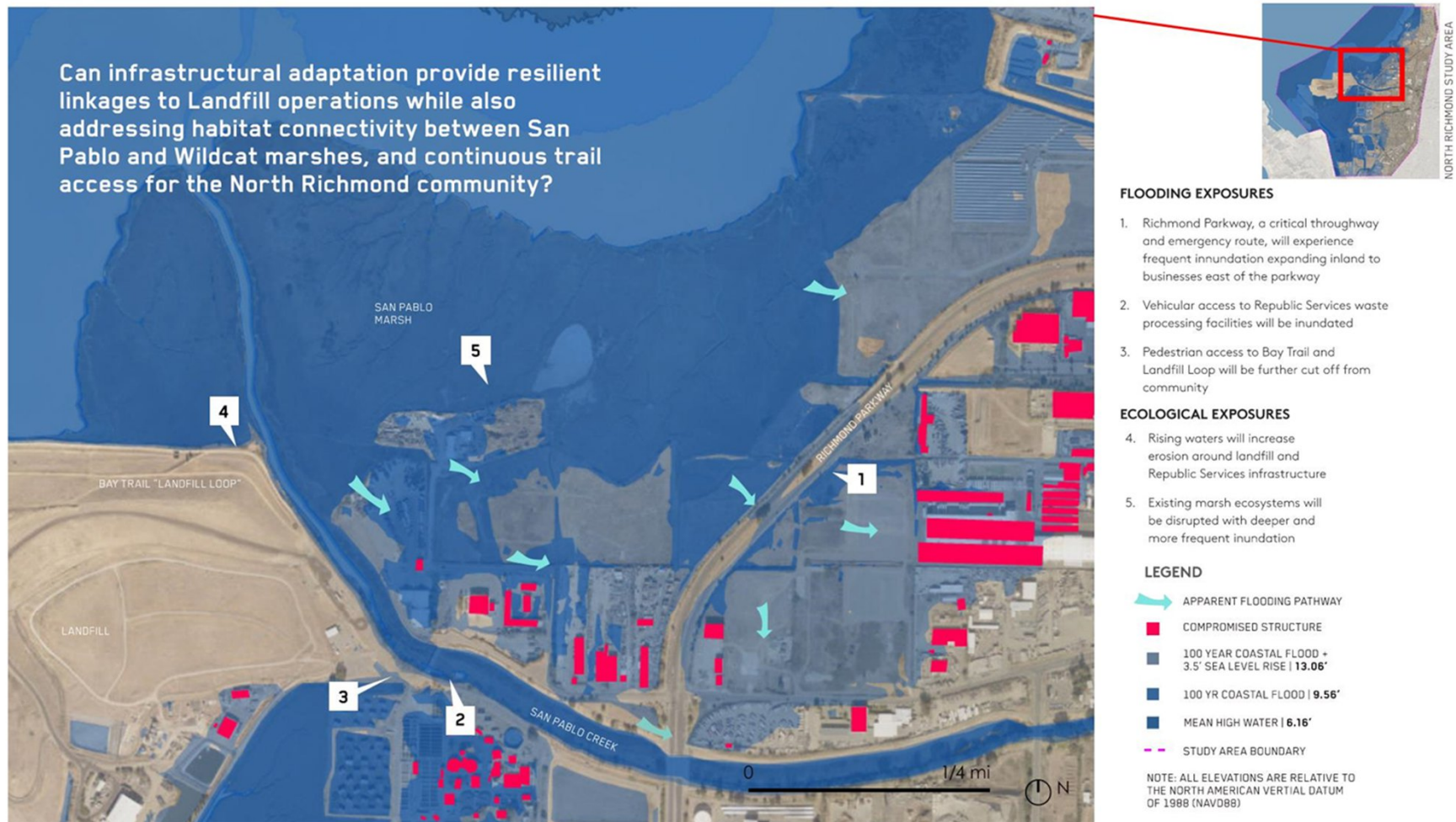
- LEVEE
- HABITAT
- WATER LEVELS
- OVERTOPPING
- GROUND
- SUB-SURFACE GROUNDWATER (ESTIMATED)



Looking South at San Pablo Marsh



Enlarged View: Inundation at San Pablo Marsh & Richmond Pkwy



PHASE 1A: "CLUSTER NORTH" CONCEPT DESIGN

SECTION "A" REPUBLIC SERVICES

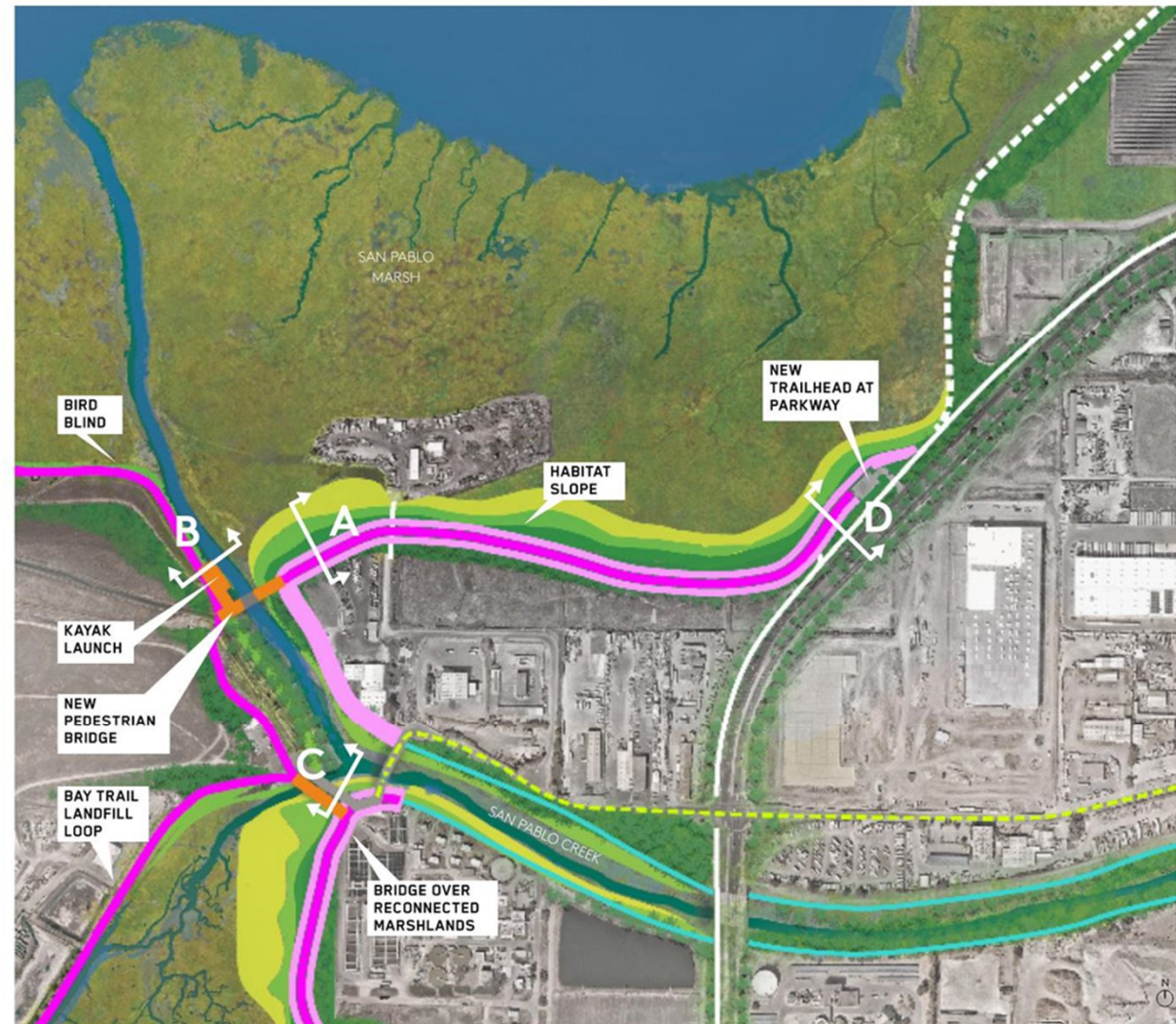
SECTION "B" SMALL-CRAFT LAUNCH

SECTION "C" MARSH RE-CONNECTION

SECTION "D" RICHMOND PARKWAY

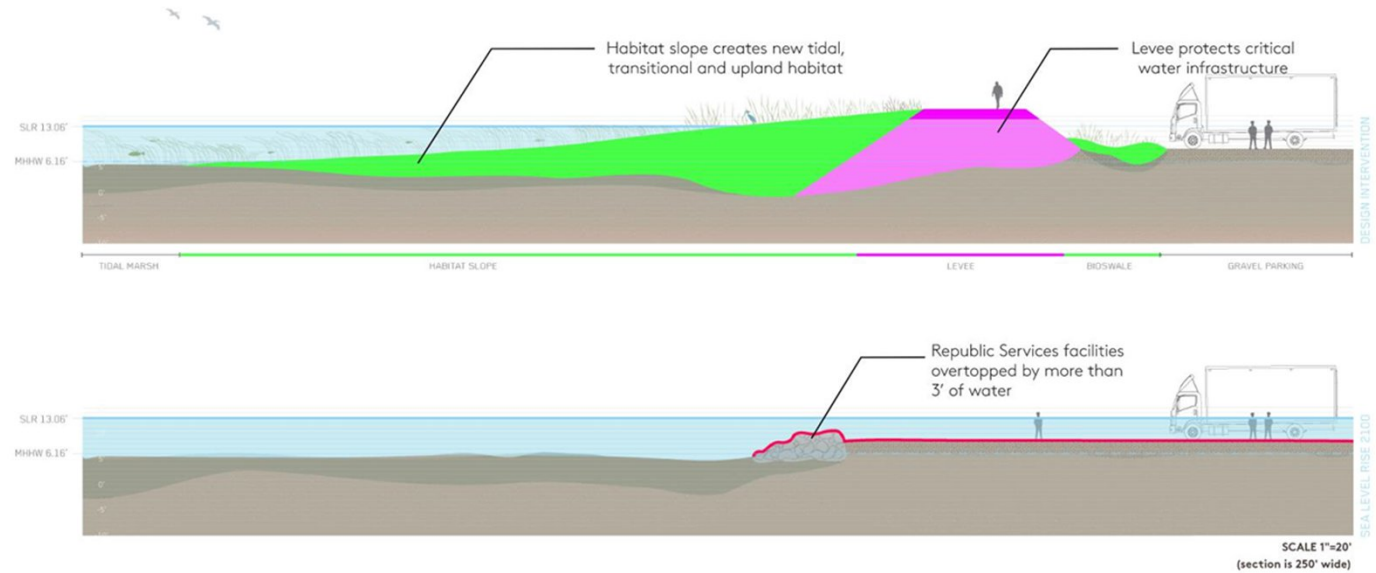
SEE SECTION ENLARGED EXHIBITS ON FOLLOWING PAGES

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- PROPOSED TRAILS
- EXISTING FLOOD CONTROL MEASURES
- EXISTING BIKE TRAILS
- EXISTING CLASS I TRAIL
- STUDY AREA BOUNDARY



