

An aerial photograph of Mare Island Harbor, showing a large body of water with numerous boats docked at a marina. The surrounding area includes residential buildings, parking lots, and green spaces. The image is overlaid with a dark, semi-transparent filter.

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MARE ISLAND COMMUNITY PRESENTATION

Infrastructure and Sea Level Rise

May 4, 2023

Agenda

01 Updating the Specific Plan

02 What We Heard

03 Shorelines and Sea Level Rise

04 Infrastructure

05 Designing an Open Space Framework

06 Next Steps

UPDATING THE SPECIFIC PLAN

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Why A Specific Plan Update?



Return to Local Manufacturing



Youth Involvement



Allow More Housing with Greater Variety



Walkable, Convenient, Healthy Neighborhoods



Modernize Mobility Strategies



Respond to Regional Growth Pressures



Support Energy Independence



Promote a Diverse, Equitable and Multi-Generational Community



Increase Job Diversity



Foster Resilient Buildings, Infrastructure, and Landscapes

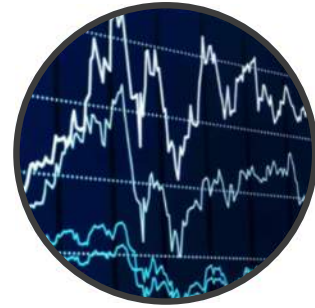
What Does a Specific Plan Do?



Focuses Capital Improvements and Public Investments



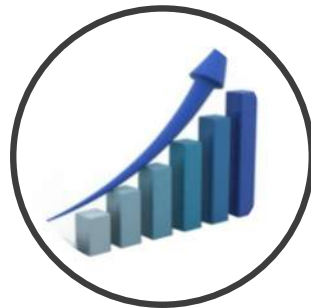
Provides Implementation Strategies



Allows for Changing Market Conditions



Guides Balanced Development



Supports Long-Term Growth

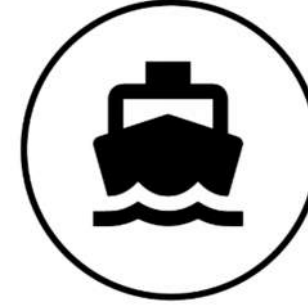


Fulfills Local Workforce and Housing Needs

What Will a Specific Plan Update Achieve?



Attract Investment



Ensure Community Benefits



Increase Tax Base and City Services



Create a Vibrant, Sustainable and Walkable Community



Amenities for All Vallejo Residents



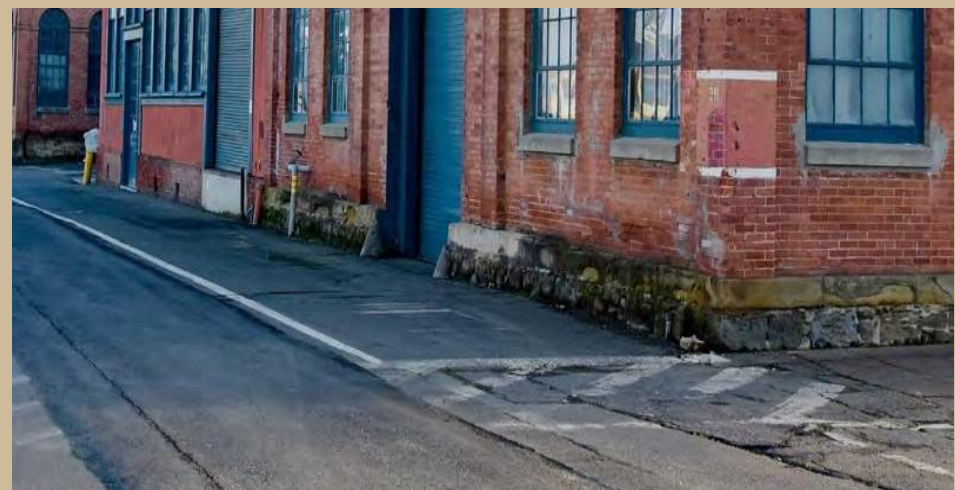
Generate Sustainable Employment Base



Enrich Community

WHAT WE HEARD

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Open Space and Complete Communities Workshops



November 30th, 2022 and February 9th, 2023 Community Workshops

Community Priorities: What We Heard



1
Natural

Preserve / Elevate the Island Ecosystem and Waterfront



2
Historic

Retain / Build on Island's Historic Spirit and Structures



3
Welcoming

Connect People via Ample Space and Ideal Locale

Enhance Connectivity and Prioritize Pedestrians



4
Innovative

Incubate Art, Food, Innovation, Productivity



5
Harmonious

Nurtures a Cross-Section of Communities of Residents, Neighbors, Workers, Visitors, Across Ages, Races, Occupations, and Ways of Life. An Island that is a Common Ground



6
Livable

Lifts Quality of Life for Residents and Neighbors, Bolstering the Sense of "Shared Progress and Success", Community, Safety, and Opportunity here for the Next Generation



Preserve and Enhance Island's Ecological Wealth

Steward Heritage, Industrial / Maritime and Waterfront History



Celebrate Island History Through Interpretive Art

Boost Public Arts, Places for Creative Retail, Food and Beverage



Create Waterfront Retail and Dining

Maximize Public Access Through the Island, Especially to Waterfront



Create Prominent Parks and Destinations

Program More Active Uses Within Parks, Plazas, Corridors



Promote Range of Housing Options that Allow for People of Different Family Types, Ages and Incomes to Co-exist in the Same Neighborhood.

Promote Community-Driven Development



Create Neighborhoods with Character, Authenticity and Convenience that Would Cater the Whole Island and Beyond

Objectives of the Presentation

- ▶ **Review Existing Conditions. Identify Opportunities and Vulnerabilities**
- ▶ **Analyze Vulnerable Areas Prone to Flooding and Future Sea Level Rise**
- ▶ **Showcase Green Infrastructure Strategies Informing Public Realm and Open Space Design and Solicit Community Feedback**



What are we Aiming at?