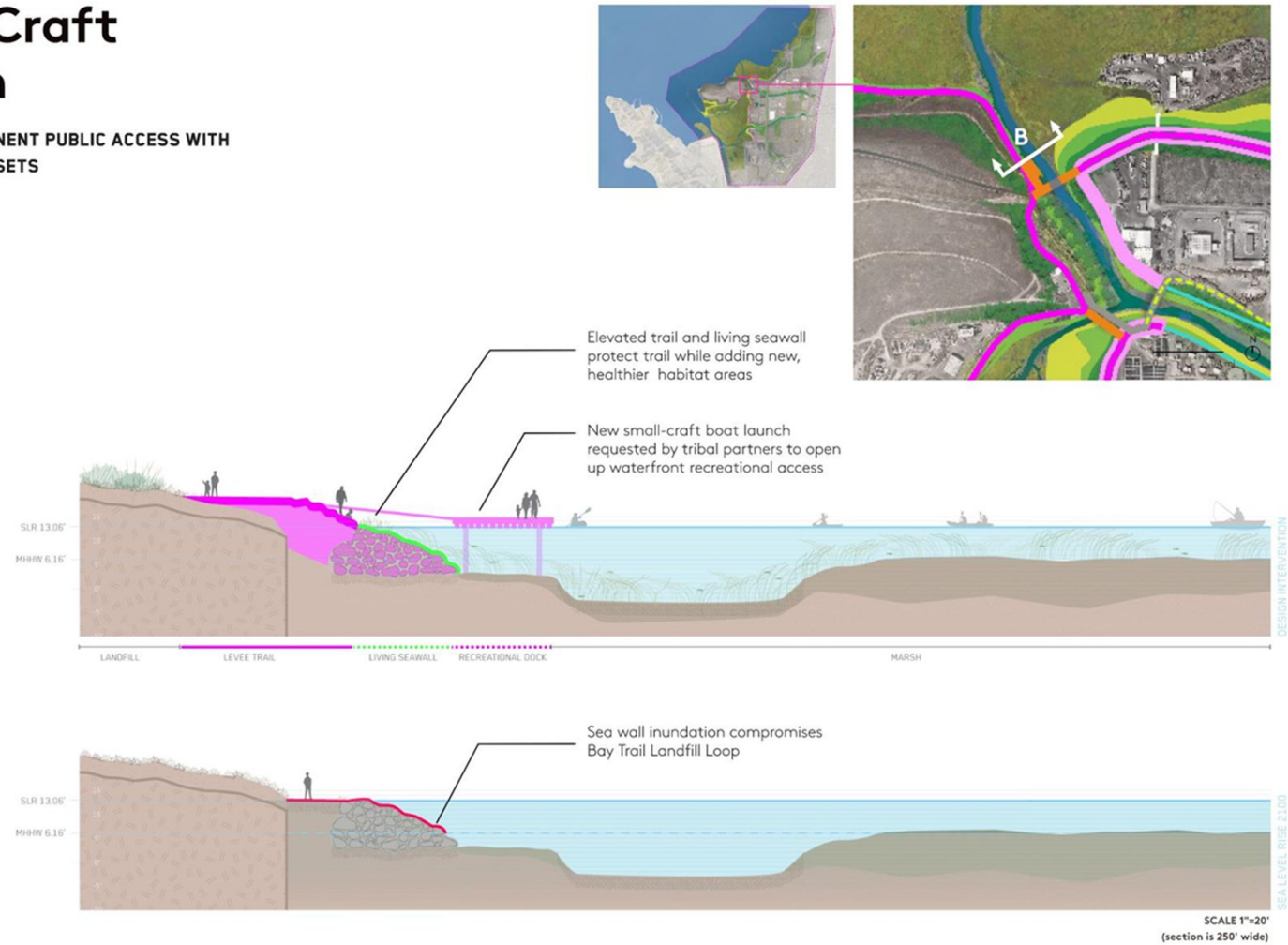
A Republic Services

INTEGRATING HABITAT ADAPTATION, PERMANENT
PUBLIC ACCESS WITH CURRENT FACILITIES



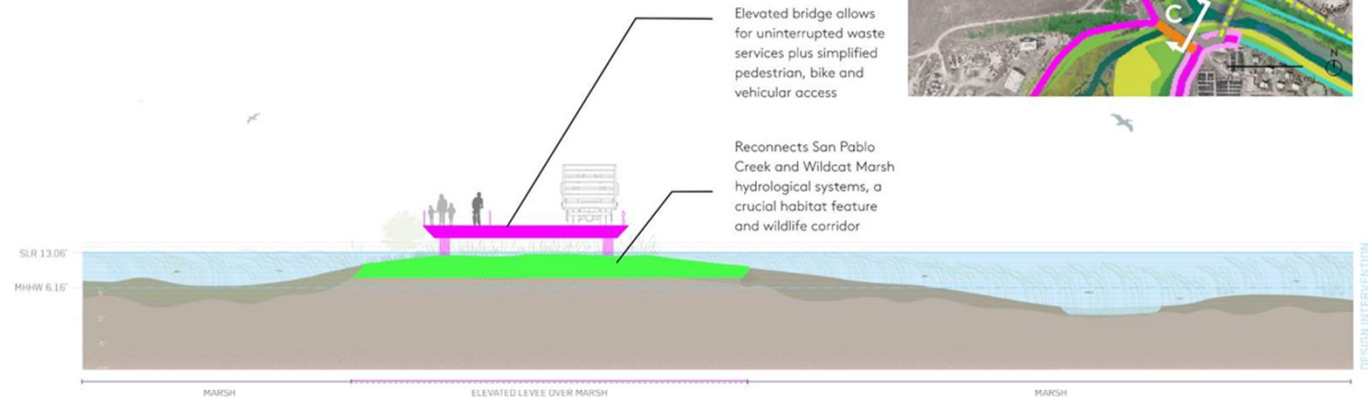
B Small-Craft Launch

ELEVATING PERMANENT PUBLIC ACCESS WITH RECREATIONAL ASSETS



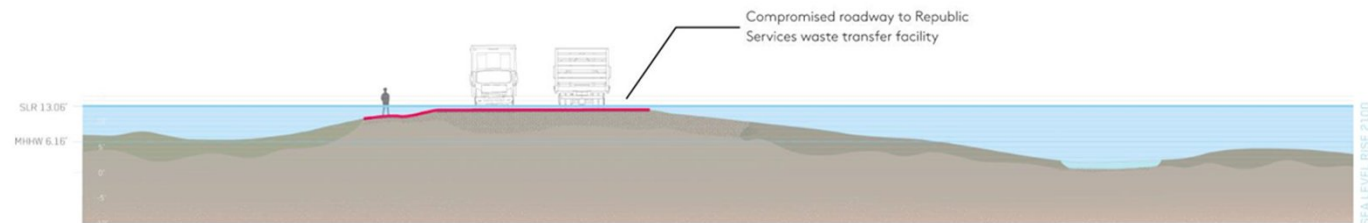
C Marsh Re-Connection

RECONNECTING HABITAT CORRIDORS AND
HYDROLOGICAL FLOWS; INSTALLING PERMANENT,
SAFE PUBLIC ACCESS



LEGEND

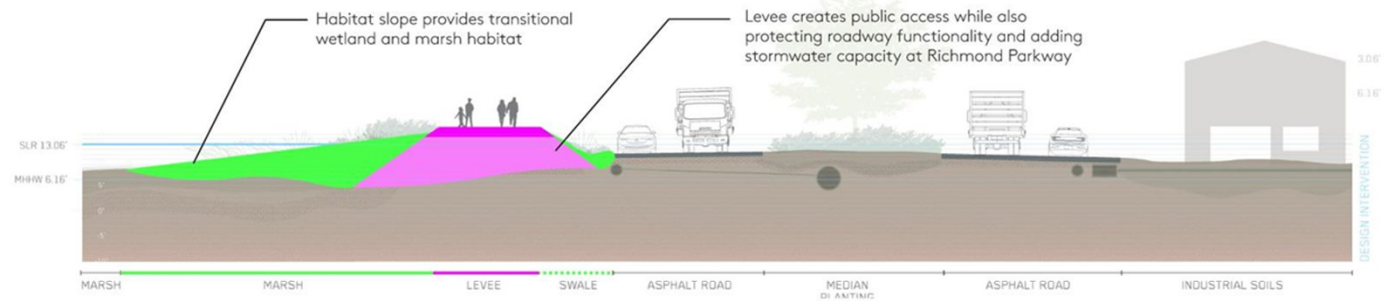
- LEVEE
- HABITAT
- WATER LEVELS
- OVERTOPPING
- GROUND
- SUB-SURFACE GROUNDWATER (ESTIMATED)



SCALE 1"=20'
(section is 250' wide)

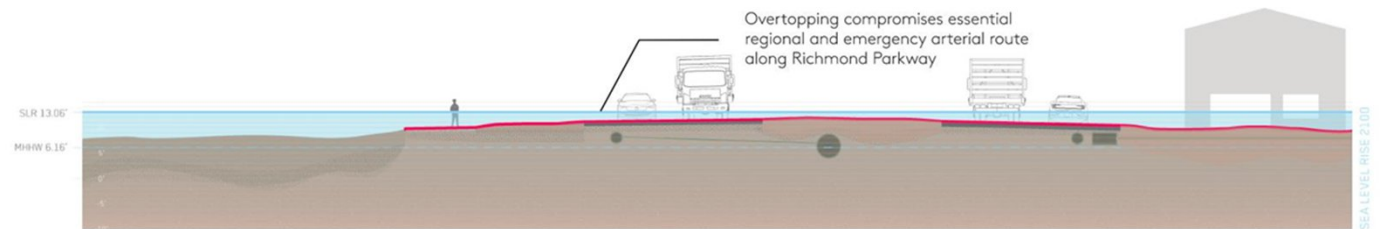
D Richmond Parkway

PROTECTING A CRITICAL TRANSIT CORRIDOR



LEGEND

- LEVEE
- HABITAT
- WATER LEVELS
- OVERTOPPING
- GROUND
- SUB-SURFACE GROUNDWATER (ESTIMATED)

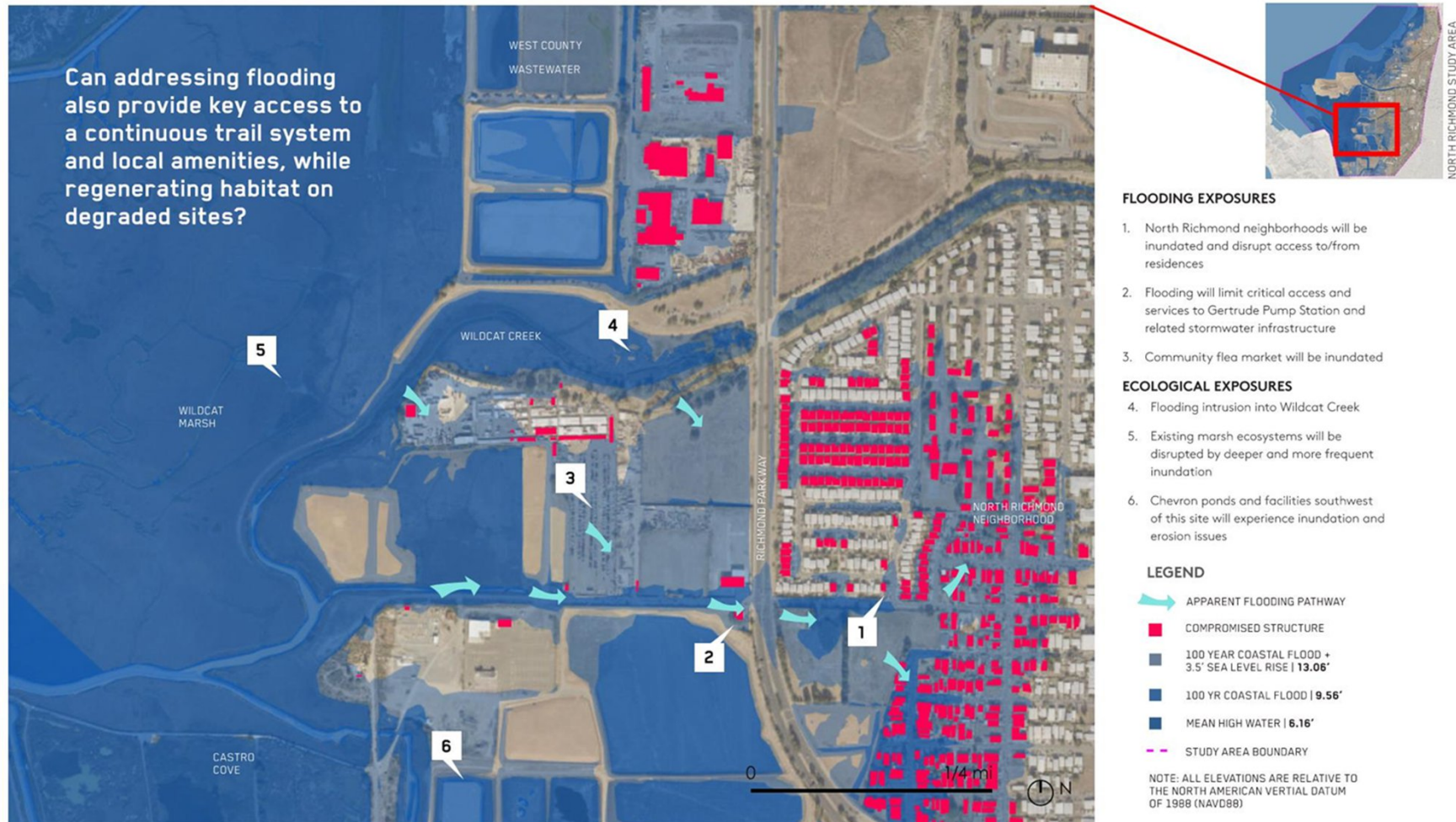


SCALE 1"=20'
(section is 250' wide)

Looking West over North Richmond



Enlarged View: Inundation at North Richmond



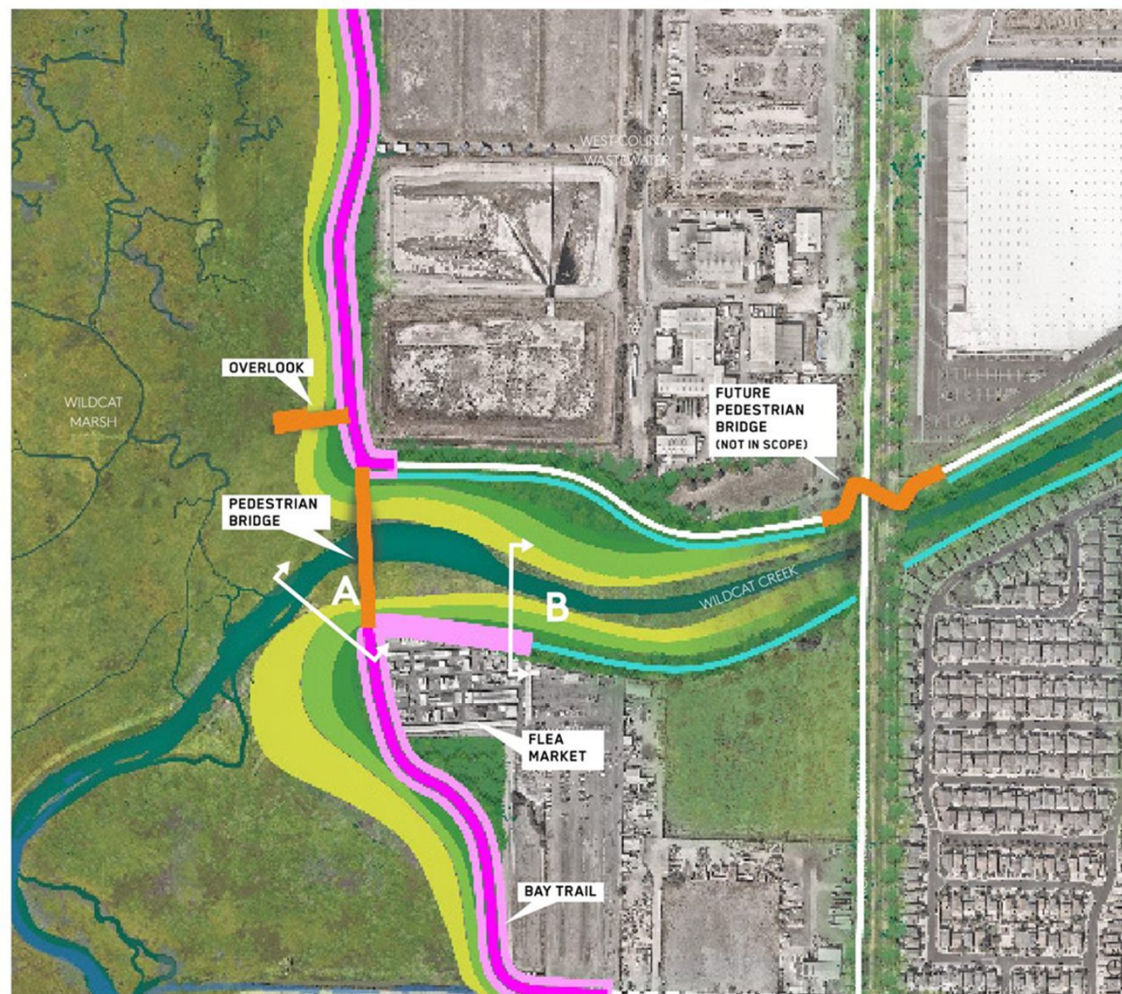
PHASE 1B: "CLUSTER SOUTH" CONCEPT DESIGN

SECTION "A" MARKET-TO-TRAIL
CONNECTION

SECTION "B" RIPARIAN HABITAT

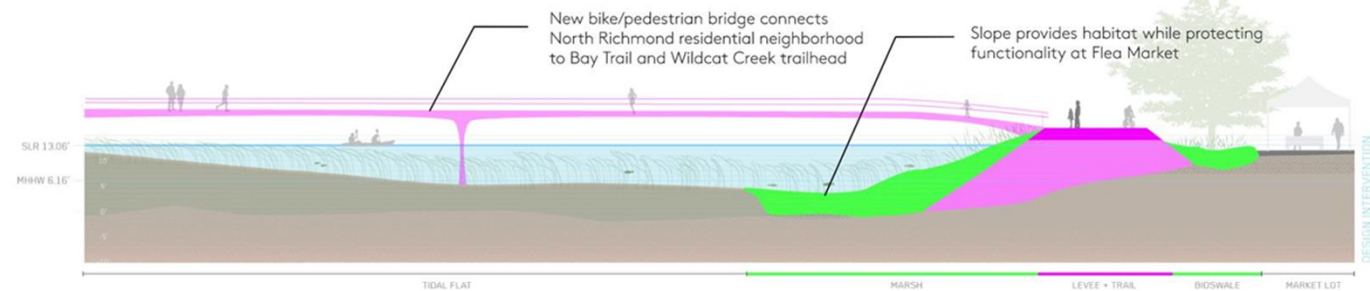
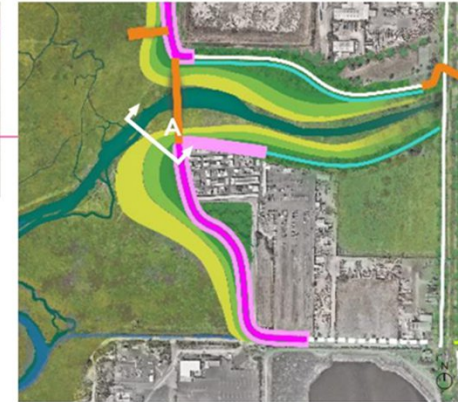
SEE SECTION ENLARGED EXHIBITS ON FOLLOWING PAGES