Resiliency and Safety

Flood Protection Measures
Stormwater Management



High Quality of Life

Clean Air
Elevated Mental and Physical Health
Sense of Place
Reliable & Highly Connective Transit Modes



Restore and Protect Natural Systems

Enhanced Biodiversity and Habitat Preservation
Improved Water Quality
Reduced Urban Heat Island Effect
Minimized Greenhouse Gas Emissions



Enhanced Sense of Community

Preservation of Culture and Heritage
Social Cohesion
Inclusive & Equitable Community
Shoreline & Waterfront Activation

SHORELINES AND SEA LEVEL RISE

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Existing Island Assets



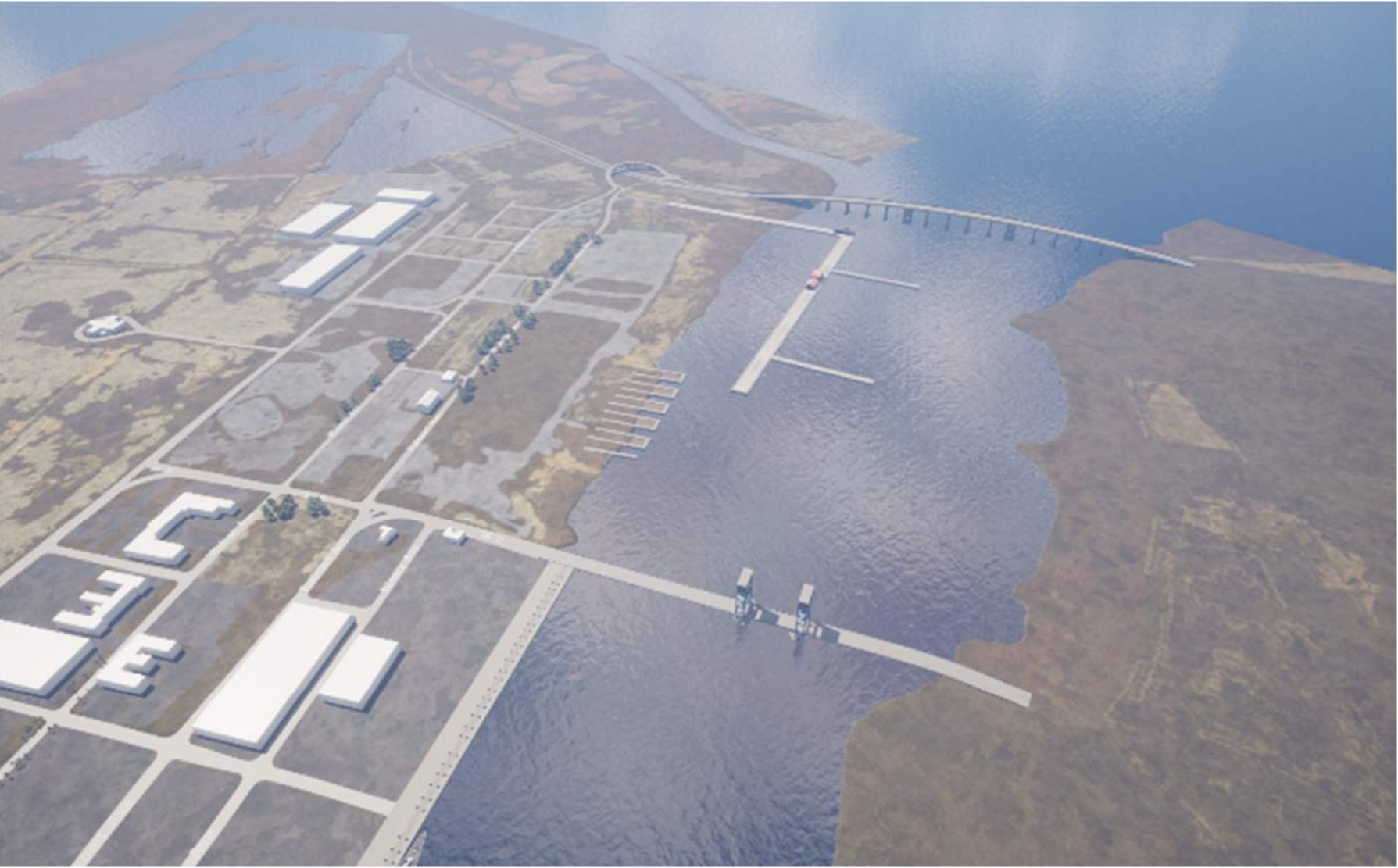
Southern Shoreline (Navy)



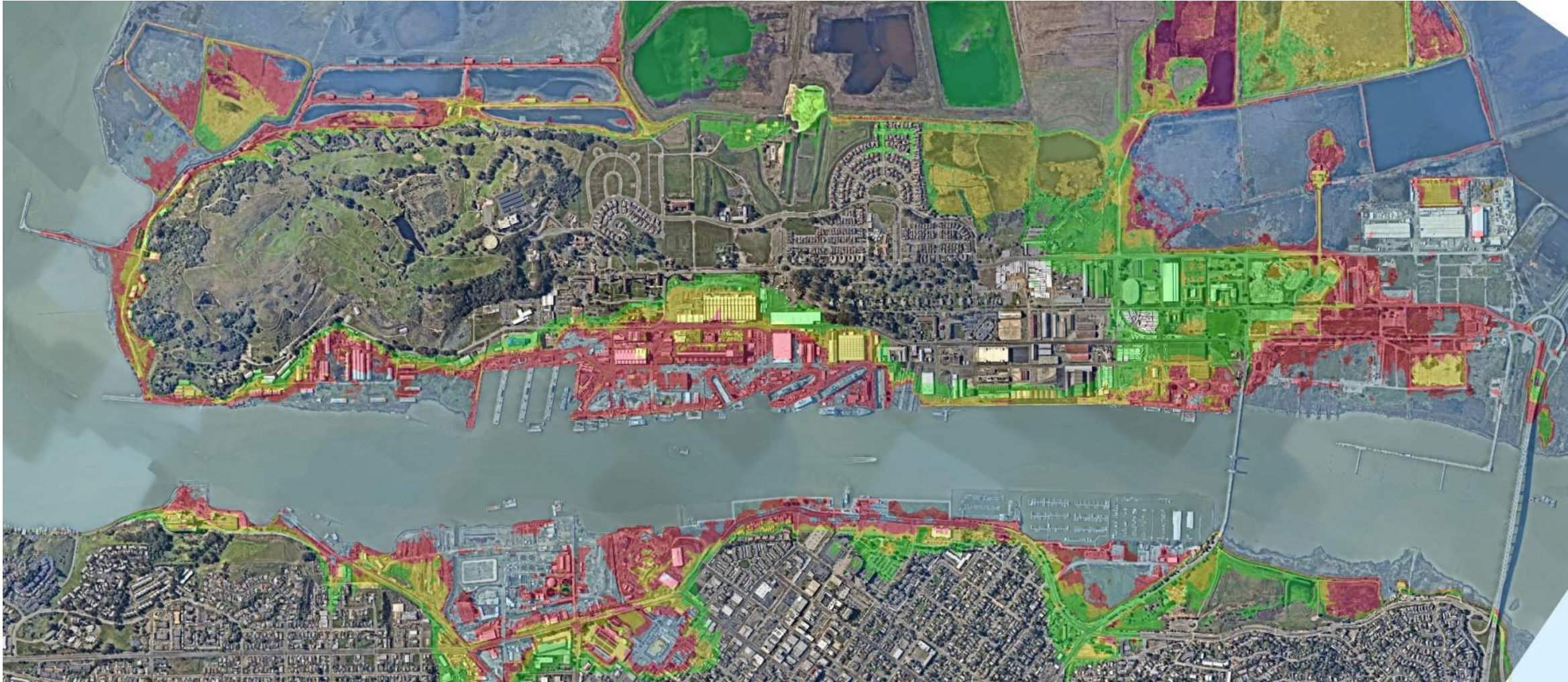
Historic Core



North Mare Island



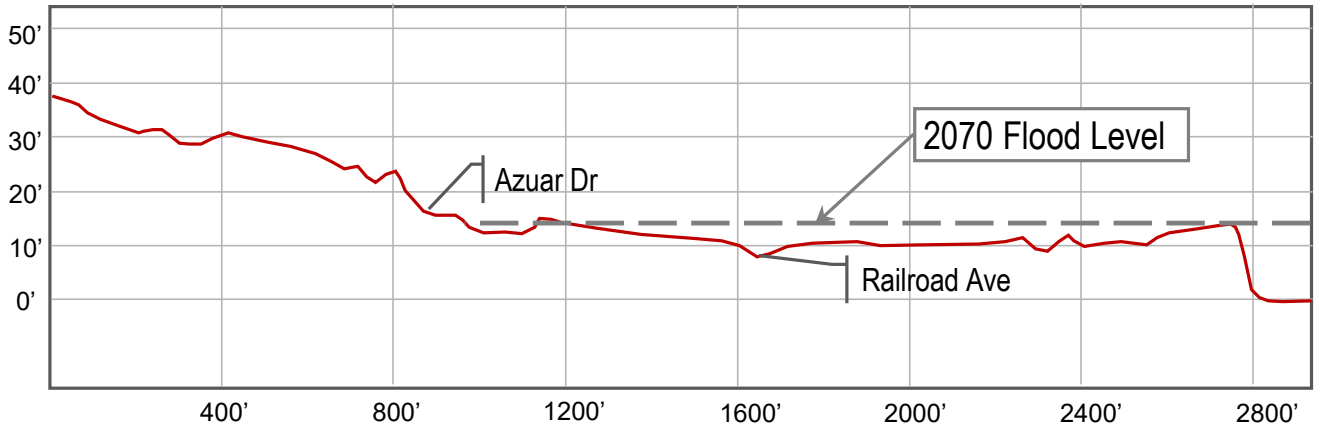
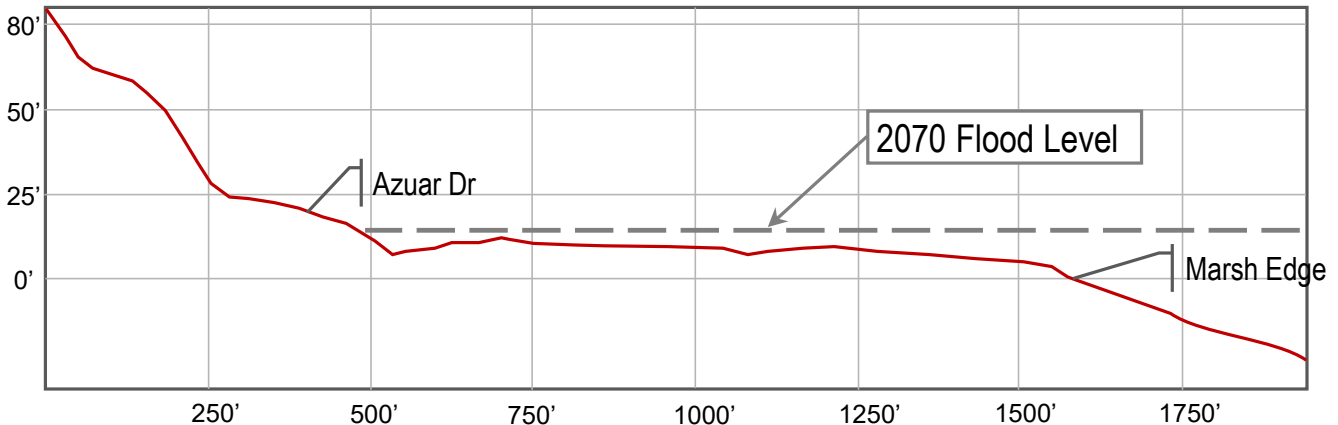
Topography & Vulnerability to Sea Level Rise