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- EXISTING CLASS I TRAIL
- STUDY AREA BOUNDARY



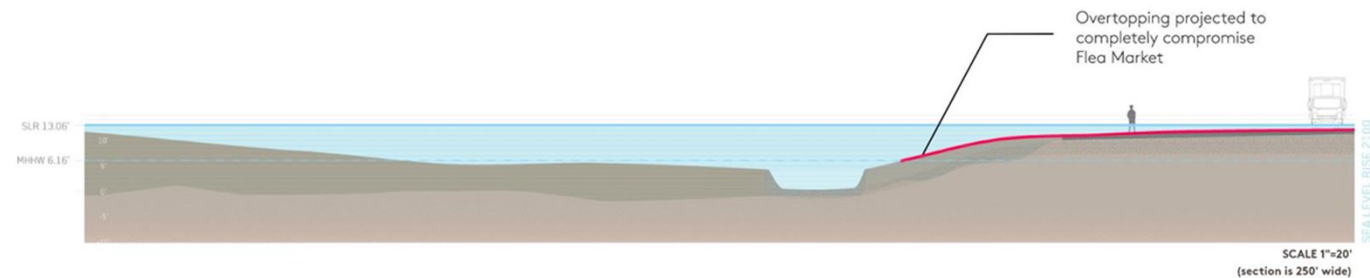
A Market-to-trail connection

INSTALLING PERMANENT, SAFE PUBLIC ACCESS;
PROTECTING AN ESSENTIAL COMMUNITY ASSET

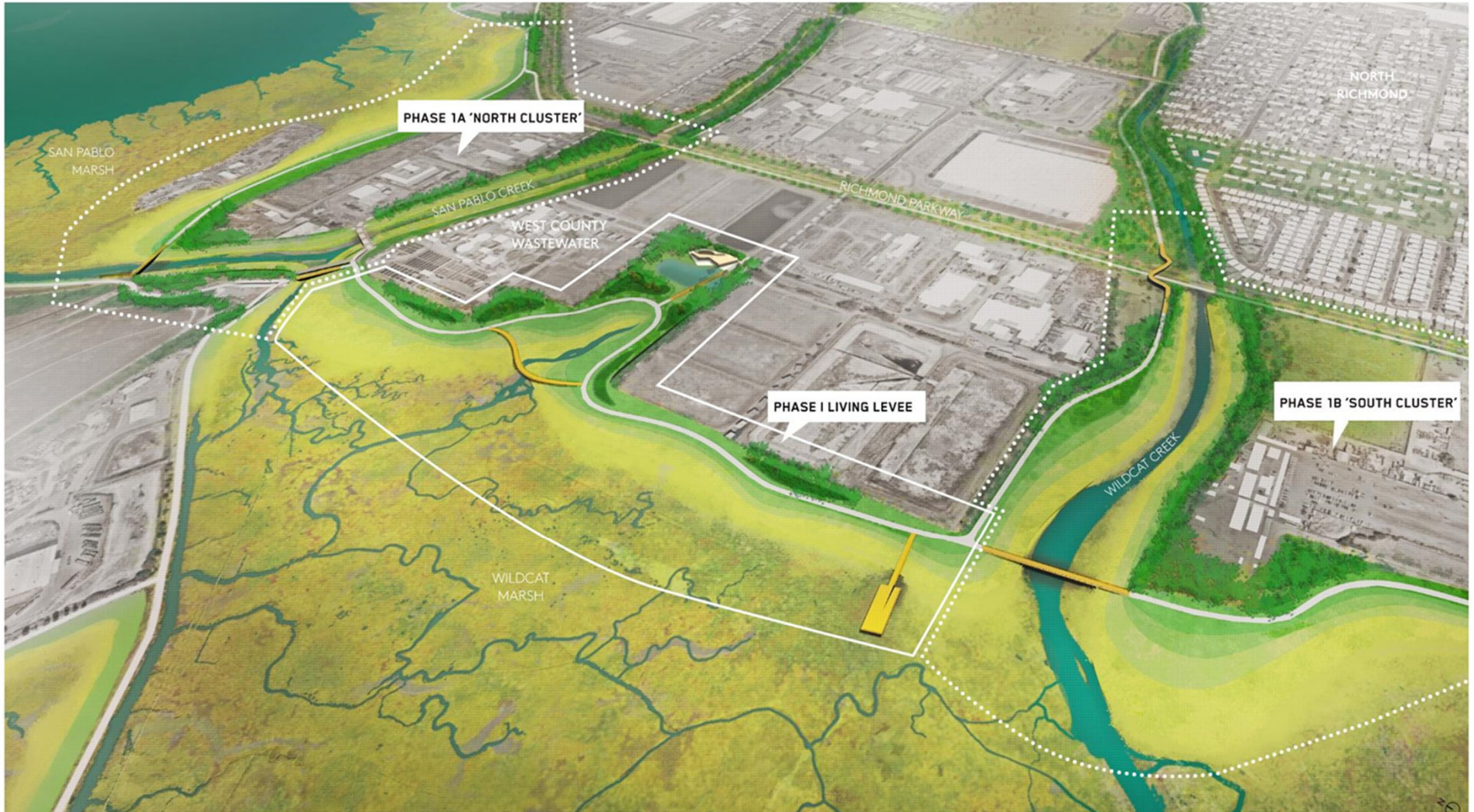


LEGEND

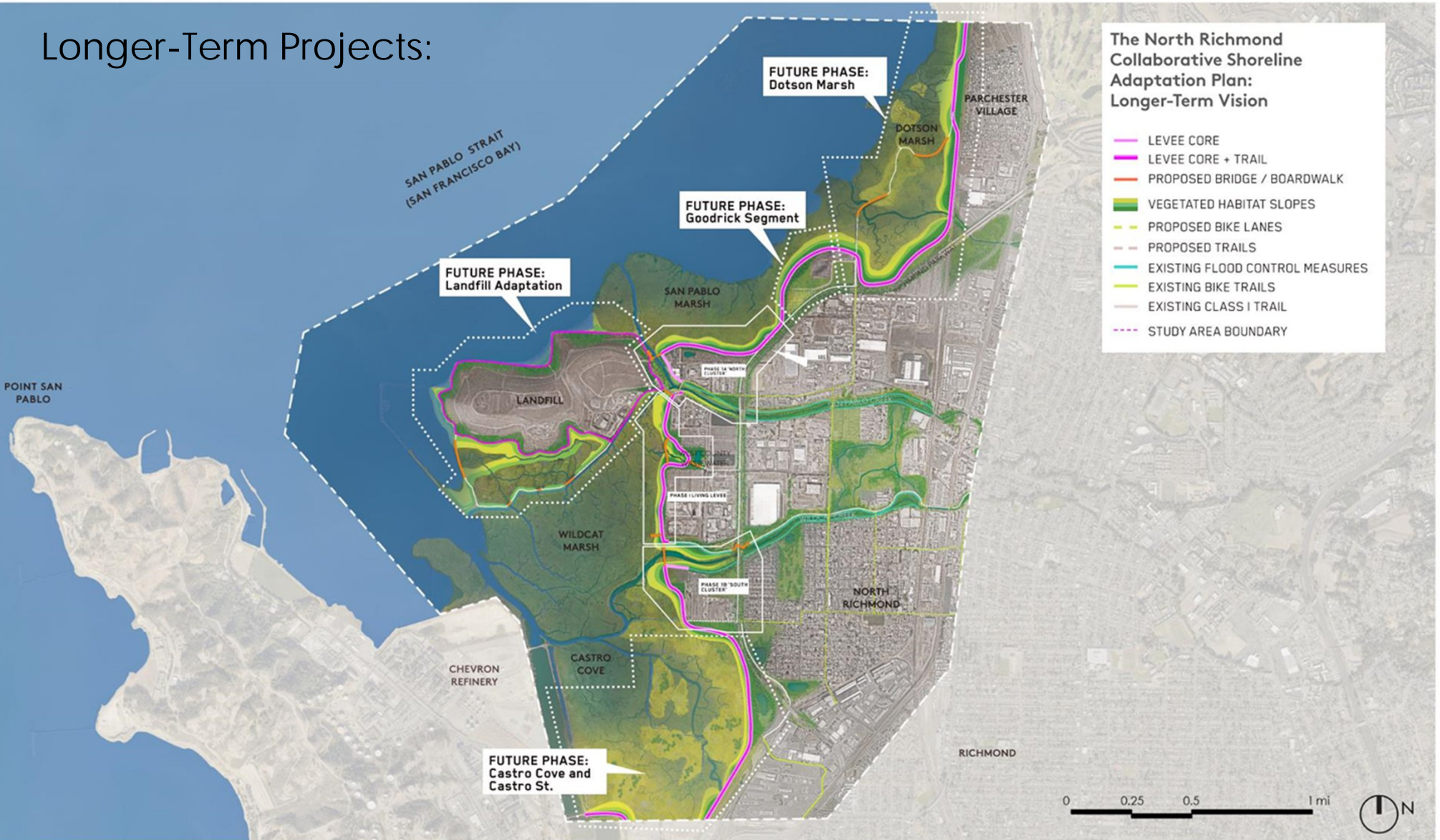
- LEVEE
- HABITAT
- WATER LEVELS
- OVERTOPPING
- GROUND
- SUB-SURFACE GROUNDWATER (ESTIMATED)



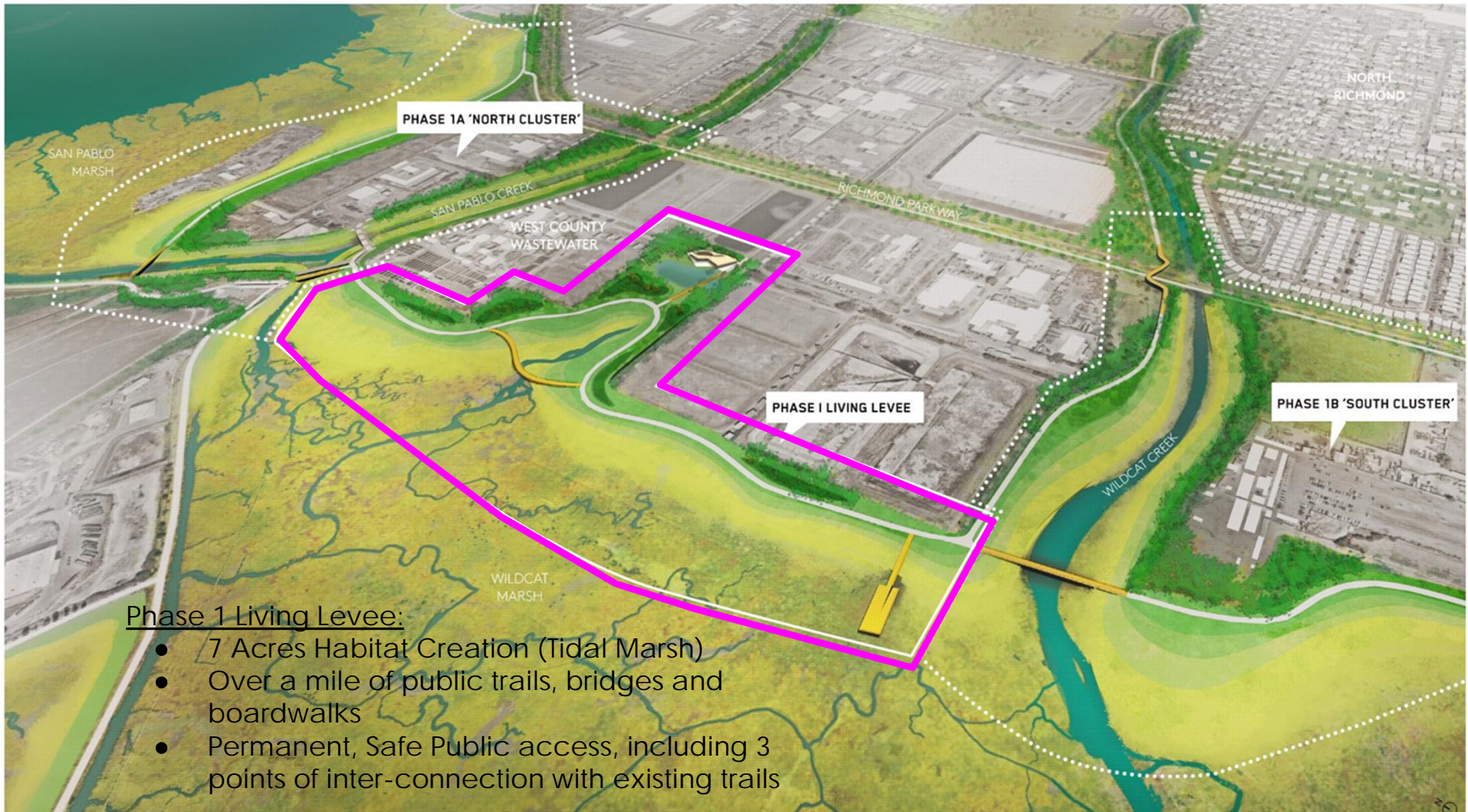
Critical Near-term Projects:



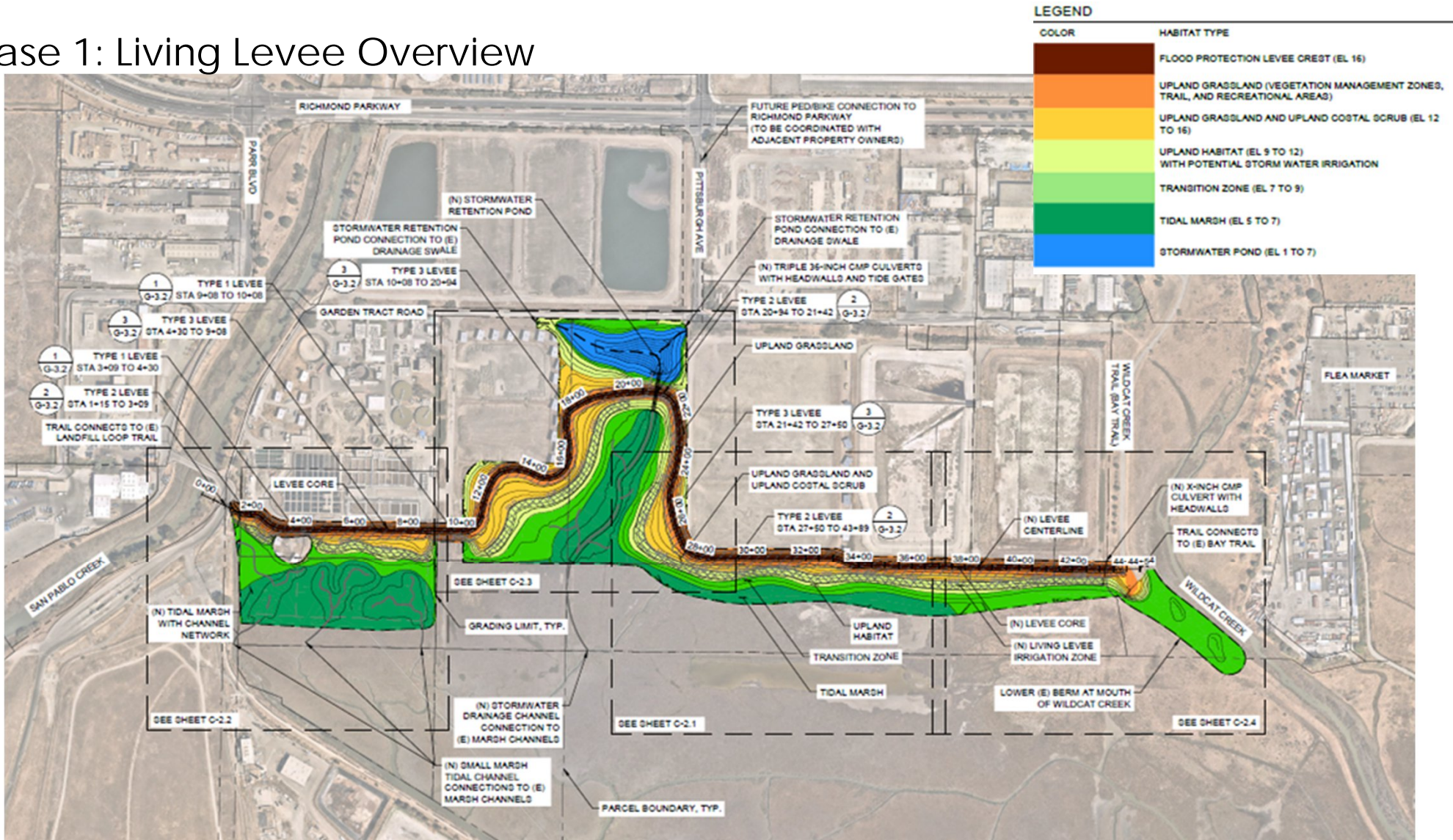
Longer-Term Projects:



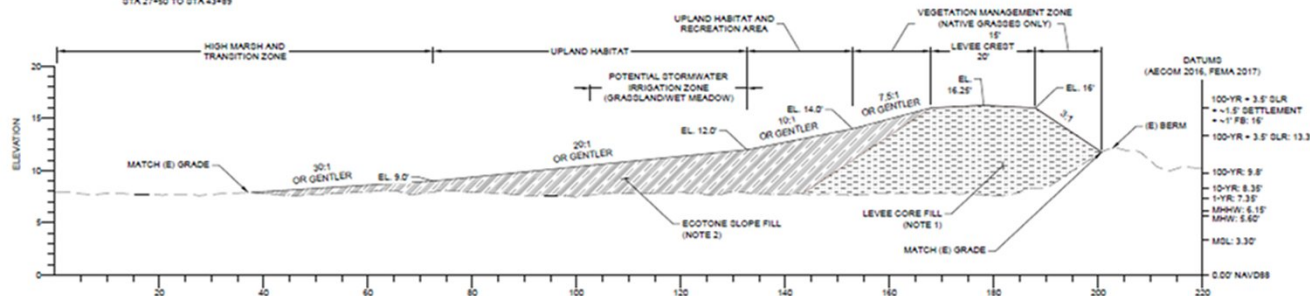
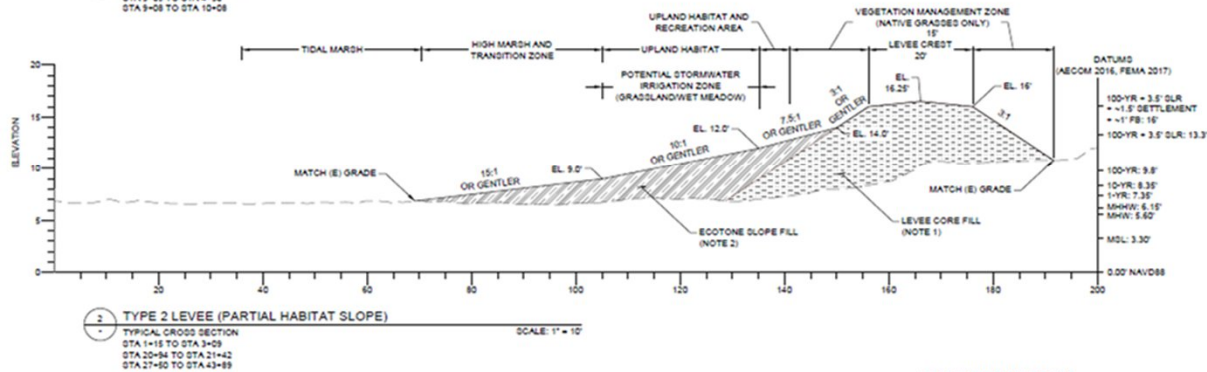
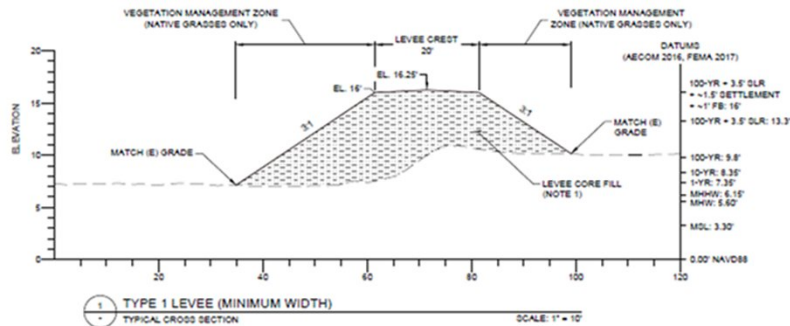
Phase 1 Living Levee at West County Wastewater



Phase 1: Living Levee Overview



Phase 1: Living Levee Typical Cross-Sections



Type 1 - "Minimum Width" Levee

- In areas constrained by existing infrastructure or high-value habitats
- Minimum width needed for flood protection and SLR resilience
- Lowest ecological value

Type 2 - Partial Habitat Slope

- In areas with minor footprint constraints
- 50+ feet for transition-zone and upland native habitats
 - Potential for habitat irrigation with retained stormwater
- Recreation-zone limited to levee crest

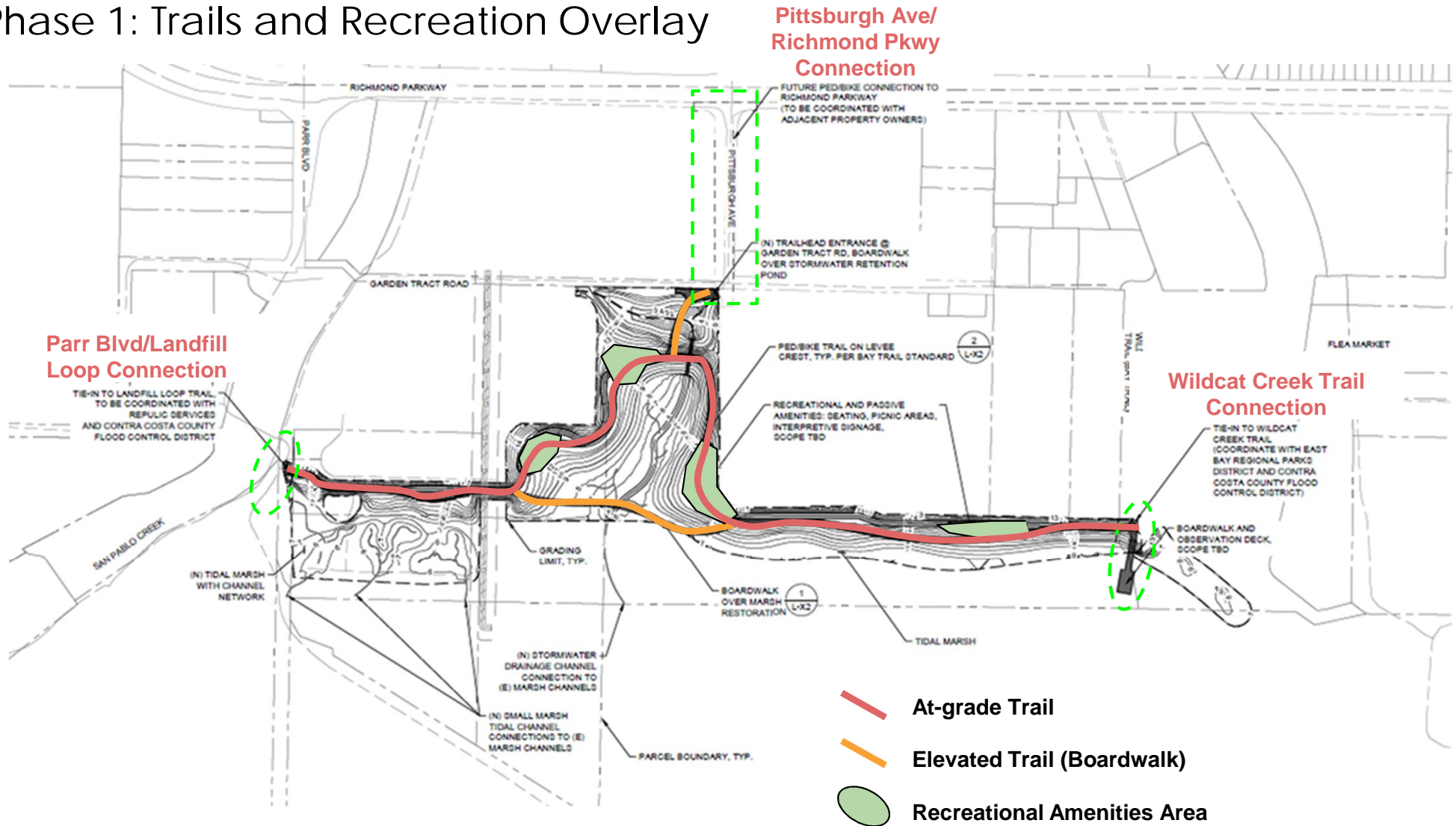
Type 3 - Full Habitat Slope

- In areas with no footprint constraints
- 75+ feet for recreation, transition-zone, and upland native habitats
 - Potential for habitat irrigation with retained stormwater
- 25+ feet for recreation amenities (eg. picnic areas, vista points, etc).

Phase 1: Site Plan



Phase 1: Trails and Recreation Overlay



Earthwork Summary

Total Fill: 140,000 CY

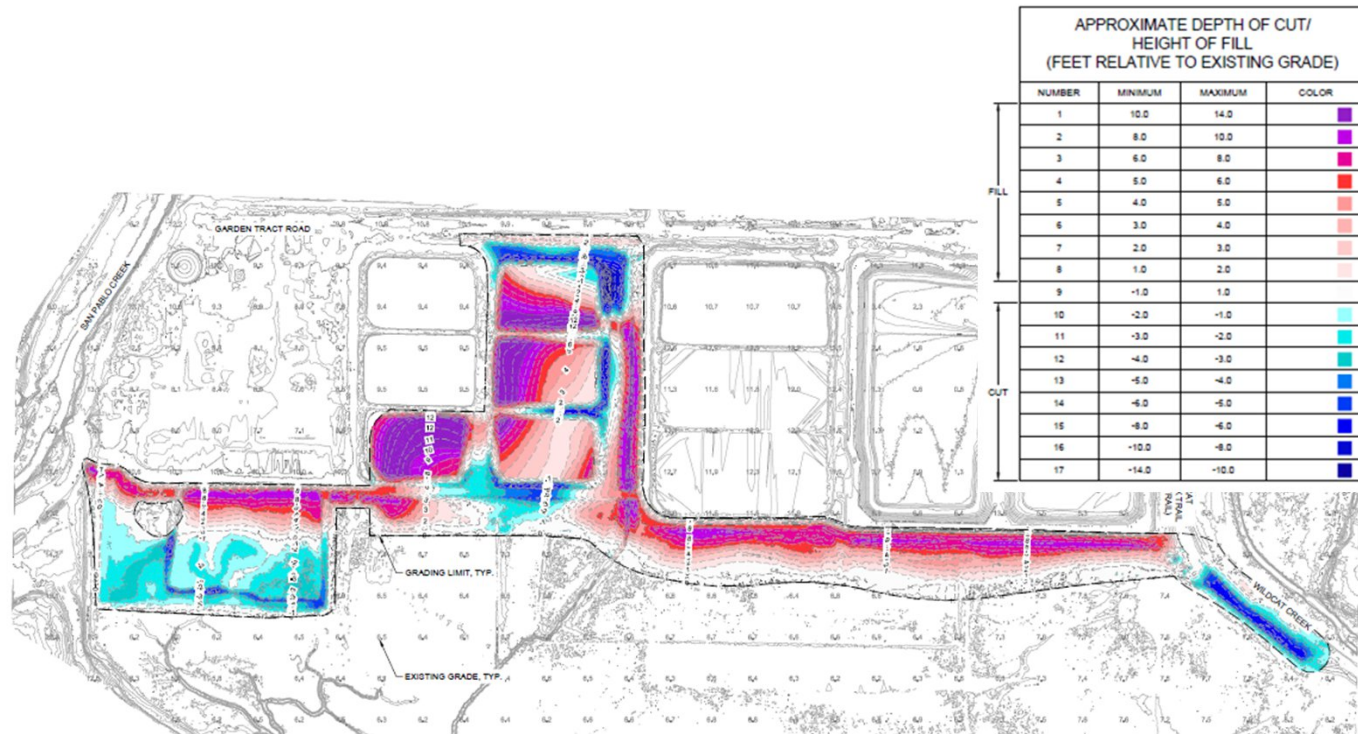
- Levee Core: 50,000 CY
- Habitat Slope: 90,000 CY

Total Cut: 36,000 CY

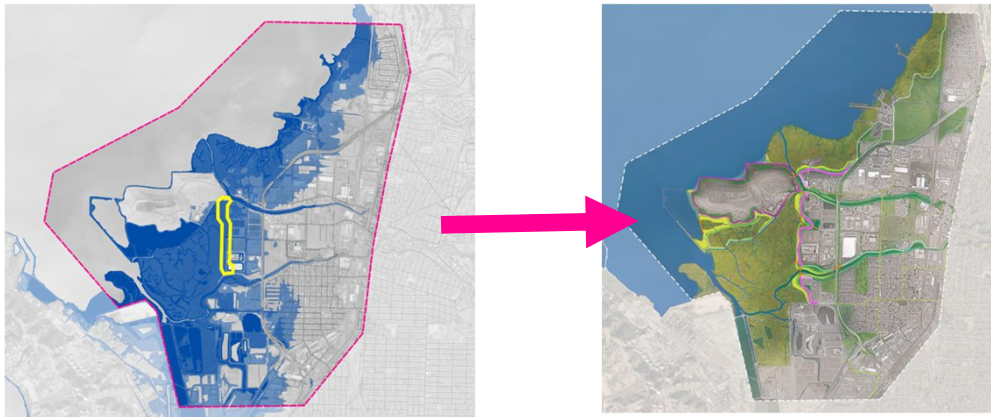
Required Imported Material: 104,000 CY

- Levee Core: 50,000 CY
- Habitat Slope: 54,000 CY

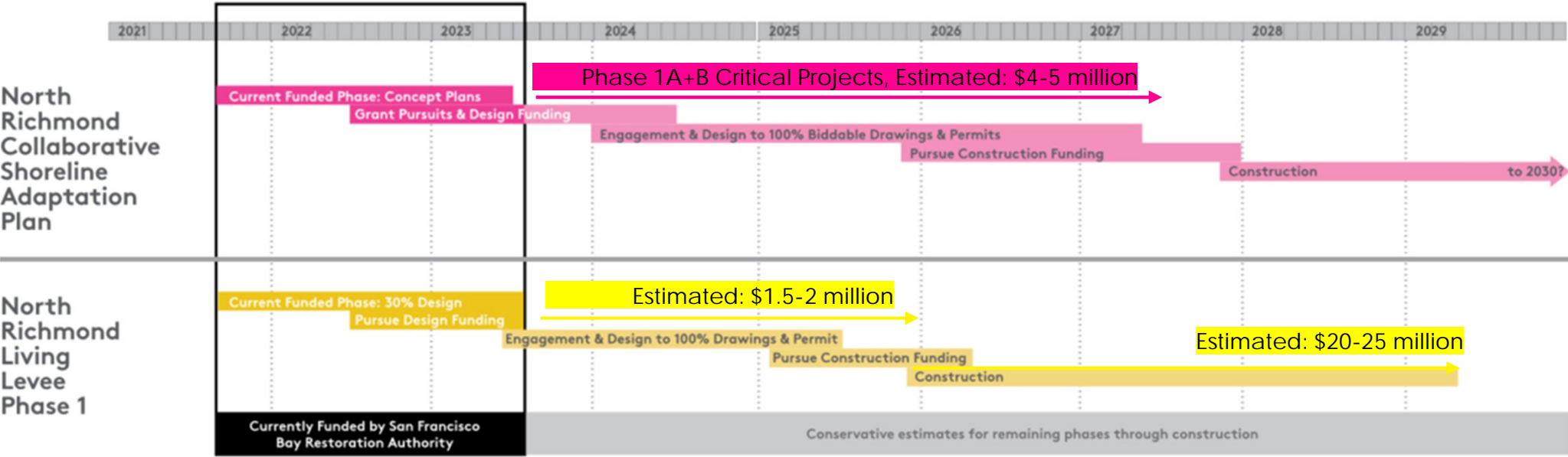
Levee core material should meet USACE levee material specifications.



Looking Ahead...



\$644,709



Further Studies Required (Provisional/Anticipated)

Technical Studies for 60% to Final Design for Phase 1 Living Levee at West County Wastewater

- Geotechnical Study
- Utilities coordination (PG&E, Chevron)
- At-grade and elevated trail section designs
- Aquatic Resources Delineation
- Phase 1 & 2 Soils Assessments
- Design for Community & Recreational Elements

Additional Technical Studies for Feasibility of Phase 1A North and Phase 1B South Projects

- Phase 1 & 2 Soils Assessments
- Groundwater contamination testing
- Stormwater and drainage analysis
- Hydraulic/Flooding analysis

+Community and Governance Capacity Building..

+Stakeholder Engagement & Collaboration..

In Memoriam...