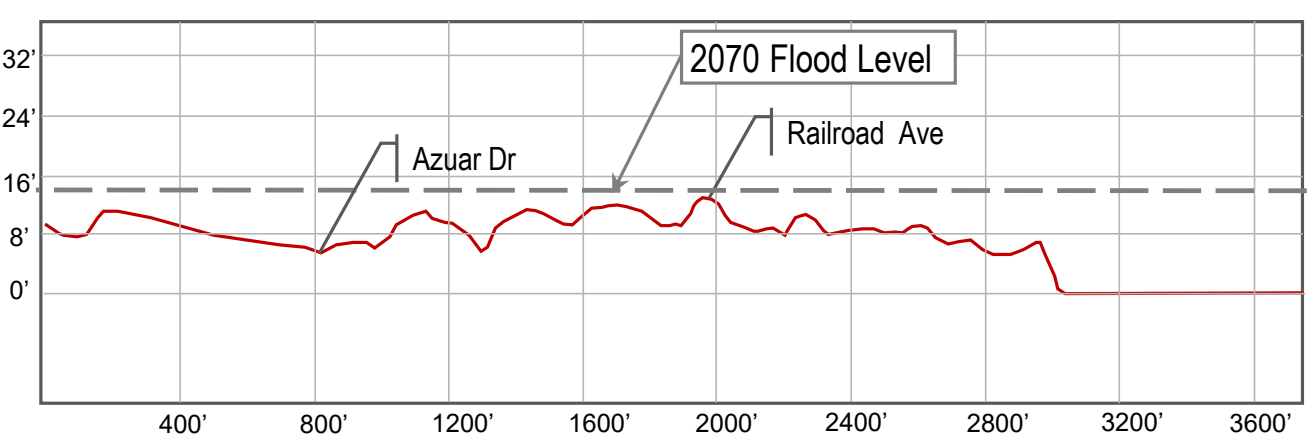
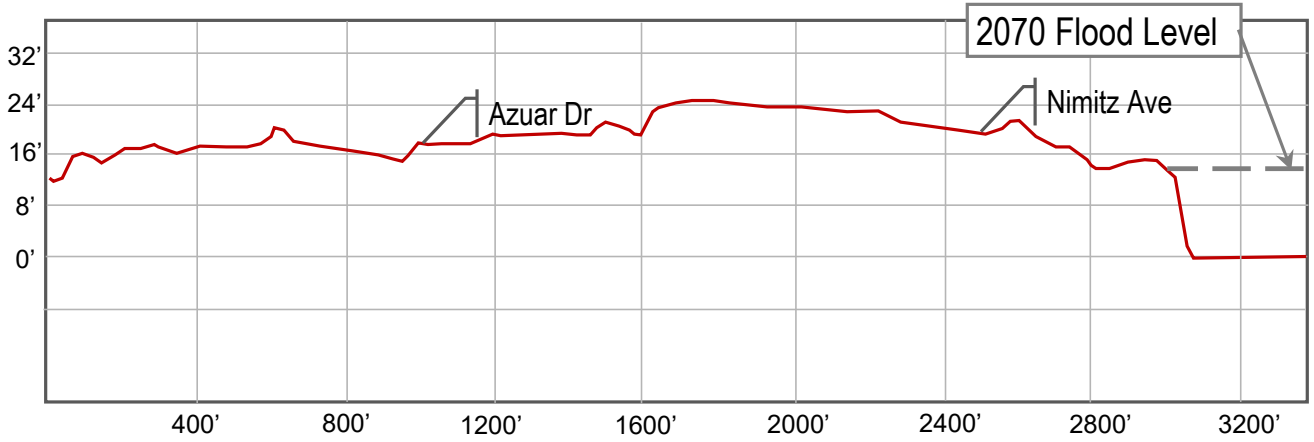
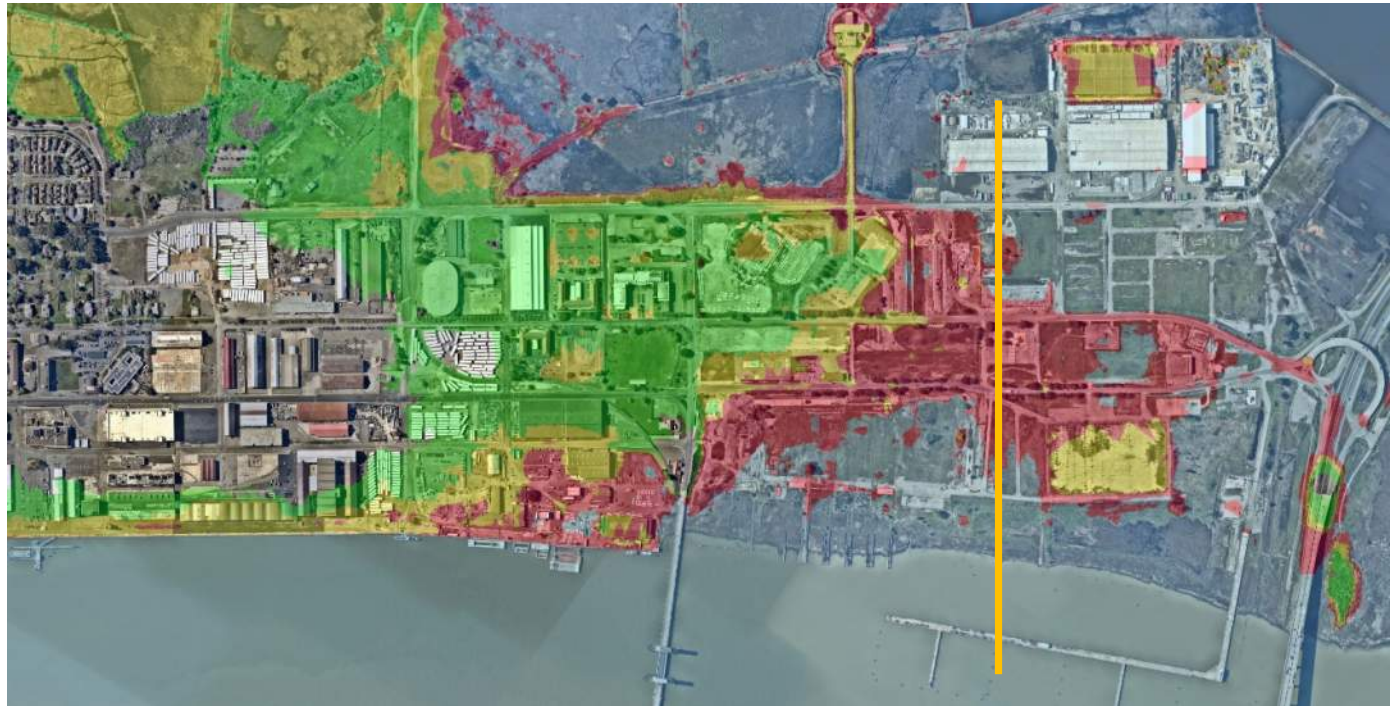
Legend

- Inundated by 2100 (+14 to +17)
- Inundated by 2070 (+12 to +14)
- Inundated by 2050 (+10 to +12)
- Current Conditions (below +10)

Site Elevations



Site Elevations



Treasure Island Case Study



Model Project Related To Resiliency

- Private / Public Partnership
- Leadership In Sustainability
- Regional Destination / Public Access
- Protect Existing & Create New Habitat Opportunities
- Precedent For Sea Level Rise Initiatives

Treasure Island - History

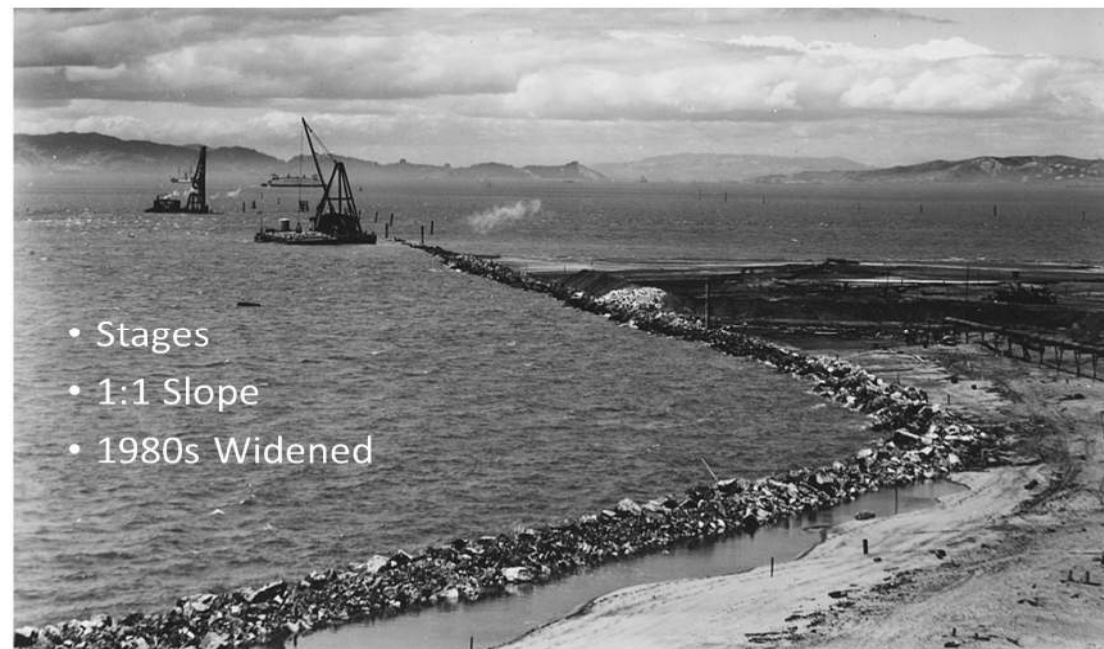
Man Made Island (1939 World's Fair)

Former Navy Base

Private / Public Partnership

Key Project Principles

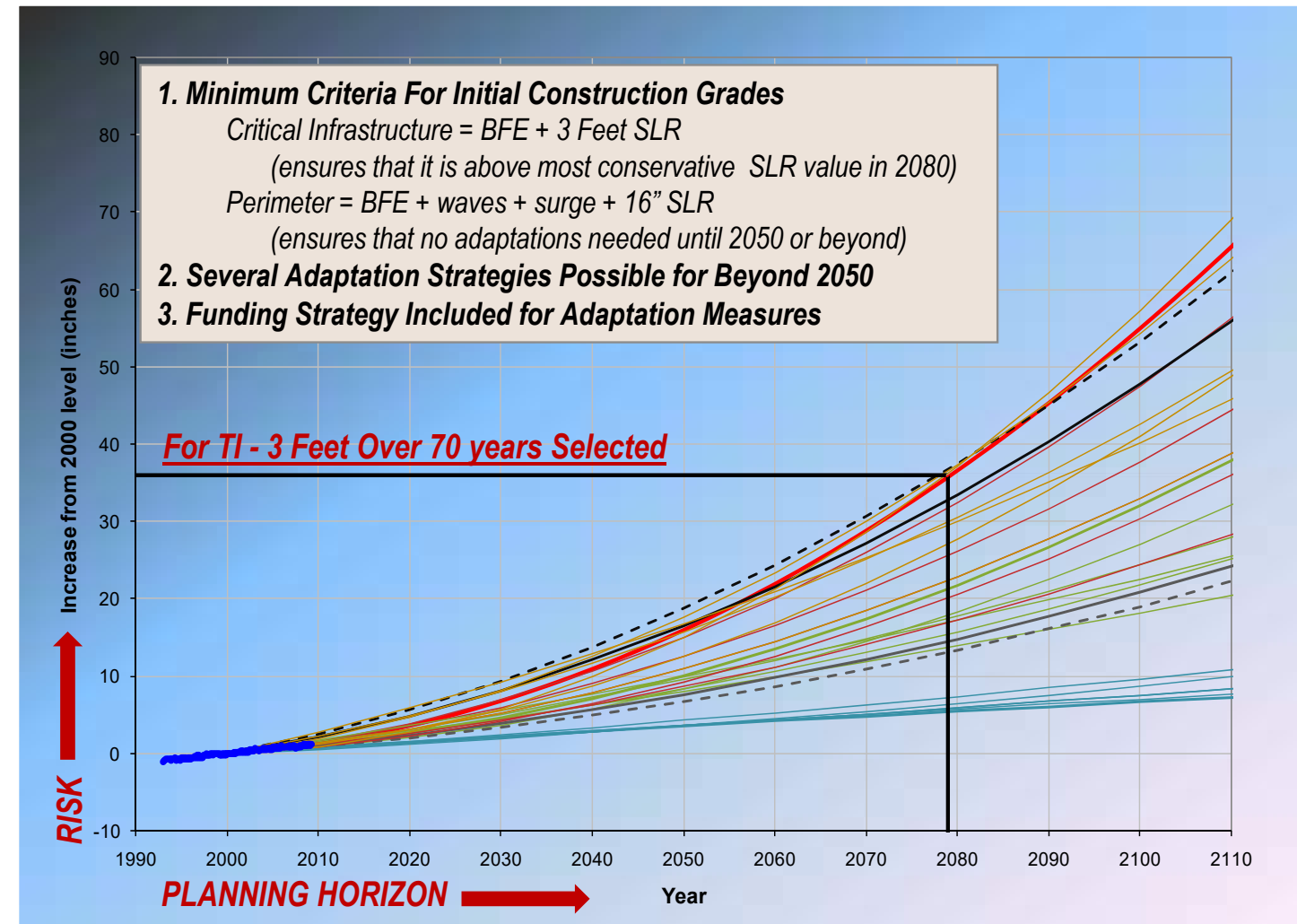