Thank you



WEST COUNTY
WASTEWATER

MITHÜN



the
watershed
project

NORTH RICHMOND
COMMUNITY MEMBERS



SAN FRANCISCO BAY
RESTORATION AUTHORITY



Regional Shoreline Adaptation Plan

An implementing project of **BAY ADAPT**

Contra Costa County Sea Level Rise Ad Hoc Committee

February 21, 2024

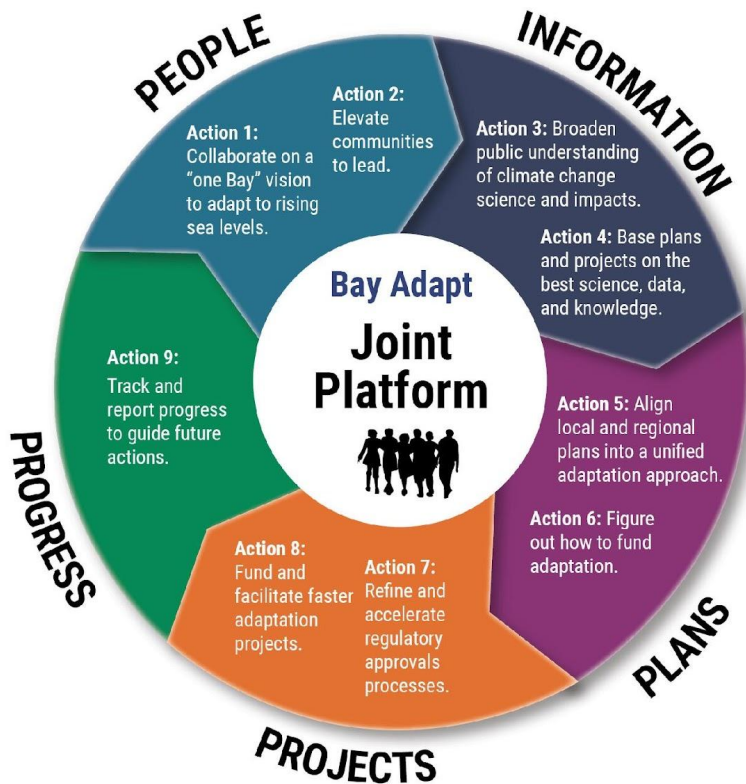
WHY DO WE NEED THE RSAP?

The RSAP is BCDC's way of meeting SB 272 requirements and positioning the region to advance adaptation planning and projects

- **Coordinated** adaptation
- Priority resources to **frontline communities**
- Long-term **health of wetlands**
- **Strategic** implementation
- Common **standards and methods**
- Advance priority **projects and funding**
- Track and **measure progress**



**Regional Shoreline
Adaptation Plan**
An implementing project of BAY ADAPT



THE RSAP IS IMPLEMENTING BAY ADAPT

- *Action 1. Collaborate on a “One Bay” vision to adapt to rising sea levels.*
- *Action 5. Align local and regional plans into a unified adaptation approach.*
- *Action 8. Fund and facilitate faster adaptation projects.*
- *Action 9. Track and report progress to guide future actions.*

GUIDING PRINCIPLES



Support socially vulnerable communities



Put nature first whenever possible



Solve interconnected problems at the same time



Practice inclusive, community-led governance and decision making



Support existing efforts but plan for the long term



Pick the right strategy for the right time at the right place



A biker on a flooded trail near Bothin Marsh. Photo courtesy of the California King Tides project.

WHAT IS THE ONE BAY VISION?



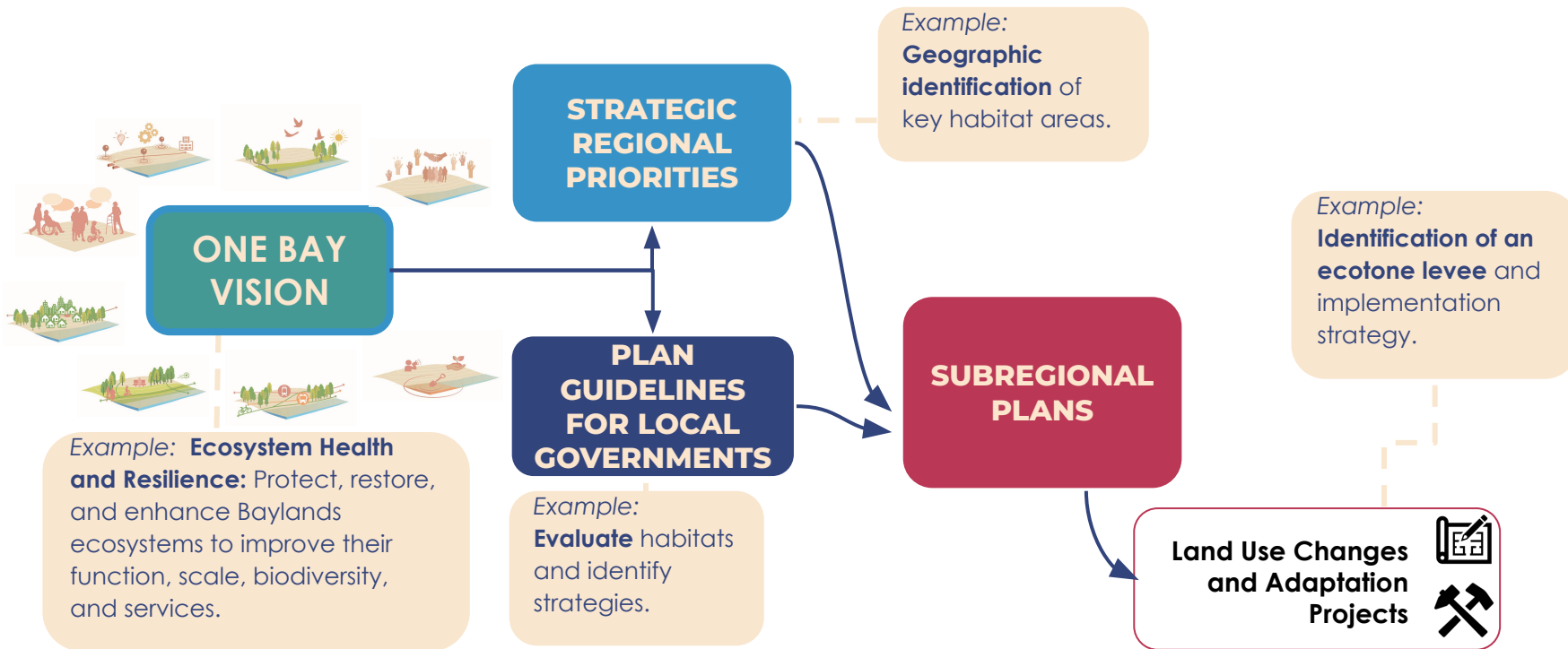
BAY ADAPT GUIDING PRINCIPLES

Describes what **successful shoreline adaptation will look like** in the face of rising sea level, and guides the development of strategic regional priorities and local planning guidelines.

Bay Adapt
Guiding
Principles



HOW WILL THE VISION INFORM ADAPTATION?



HOW WAS THE VISION DEVELOPED?

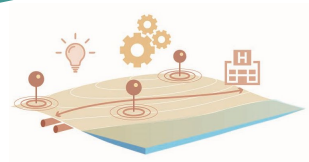
- Building upon existing regional plans and efforts
- > 500 people shared with us their values and visions for the future of the shoreline
 - 10 events
 - Public Workshop
 - Expert Advisory Group
 - Online survey



One Bay Vision for A Resilient Future Shoreline



**a. COMMUNITY
HEALTH &
WELLBEING**



**b. CRITICAL
INFRASTRUCTURE
& SERVICES**



**c. ECOSYSTEM
HEALTH &
RESILIENCE**



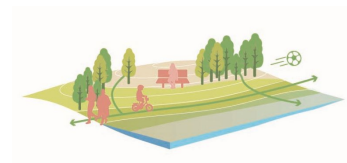
**d. GOVERNANCE,
COLLABORATION
& FINANCE**



**h. TRANSPORTATION
& TRANSIT**



**g. SHORELINE
CONTAMINATION**



**f. PUBLIC ACCESS
& RECREATION**



**e. HOUSING,
DEVELOPMENT &
LAND USE**

ONE BAY VISION

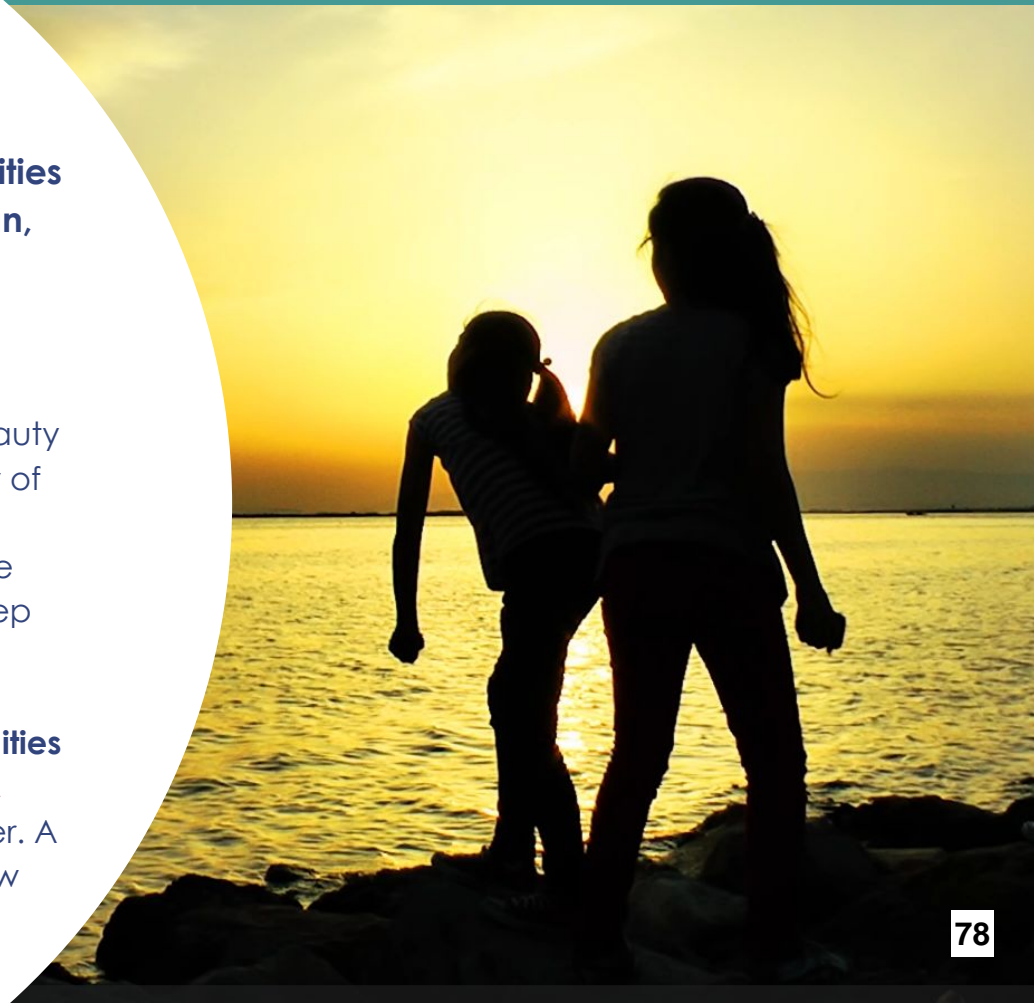
QUESTIONS TO KEEP IN MIND

- What do you like most about the One Bay Vision?
- Is there anything missing or unclear?
- Are you in favor of using this draft One Bay Vision as the basis for our next steps?

One Bay Vision for A Resilient Future Shoreline

As sea levels rise, the Bay Area's diverse communities come together to transform how we live, work, plan, and adapt along our changing shorelines.

In this future, communities are **healthy, safe**, and have greater **access** to the shoreline where they can feel connected to the Bay's edge and experience the beauty and wonder of thriving **habitats** that sustain our quality of life. Our region remains **connected** so that networks of people and goods can move with ease and get to the **places** they need to go. The **services** we rely upon keep our communities and economies running and are designed for the long-term. Achieving this future will require **governments**, the **private sector**, and **communities** to make a commitment to equity, address past harms, and take on complex, interrelated challenges together. A resilient future for the San Francisco Bay Area starts now and continues for generations to come.



As sea levels rise...

a. Communities are healthy and vibrant.

To achieve this:

- Adapt Bay Area communities to safeguard all from the public health consequences of flooding and support healthy environments, public safety, and quality of life.
- Meaningfully engage and empower communities in adaptation decision-making processes, including language access.
- Address risks to essential community assets, services, and cultural resources.
- Prioritize economic opportunities from adaptation in disadvantaged communities through local hire, workforce development, and other community benefits.



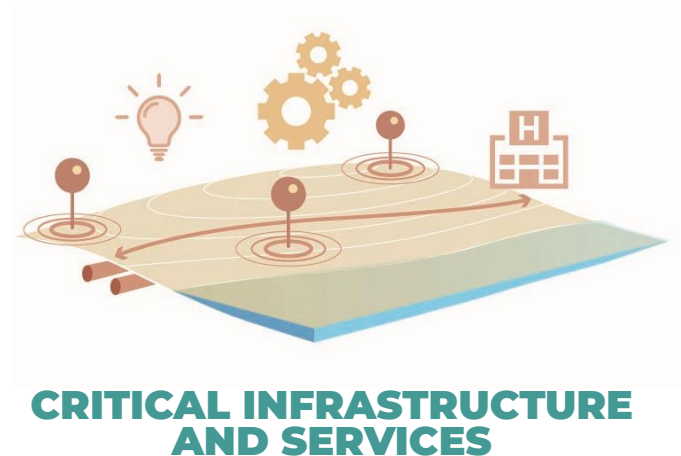
COMMUNITY HEALTH & WELLBEING

As sea levels rise...

b. Critical services are reliable.

To achieve this:

- Adapt existing local and regional critical infrastructure systems to maintain or improve service continuity for everyone, while minimizing vulnerabilities of new infrastructure networks to future flooding hazards.
- Integrate flooding hazards into emergency management services planning and operations.
- Prioritize adaptations that address service deficiencies in underserved communities.



As sea levels rise...

c. Healthy Baylands ecosystems thrive.

To achieve this:

- Protect, restore, and enhance Baylands ecosystems to improve their function, scale, biodiversity, and services.
- Prioritize nature-based solutions where possible and incorporate habitat connectivity, sediment management, and whole watershed approaches into shoreline planning and projects.
- Identify and facilitate opportunities for ecosystems to migrate landward to support and enhance natural adaptation processes.



As sea levels rise...

d. Regional collaboration drives efficient and effective adaptation.

To achieve this:

- Ensure local and regional governments collaborate to address shared flood risk, identify multi-benefit adaptation opportunities, and avoid adverse flooding impacts to other jurisdictions.
- Identify and engage with Indigenous partners when planning, implementing, and managing shoreline adaptation projects.
- Support formal and informal multi-stakeholder collaborations equipped to effectively plan, fund, implement, maintain, and adaptively manage adaptation strategies over time.
- Improve funding and regulatory processes to expedite innovative and transformative adaptation projects with regional benefits.



**GOVERNANCE,
COLLABORATION &
FINANCE**

As sea levels rise...

e. Places are designed for a changing shoreline.

To achieve this:

- Adapt existing development equitably and plan new and re-development projects to ensure community safety, equity, and Bay ecological health.
- Align land use planning with risk mitigation while considering long term economic vitality for all.
- Support the region in creating affordable housing and meeting state-mandated housing goals while preserving public trust uses of the Bay and reducing populations at risk of flooding.



HOUSING, DEVELOPMENT & LAND USE

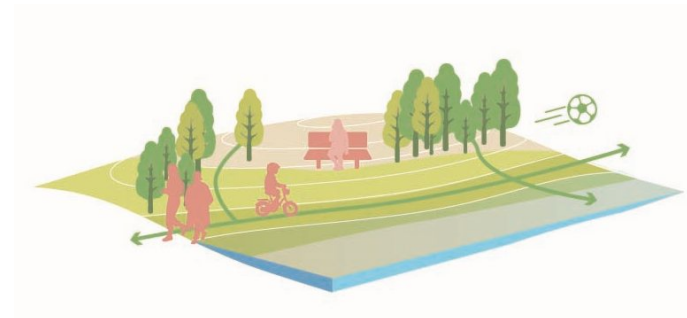


As sea levels rise...

f. The Bay shoreline is accessible to all.

To achieve this:

- Expand and improve diverse shoreline public access, such as recreation opportunities and water-dependent or culturally significant waterfront uses, through adaptation.
- Prioritize connecting disadvantaged neighborhoods to a healthy Bay, creating equitable access for diverse communities.
- Balance the needs for human enjoyment, sustenance, and cultural connection to the Bay with healthy ecosystems.



PUBLIC ACCESS & RECREATION

As sea levels rise...

g. People and ecosystems are safe from contamination risks.

To achieve this:

- Collaborate with communities, scientists, industries, and government agencies to identify, adapt, and remediate contaminated shoreline sites.
- Prioritize remediation of contaminated sites in Environmental Justice communities, while minimizing transferring contamination burden.
- Integrate emerging science on shallow groundwater rise into planning and adaptation decisions.



SHORELINE CONTAMINATION

As sea levels rise...

h. Safe and reliable transportation connects the region.

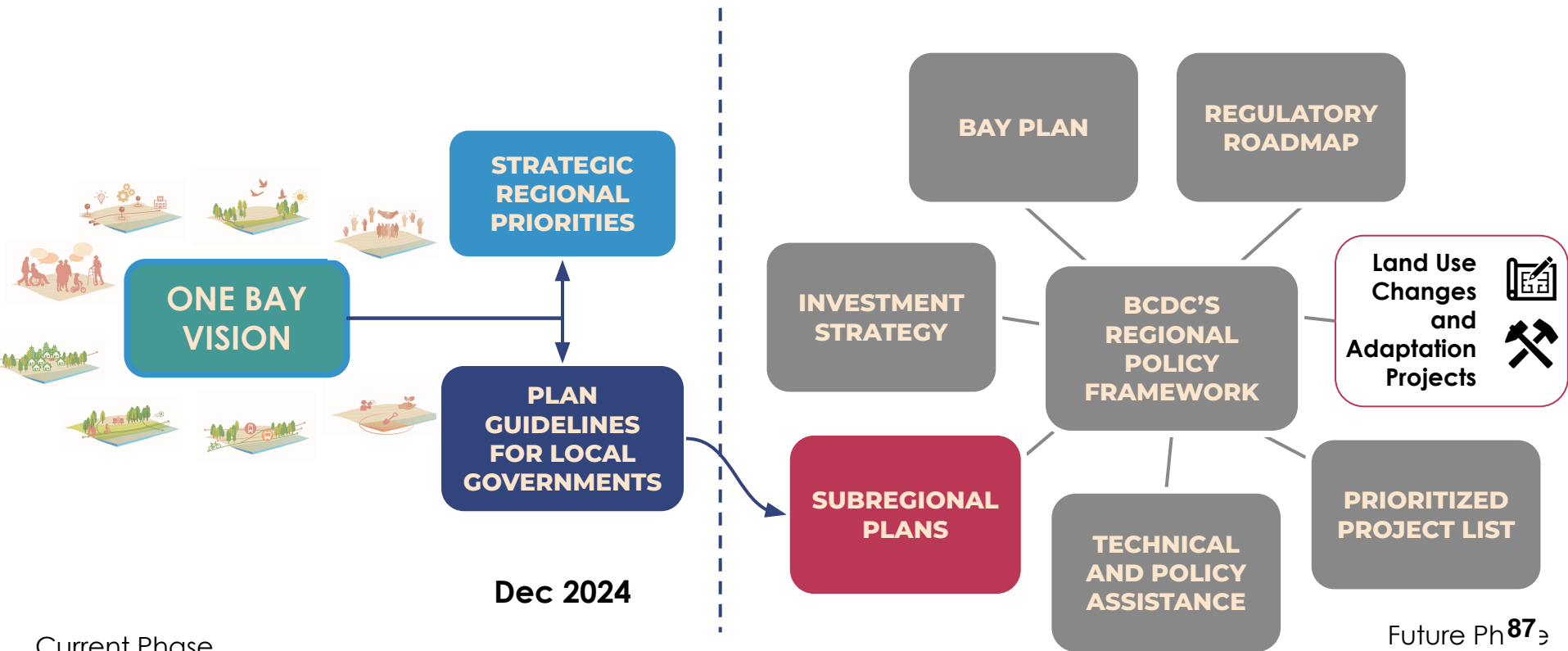
To achieve this:

- Adapt local and regional transportation systems to ensure safe and reliable connectivity by air, land, and water.
- Ensure continuity and equitable service in transit dependent communities.
- Identify and integrate multi-benefit opportunities, such as improving ecological health, increasing green infrastructure, and expanding public access, with transportation projects.
- Promote active, low emissions mobility options for environmental and economic benefit.



TRANSPORTATION & TRANSIT

HOW CAN WE MAKE THE VISION A REGIONAL REALITY?



NEXT STEPS

- Transition to **developing guidelines** and **strategic priorities**
- The RSAP is **defining subregional plans** with practitioners and stakeholders through upcoming focus groups in February/March 2024
- **Hosting a second Public Workshop in spring** on guidelines and strategic priorities
- **Planning for spring local workshops** in up to five communities with Community-Based Organization partners
- **Elected Official engagement**



THANK YOU!

Jaclyn Mandoske

Senior Climate Adaptation Planner
Bay Conservation and Development Commission
Jaclyn.mandoske@bcd.ca.gov

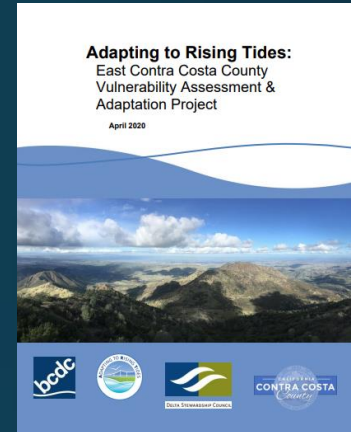
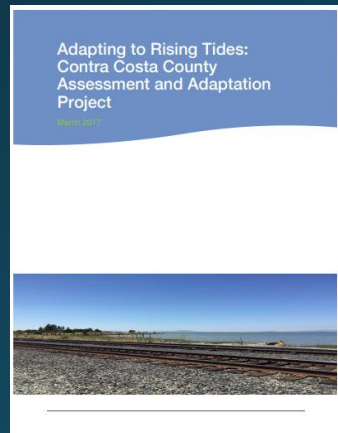


Adapting to Rising Tides (ART)

February 21, 2024

Two ART Studies for Contra Costa

West & Central
County from
Richmond to
Bay Point (2017)



East County from
Pittsburg to
Clifton Court
Forebay (2020)

Vulnerability Assessment

Sectors were analyzed through four lenses of vulnerability: information, governance, function, and physical condition

West County ART

- Business and Industry
- Contaminated Lands
- Energy
- Ground Transportation
- Housing
- Natural Areas
- Parks and Recreation
- People
- Public Services
- Seaport and Marine Oil Terminals
- Water Management

East County ART

- Agriculture
- Business and Industry
- Communities
- Community Engagement
- Critical Facilities and Services
- Delta Islands
- Energy
- Natural Areas and
- Outdoor Recreation
- People
- Transportation
- Water
- Wastewater
- Flood and Stormwater

Project Key Planning Issues

West County ART

1. Water-dependent Industries
2. Creek-side Communities
3. Access to Services
4. Ad-hoc Flood Protection
5. Jobs and Employment Sites
6. Parks and Open Space

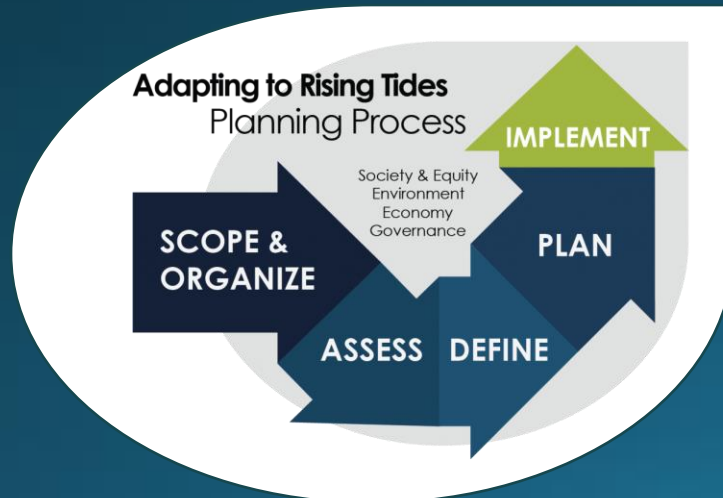
East County ART

1. Shoreline Industries
2. Vulnerable Communities
3. Access to Services
4. Ad-Hoc Flood Protection
5. Parks and Open Space
6. Levees, Reclamation and Subsidence
7. Worsening Water Quality

Adaptation Responses Overarching Themes

West County ART

1. Resilient transportation system
2. Integrated shoreline management
3. Targeted education and outreach; and
4. Improved emergency and hazard mitigation plans



East County ART

1. A collective decision-making framework to align various interests and agencies;
2. Strengthening relationships between agencies, NGOs, nonprofits, faith-based organizations, and community groups;
3. A resilient transportation and energy system;
4. Having a regional understanding and monitoring program for salinity, sea level rise, and levee stability;
5. Wetland and Delta island restoration;
6. Education and outreach; and
7. Creating a system of prioritization for improving the shoreline

West County ART Priority Actions

1. Develop and disseminate guidance to business and industry on the best practices for reducing the potential impacts of flooding and sea level rise on their facilities and the services and systems they rely on.
2. Create a public-private shoreline working group tasked with developing a plan to fund and implement integrated shoreline solutions to reduce flood risk
3. Develop a county-wide program to monitor, maintain, and repair (as feasible) at risk shorelines most in need of intervention
4. Establish a public-private partnership to better understand the consequences of flooding on commercial and industrial supply chains, employee access to job sites and the regional transportation networks goods and commuters rely on

East County ART Adaptation Responses

- Adaptation Responses for the 7 Key Planning Issues formatted by top priority adaptation action & low-hanging fruit adaptation action for near-, mid-, and long-term

Key Planning Issue #3: Access to Services		
Timeline	Priority Adaptation Response	Low-Hanging Fruit Adaptation Response
Near-Term	Conduct locally refined analyses to determine the sources of, and potential solutions to resolve, flooding that could damage or disrupt local and regional routes and nodes that are critical for emergency response and for communities to access necessary services.	Build or strengthen relationships between public agencies, private entities, nonprofit, community, and faith-based organizations, and neighborhood groups to increase flood resilience.

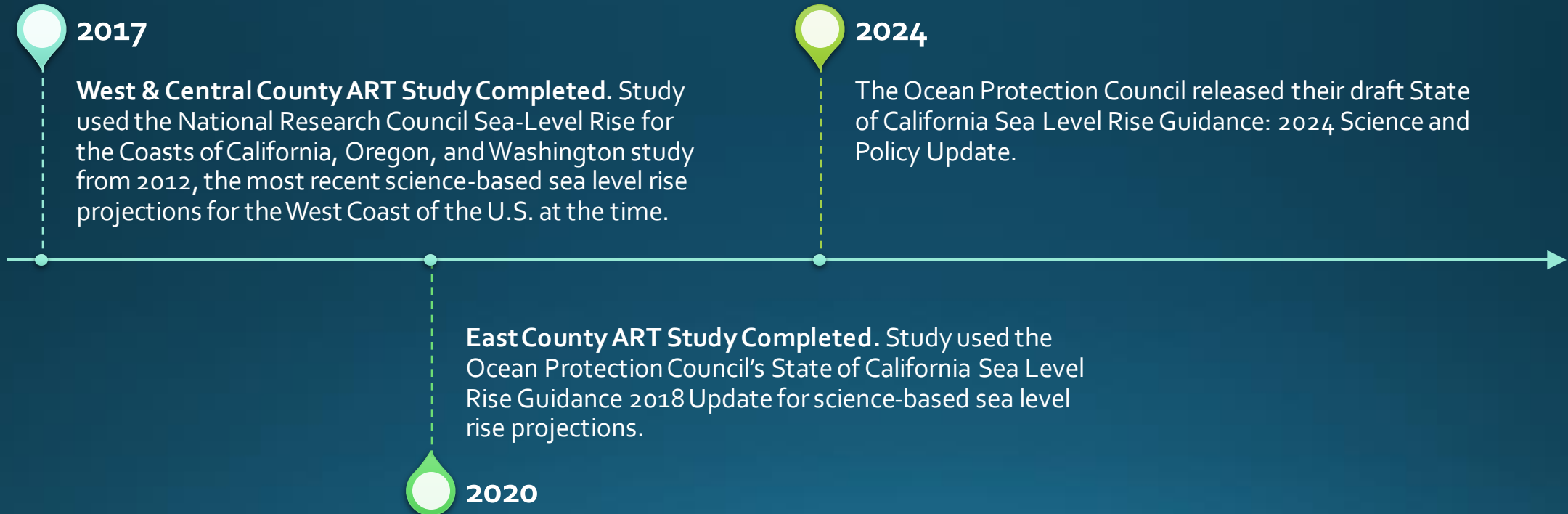
Coming out of East ART

A robust discussion at the last Working Group meeting focused on ways the ART process and SLR adaptation planning and implementation could be progressed so the implementation of some of these plans would become more realistic.

Identified hurdles to implementation:

- Need to create a core ask, clear message, and educating elected officials about ART findings
- No overarching authority to move any of the actions forward
- Continuing the working group and expanding it
- Lack of funding to do adaptation planning

Since the ART studies were completed, new (draft) Sea Level Rise Guidance has been released



Where has ART led?

- Informed the inclusion of actions related to sea level rise in the draft General Plan and Climate Action Plan
- Informed the partners and stakeholders to be included in the County's Sea Level Rise Coalition
- Provided a foundation for the pursuit of grants to develop a Contra Costa County Sea Level Rise Resilience and Adaptation Plan

Where can ART go?

- By updating the ART studies with the best available science and upcoming guidance, these vulnerability assessments can provide a deeper understanding of specific SLR risks across the county.



Lower Walnut Creek Restoration Project on May 5, 2022

Thank you!

If you have any questions, please email Ryan Hernandez at Ryan.Hernandez@dcd.cccounty.us.



CONTRA COSTA COUNTY

1025 ESCOBAR STREET
MARTINEZ, CA 94553

Staff Report

File #: 24-1119

Agenda Date: 4/17/2024

Agenda #: 4.

CONTRA COSTA RESILIENT SHORELINE AD HOC COMMITTEE

Meeting Date: April 17, 2024

Subject: Presentation on the Draft Adaptation Plan "Delta Adapts" developed by the Delta Stewardship Council

Submitted For: CONTRA COSTA RESILIENT SHORELINE AD HOC COMMITTEE

Department: DEPARTMENT OF CONSERVATION & DEVELOPMENT

Presenter: Annie Merritt - Environmental Scientist | Delta Stewardship Council

Contact: Annie Merritt | annie.merritt@deltacouncil.ca.gov <<mailto:annie.merritt@deltacouncil.ca.gov>>

Referral History:

The Delta Stewardship Council launched the "Delta Adapts" initiative in 2018 to improve resilience to climate change impacts in the Sacramento-San Joaquin Delta and Suisun Marsh. The "Delta Adapts" initiative is comprised of two parts: a Vulnerability Assessment and a regional Adaptation Plan. The Vulnerability Assessment was approved by the Delta Stewardship Council in 2021 and identifies risks posed by multiple hazards to Delta communities and a variety of regional assets. The Adaptation Plan identifies a range of actions that would improve regional resilience to climate change, including rising seas and flooding which focuses on human safety and wellbeing, with an expectation to be finalized in summer 2024. The County has participated in the stakeholder work group effort informing the "Delta Adapts" initiative, but this is the first time the Committee is receiving a presentation on the adaptation plan.

Recommendation(s)/Next Step(s):

ACCEPT the presentation on the Draft Adaptation Plan "Delta Adapts" developed by the Delta Stewardship Council.