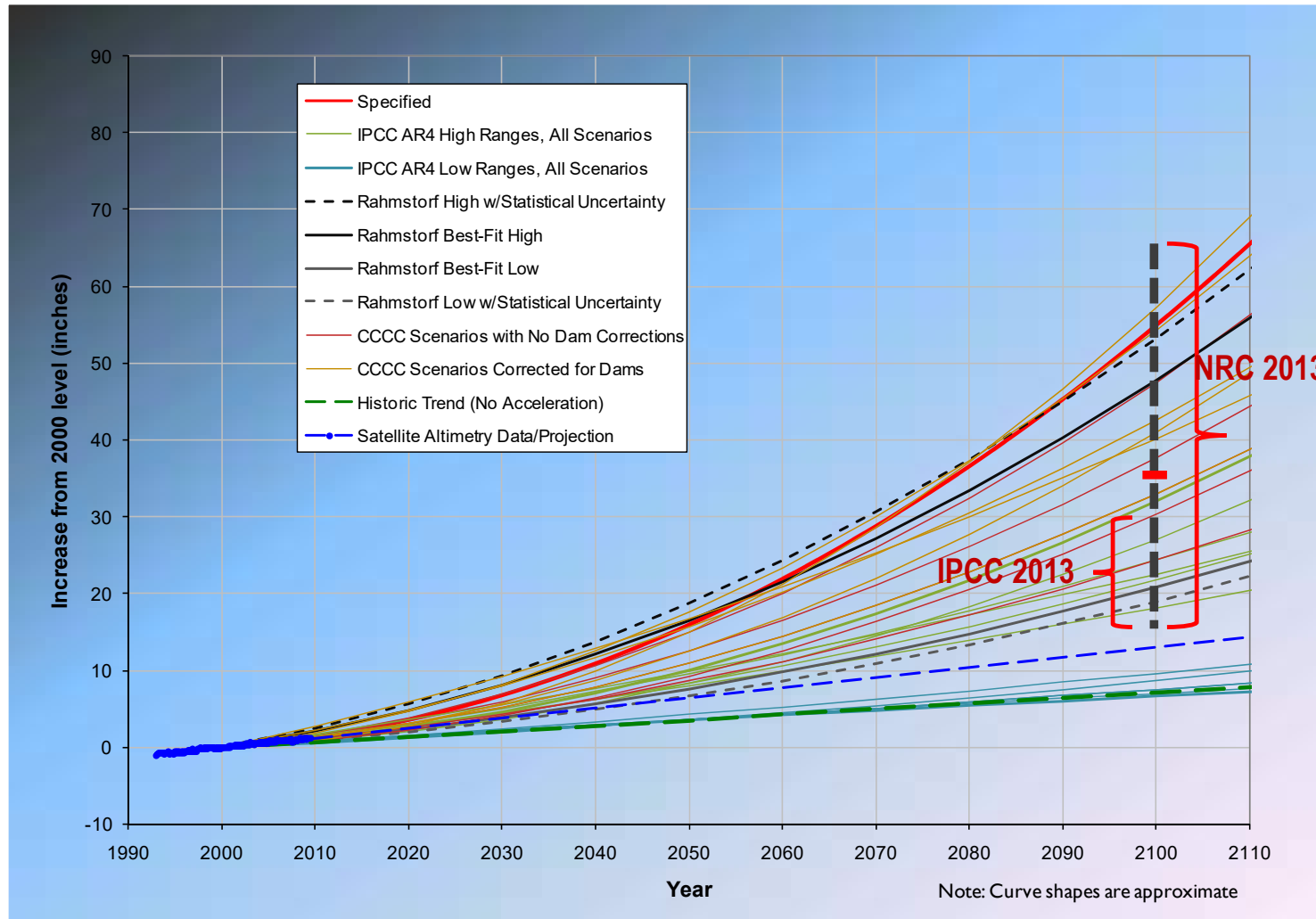
- A Unique San Francisco Neighborhood
- Establishing A Regional Destination
- Create Community Benefits
- Leadership In Sustainability