April 2024

Delta Adapts: Draft Adaptation Plan Overview



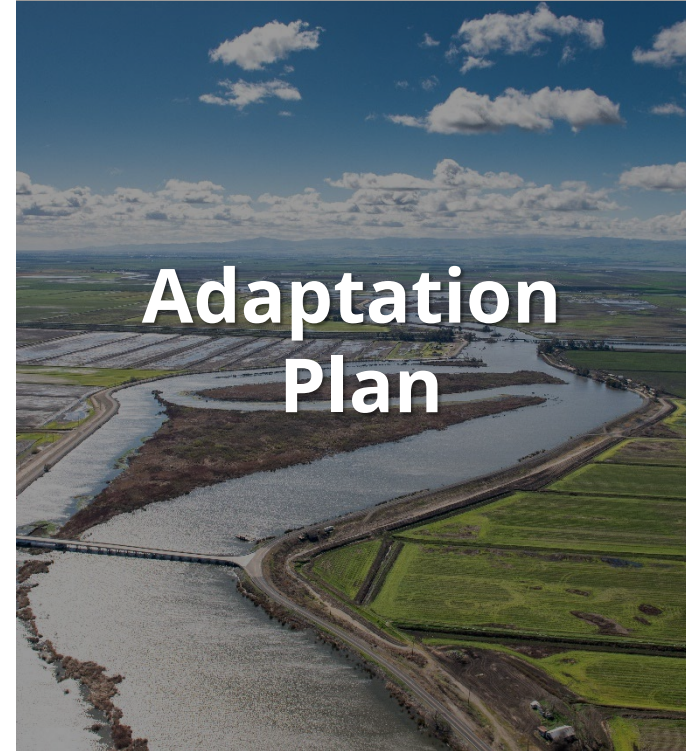
Delta
Stewardship
Council

A CALIFORNIA STATE AGENCY

Delta Adapts =



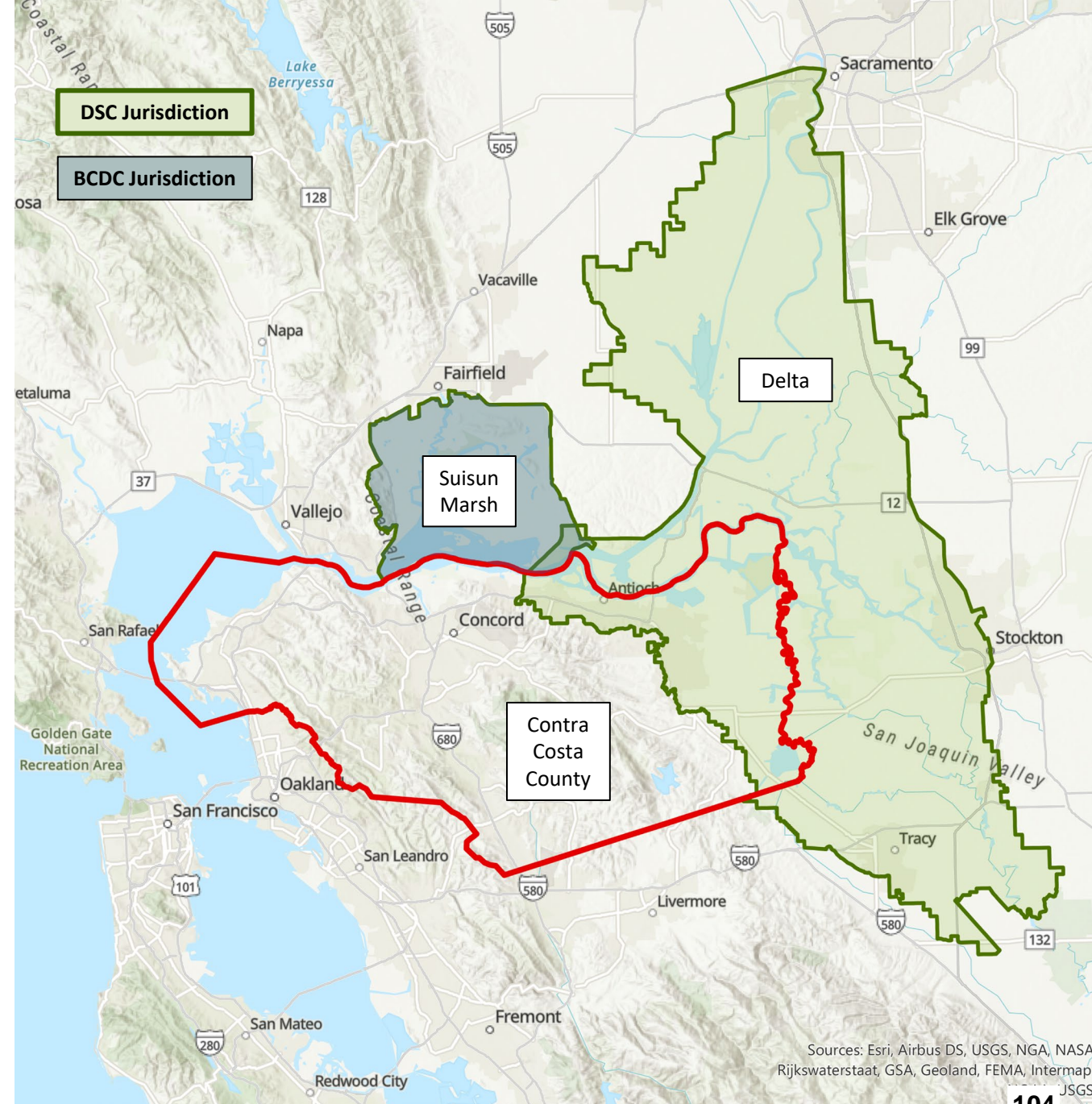
+



Overarching goal is to build climate resilience in the Delta

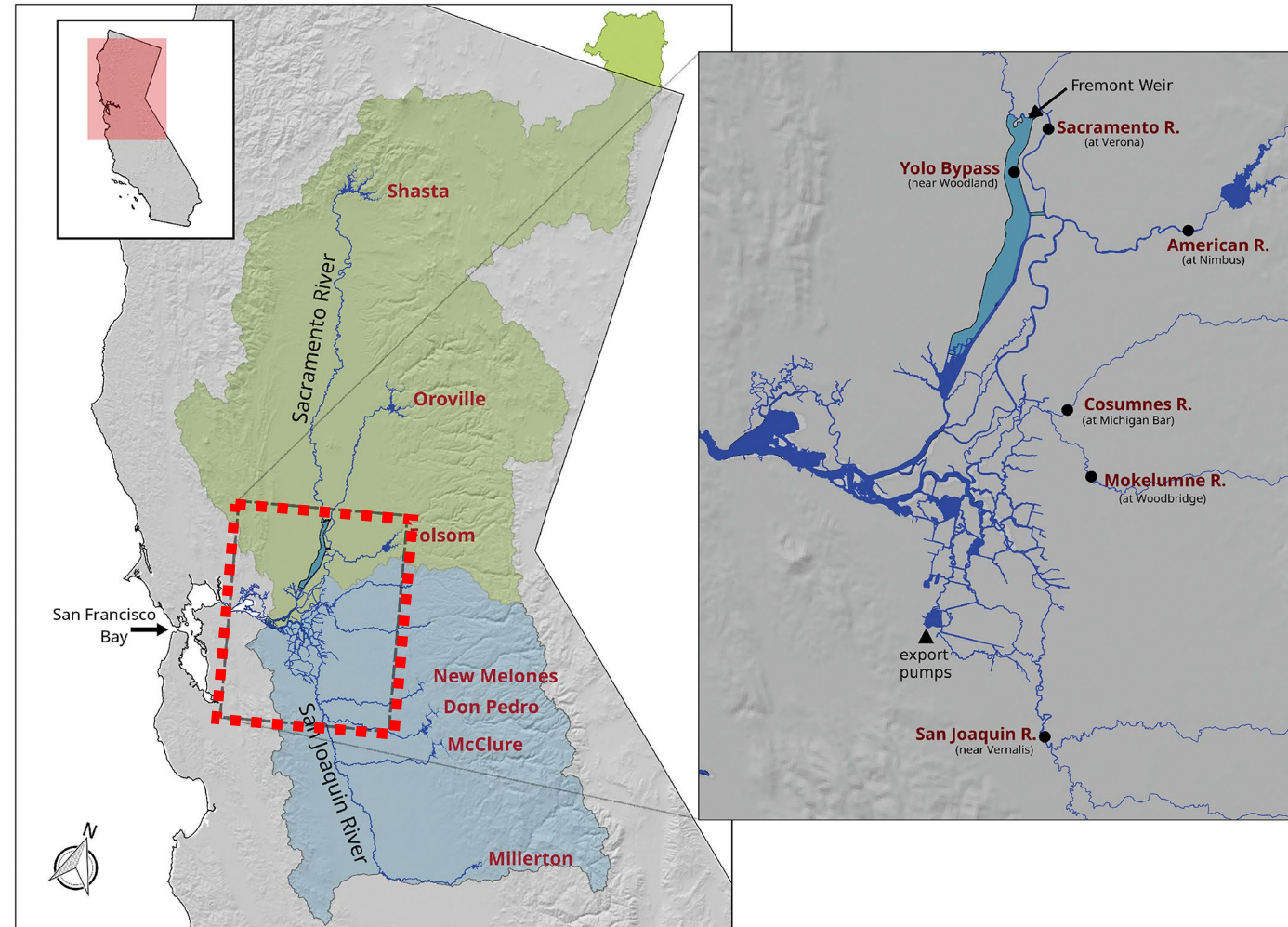
DSC Authority

- One Estuary
- BCDC and DSC have overlapping jurisdictions in Suisun Marsh



Flood Hazard Analysis

- Sea level rise
- Storm surge
- Tides
- Inflow from rivers
- Effects of climate change on river flood flows
- Possibility of high tide and storm surge occurring at same time as high inflow
- Flooding due to levee overtopping; no action scenario



Delta Adapts Modeling Analysis and Approach

- Adapt and improve upon approach developed and applied in prior work
- Considered a wide **range of plausible inputs** considering future climate change:
 - Tide and storm surge
 - Sea level rise
 - Tributary inflows
- Applied **DSM2 hydraulic model** to explore local water level dependence on input conditions
- Developed tool for rapid estimation of local water levels
- Apply **probabilistic** approach to estimate peak water levels throughout the Delta, considering uncertainty in effect of climate change on inputs

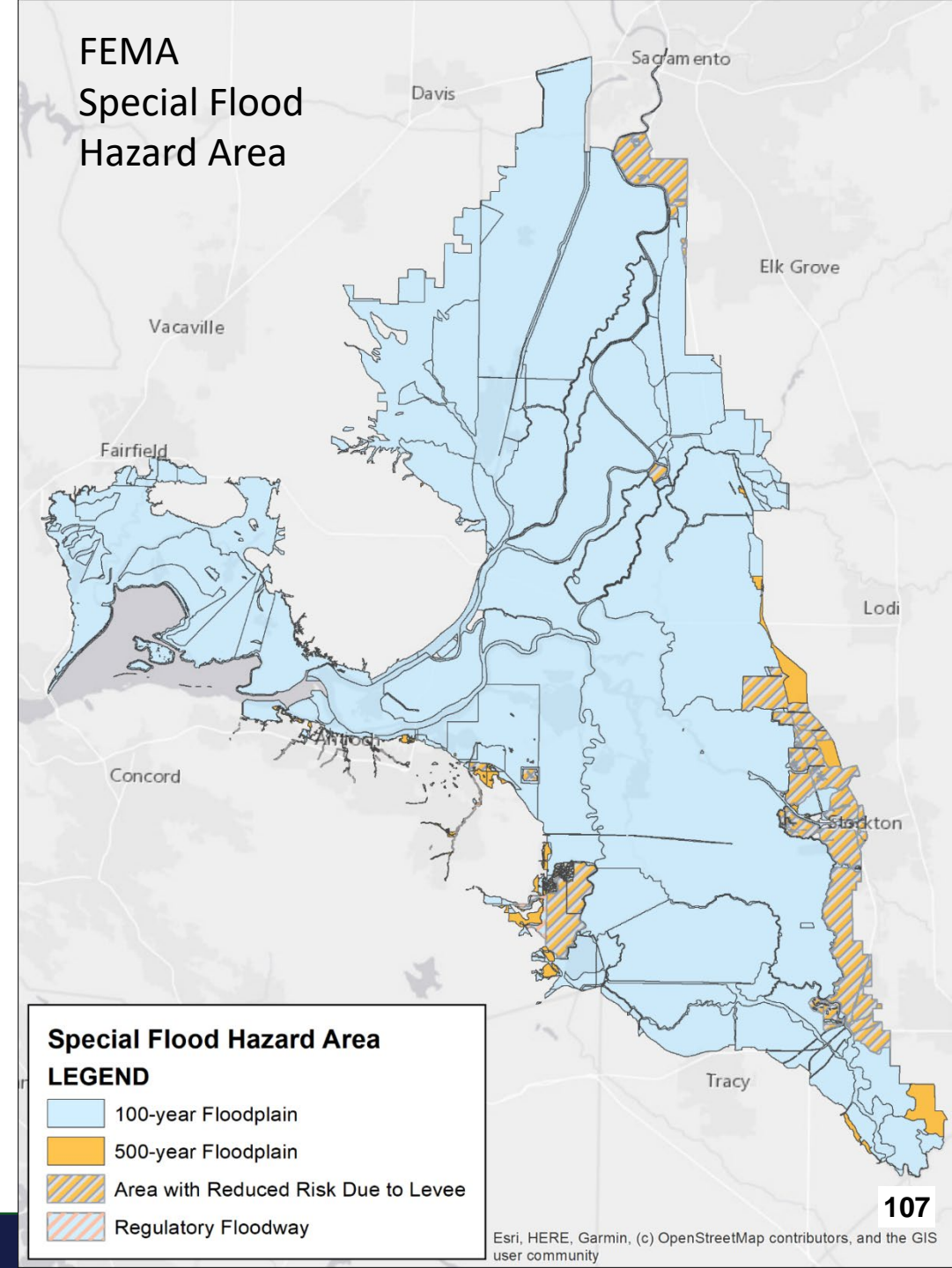
Traditional Floodplain Map

FEMA Flood Insurance Rate Map

- Flood exposure is “all-or-nothing” – in or out
- Some considerations for higher storm events and levees

Delta Adapts aims to provide more detailed understanding of flood risk

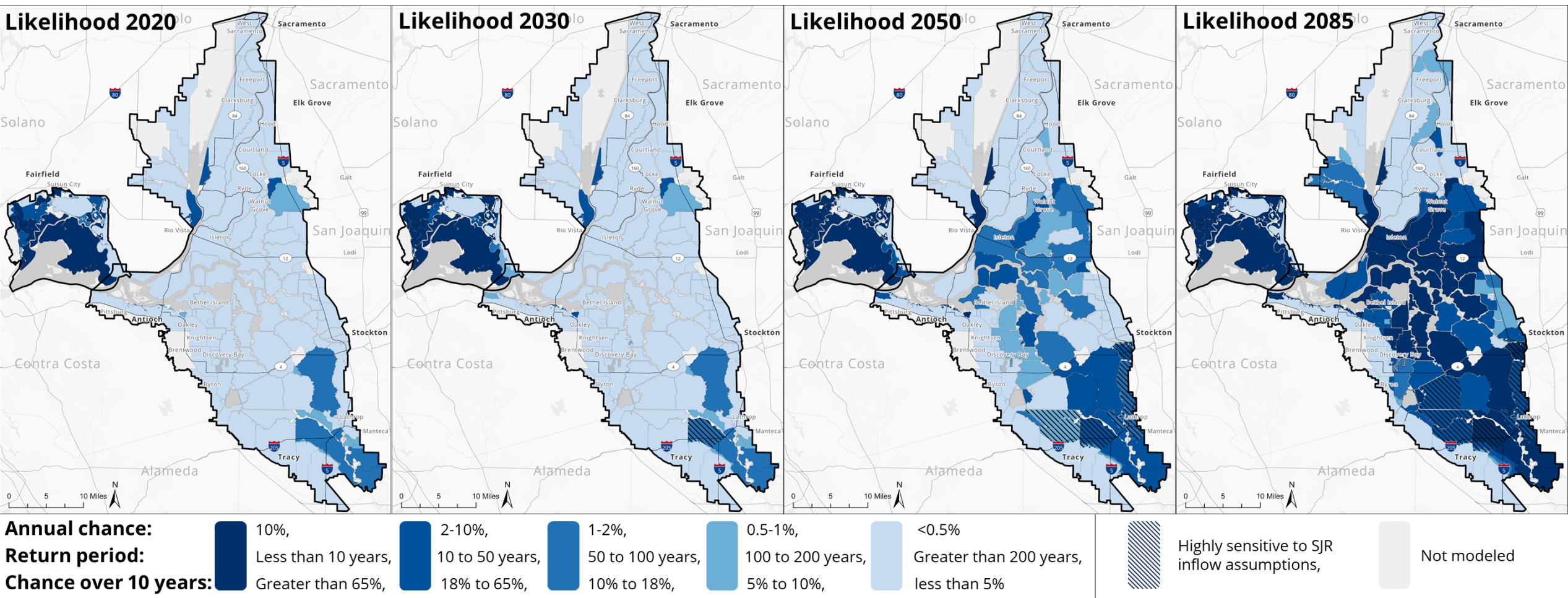
- Deterministic maps (e.g. FEMA)
- Probabilistic maps (likelihood of flooding)