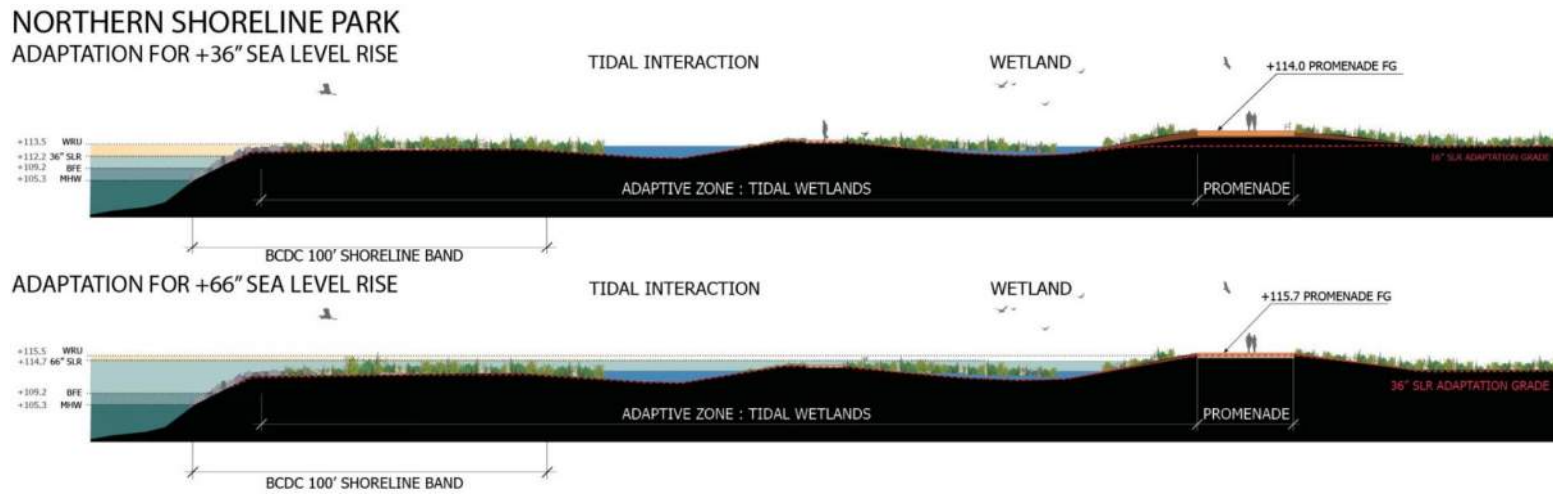
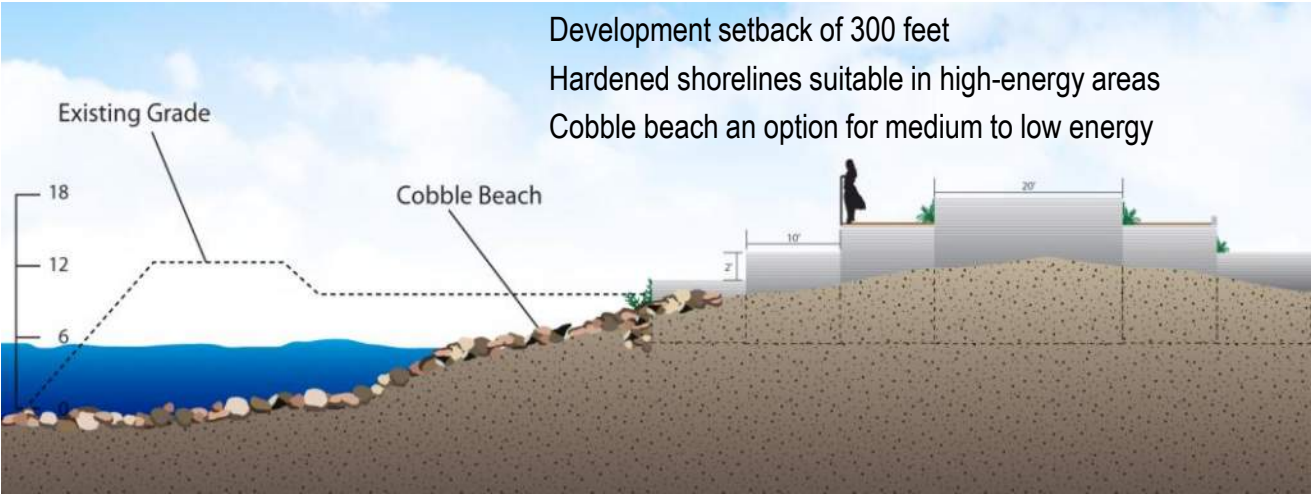
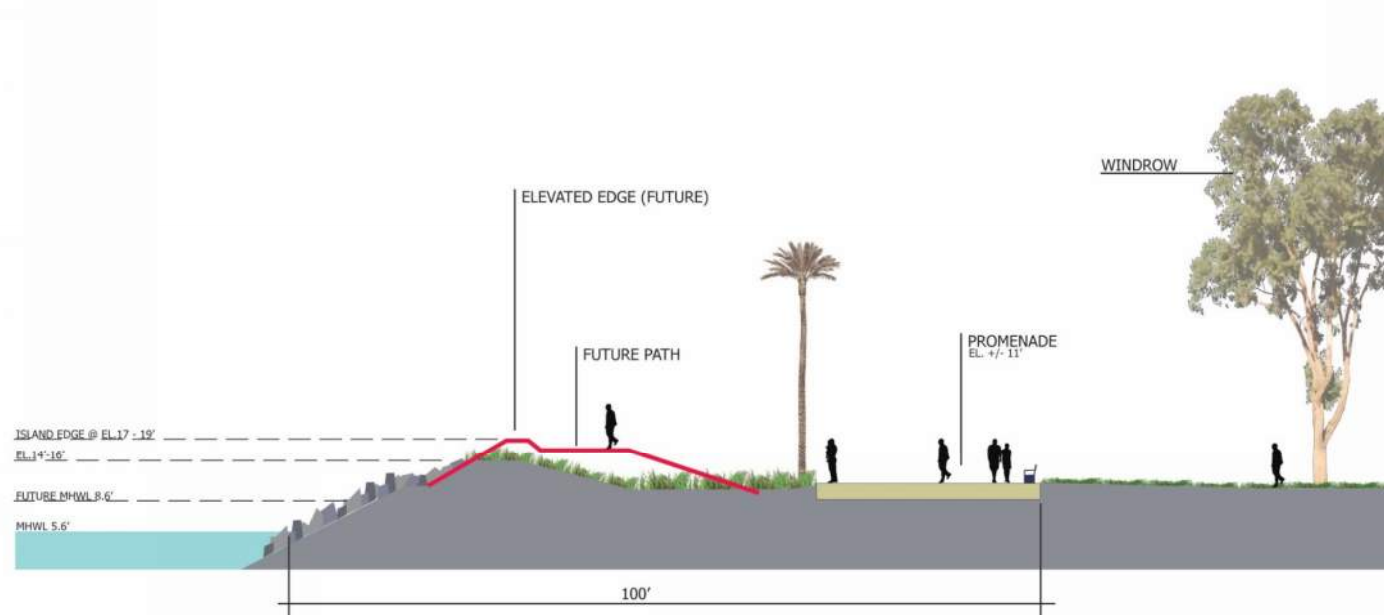
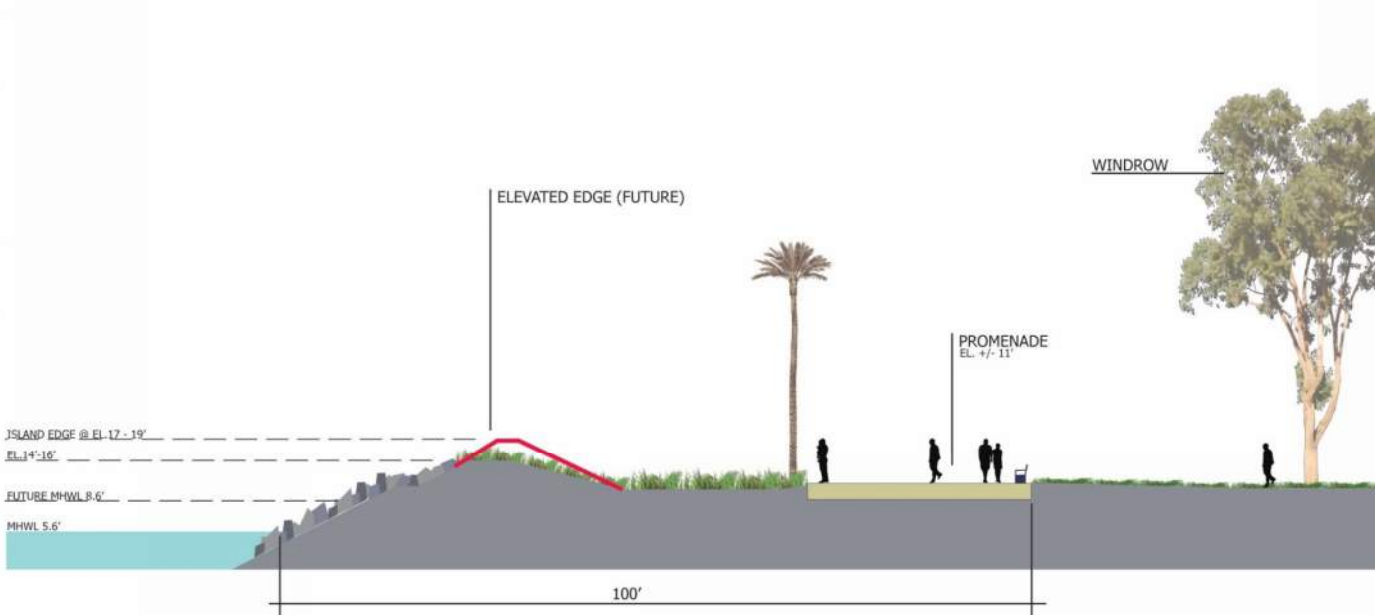
Model Project Related To BCDC Policy