Flood Hazard Scenarios

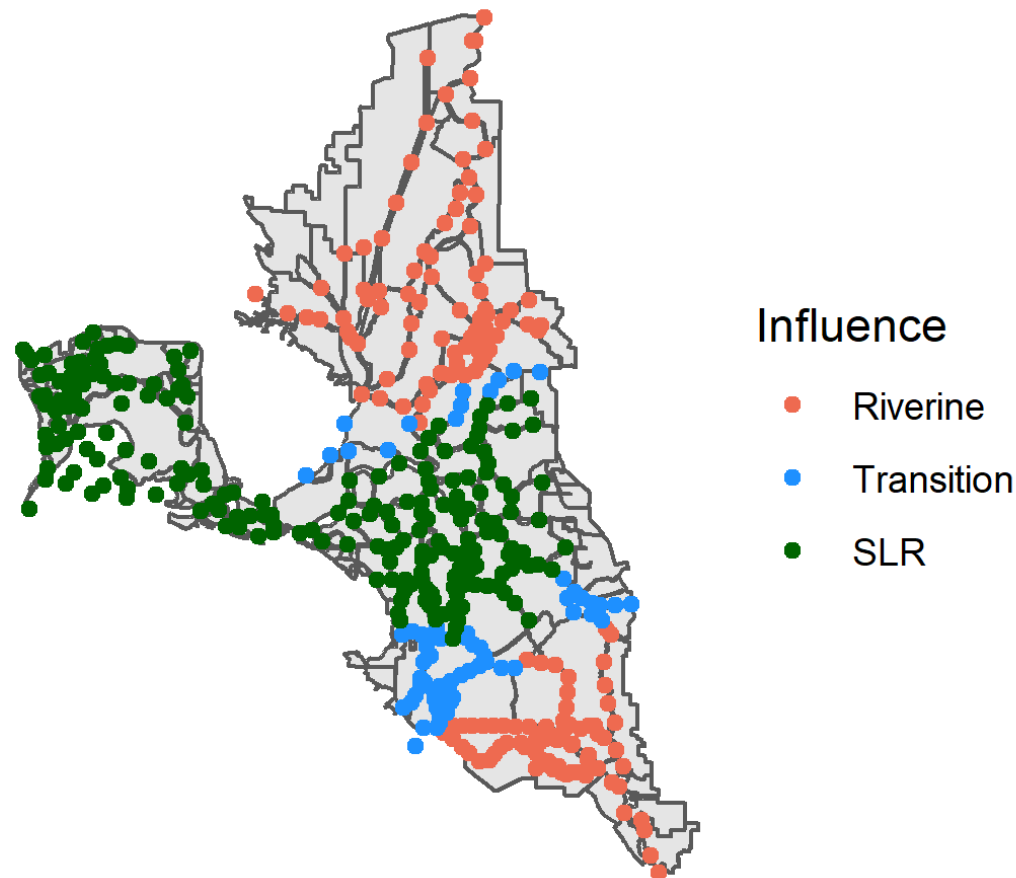
Planning Horizon	Sea Level Rise	Watershed Hydrology
Current Conditions	N/A	Historical
2030	2030 (0.2 to 0.8 ft)	Historical
2050	2050 (0.2 to 1.9 ft)	Mid-Century (2035-2064) RCP 8.5
2085	2085 (0.5 to 6.9 ft)	End-of-Century (2070-2099) RCP 8.5

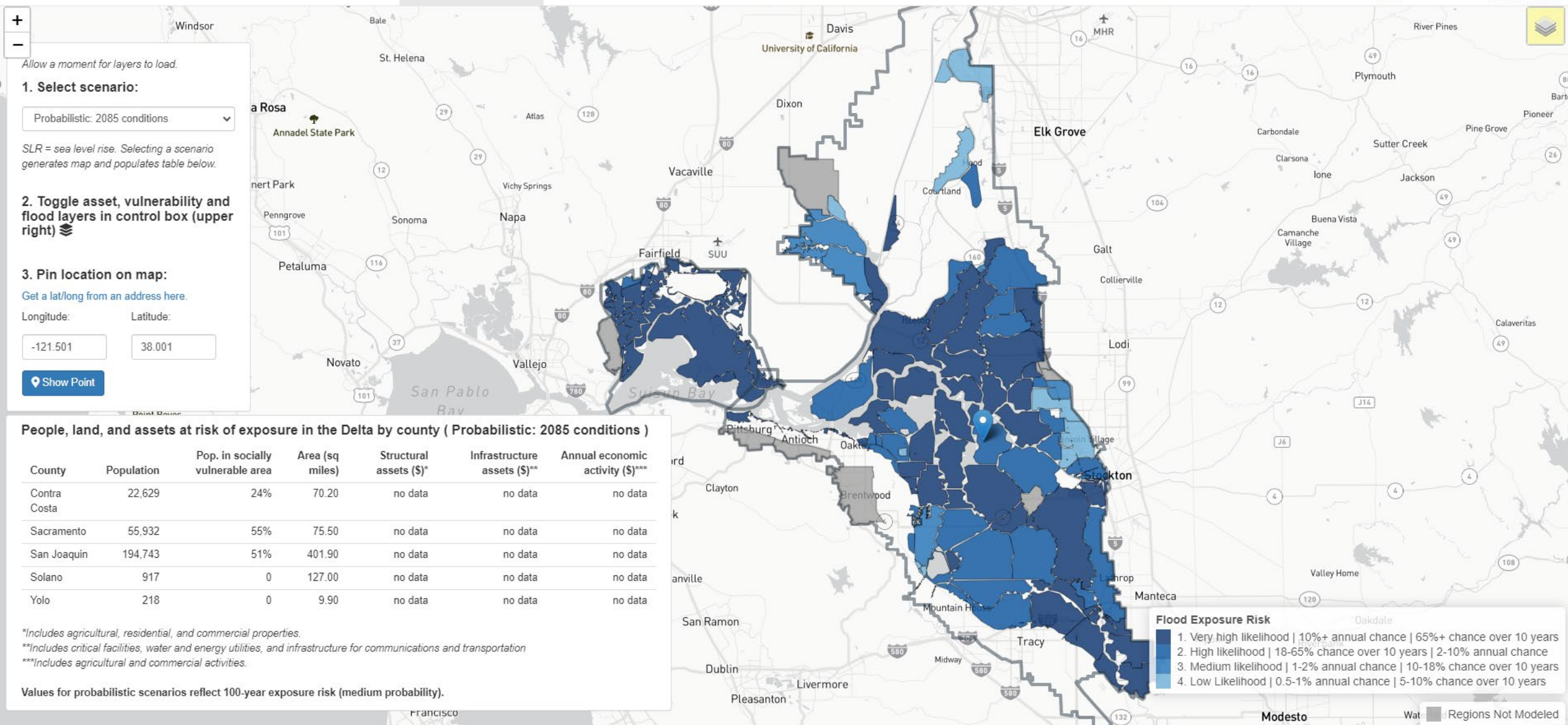
Probabilistic Flood Exposure Maps



Delta Flood Dynamics: Understanding Regional Influences

Area of Strongest Climate Change Influence
Throughout the Delta







By 2050, a 100-year flood event in Contra Costa County could impact:



- **2,955** residents
- **80%** of exposed population in Antioch and Pittsburg live in areas with high social vulnerability



- **1** school
- **1** wastewater treatment plant
- **5** parks



- **1** solid waste facility
- **5** contaminated sites

Key Climate Vulnerabilities and Adaptation Priorities in Antioch and Pittsburg

Climate vulnerabilities:



Flooding: By 2085, at least 3,180 additional people in Antioch and Pittsburg will be exposed to flooding.



Extreme Heat: Antioch and Pittsburg will likely experience ~five times more extreme heat days by 2050 than what is currently experienced.



Wildfire: Antioch and Pittsburg will likely experience more poor air quality events due to increased frequency and severity of remote wildfires.

Key adaptation priorities

- » Coordinate with other agencies on adaptation efforts.
- » Prioritize adaptation for vulnerable communities.
- » Protect shoreline infrastructure from sea level rise and climate hazards.
- » Maximize public shoreline access and increase park resilience.
- » Address drinking water issues, trash in waterways, and food insecurity.
- » Train youth on climate impacts and adaptation.

SUMMER 2024



Water Supply
Reliability



Ecosystem
Restoration

Adaptation Plan



Agriculture



Flooding

- Adaptation strategies
- Responsible entities
- Funding and financing
- Governance best practices



FLOOD RISK REDUCTION

**DELTA
ADAPTS**



Focus Area

Vulnerabilities

Climate-induced hydrologic variability and sea level rise are expected to **intensify flooding** across the entire Delta region

The Delta's **1,100 miles of levees** are designed to operate under historical conditions that did not consider climate change, which will stress the whole system

Strategies

Develop climate-informed understanding Delta flood dynamics

Strengthen and upgrade Delta levee system

Restore ecosystems for flood mitigation

Improve emergency preparedness and risk communication

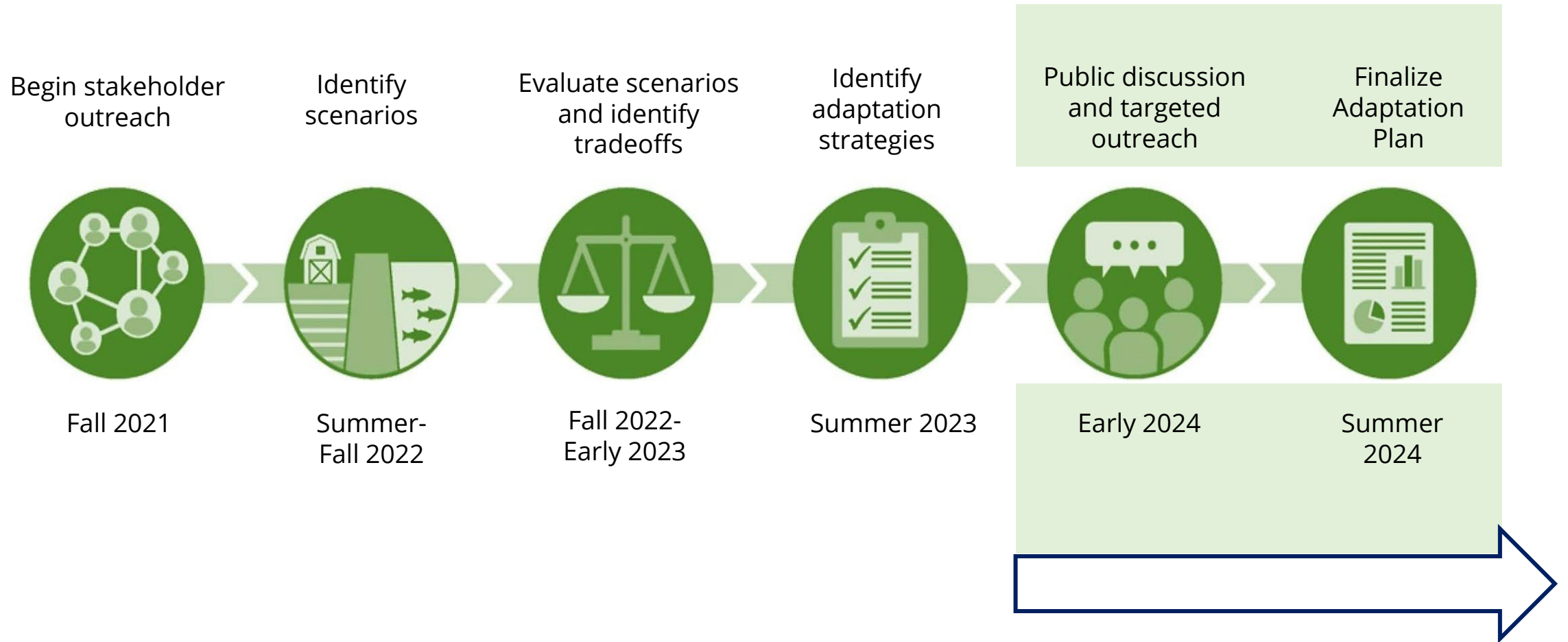
Manage and expand upstream water storage capability

Use adaptive urban planning and farming practices to reduce risk

Example Actions

- ▶ Integrate climate change into risk assessment models (FL-1-1)
- ▶ Integrate climate risks and equity into the Delta Levees Investment Strategy (FL-2-2)
- ▶ Monitor and evaluate the effectiveness of multi-benefit projects for flood risk reduction (FL-3-2)
- ▶ Raise awareness about the availability and importance of flood insurance (FL-4-6)
- ▶ Use excess floodwater to recharge underground aquifers (FL-9-2)
- ▶ Limit development in flood-prone areas (FL-7-4)

Next Steps



QUESTIONS AND DISCUSSION

Thank you

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Delta Stewardship Council



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CONTRA COSTA COUNTY

1025 ESCOBAR STREET
MARTINEZ, CA 94553

Staff Report

File #: 24-1120

Agenda Date: 4/17/2024

Agenda #: 5.

CONTRA COSTA RESILIENT SHORELINE AD HOC COMMITTEE

Meeting Date: April 17, 2024

Subject: Report on Staff Activities that support the Contra Costa Resilient Shoreline Committee

Submitted For: John Kopchik | DEPARTMENT OF CONSERVATION & DEVELOPMENT DIRECTOR

Department: DEPARTMENT OF CONSERVATION & DEVELOPMENT

Presenter: Ryan Hernandez | DEPARTMENT OF CONSERVATION & DEVELOPMENT

Contact: Ryan Hernandez (925)655-2919

Referral History:

This is a standing item of the Committee.

Referral Update:

See attached Contra Costa Resilient Shoreline Ad Hoc Committee Staff Report.

Recommendation(s)/Next Step(s):

ACCEPT the report on Staff Activities supporting the Contra Costa Resilient Shoreline Ad Hoc Committee.

Fiscal Impact (if any):

None.

**Contra Costa Resilient Shoreline Staff Report for
Contra Costa Resilient Shoreline Ad Hoc Committee
April 17, 2024**

Key activities since the Resilient Shoreline Ad Hoc Committee’s meeting on February 21, 2024, are listed below.

Grants
<ul style="list-style-type: none">• Adaptation Planning Grant Program Round 2 – Application Open. The Integrated Climate Adaptation and Resiliency Program within the California Governor’s Office of Planning and Research recently released its Round 2 Adaptation Planning Grant Program Notice of Funding Availability. The Adaptation Planning Grant Program provides awards of up to \$650,000 to help fill local, regional, and tribal planning needs, in support of identifying communities’ climate resilience priorities and the development of a pipeline of climate resilient infrastructure projects. Round 2 applications are now being accepted until June 3, 2024, and the County intends to apply.• SB 1 Grant Program – Proposal Submitted. Staff submitted an application to the California Ocean Protection Council’s (OPC) Senate Bill 1 Sea Level Rise Adaptation Planning Grant Program (SB 1 Grant Program) on March 22, 2024, for just under \$1,500,000 to support the preparation of the Contra Costa Resilient Shoreline Plan. Staff expect to hear from OPC about decisions and potential next steps by early May.• Staff continue to monitor state and federal grant opportunities and prepare to apply for funding to support the Contra Costa Resilient Shoreline Plan (Plan). The Plan would create focused adaptation strategies and implementation actions for the communities along Contra Costa County’s shoreline.
Contra Costa Sea Level Rise Coalition
<ul style="list-style-type: none">• Staff continue to have discussions with other local and regional public agencies to coordinate sea level rise planning efforts and build the Contra Costa Sea Level Rise Coalition to support the development of the Contra Costa Resilient Shoreline Plan.• Staff continue to participate in regional sea level rise adaptation and resilience efforts to ensure the County’s efforts are consistent and complementary.