- Expand Public Access
- Extend Bay Trail
- Enhance Views
- Protect Existing And Create New Habitat Opportunities
- Set Precedent For Sea Level Rise Initiatives

TI - Sea Level Rise Analyses



TI - Variety of Edge Treatments Based on Exposure/Uses



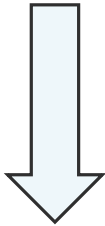
TI - Summary of Sea Level Rise Strategy



TIME (build high initially & monitor)

+ SPACE (development setbacks)

+ FUNDING (project generated)



PLENTY OF OPTIONS / COST EFFECTIVE

Brooklyn Basin Case Study

3,000+ homes

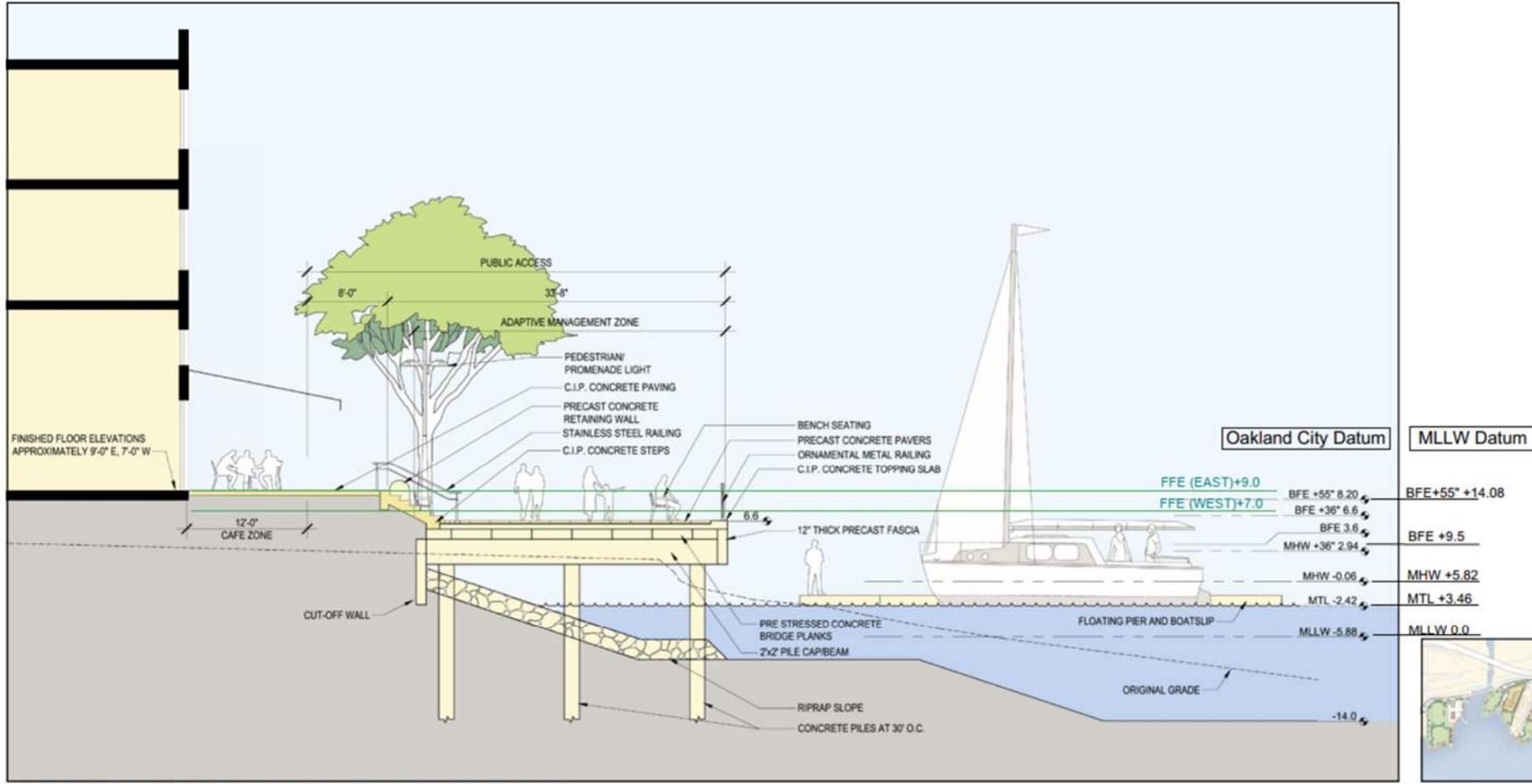
200,000 SF commercial

2 Marinas

>30 ac Parks & Open Space

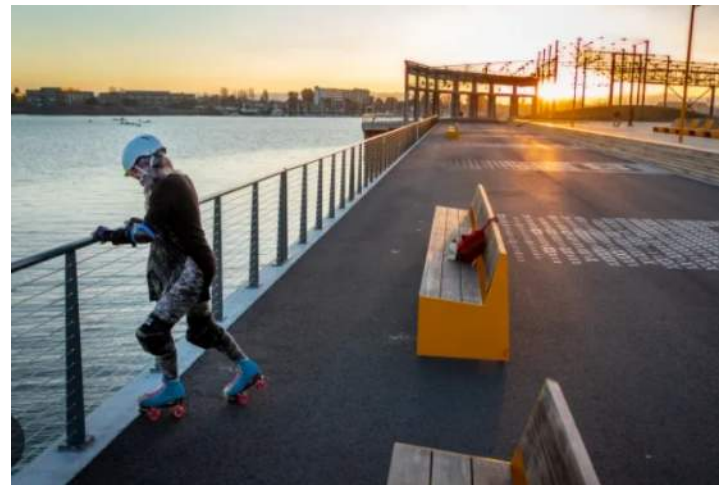


BB – Approach to Address SLR



NOTE: BASE FLOOD ELEVATION (BFE) BASED ON US ARMY CORPS OF ENGINEERS SAN FRANCISCO DISTRICT SAN FRANCISCO BAY TIDAL STAGE VERSUS FREQUENCY STUDY OCTOBER 1984

SHORELINE SECTION: CLINTON BASIN QUAY



Importance of Partnerships

These organizations influence development decisions on-island, across the river in Vallejo and throughout the Bay.

Federal



The Federal section contains four logos: the United States Navy seal, the US Army Corps of Engineers logo (a red square with a white castle), the U.S. Fish & Wildlife Service logo (a blue bird in flight over water), and the U.S. Department of the Interior logo (a bison in a landscape with a sun and mountains).

State & Regional



The State & Regional section contains six logos: California State Parks (a bear), Office of Historic Preservation (a circular seal with a bear), California State Lands Commission (a circular seal with a tree and sun), DTSC (Department of Toxic Substances Control, with a stylized sun and water), San Francisco Bay Conservation & Development Commission (bcdc, with a blue square and white text), Caltrans (with a stylized '4' logo), and California Water Boards (with a blue wave logo).

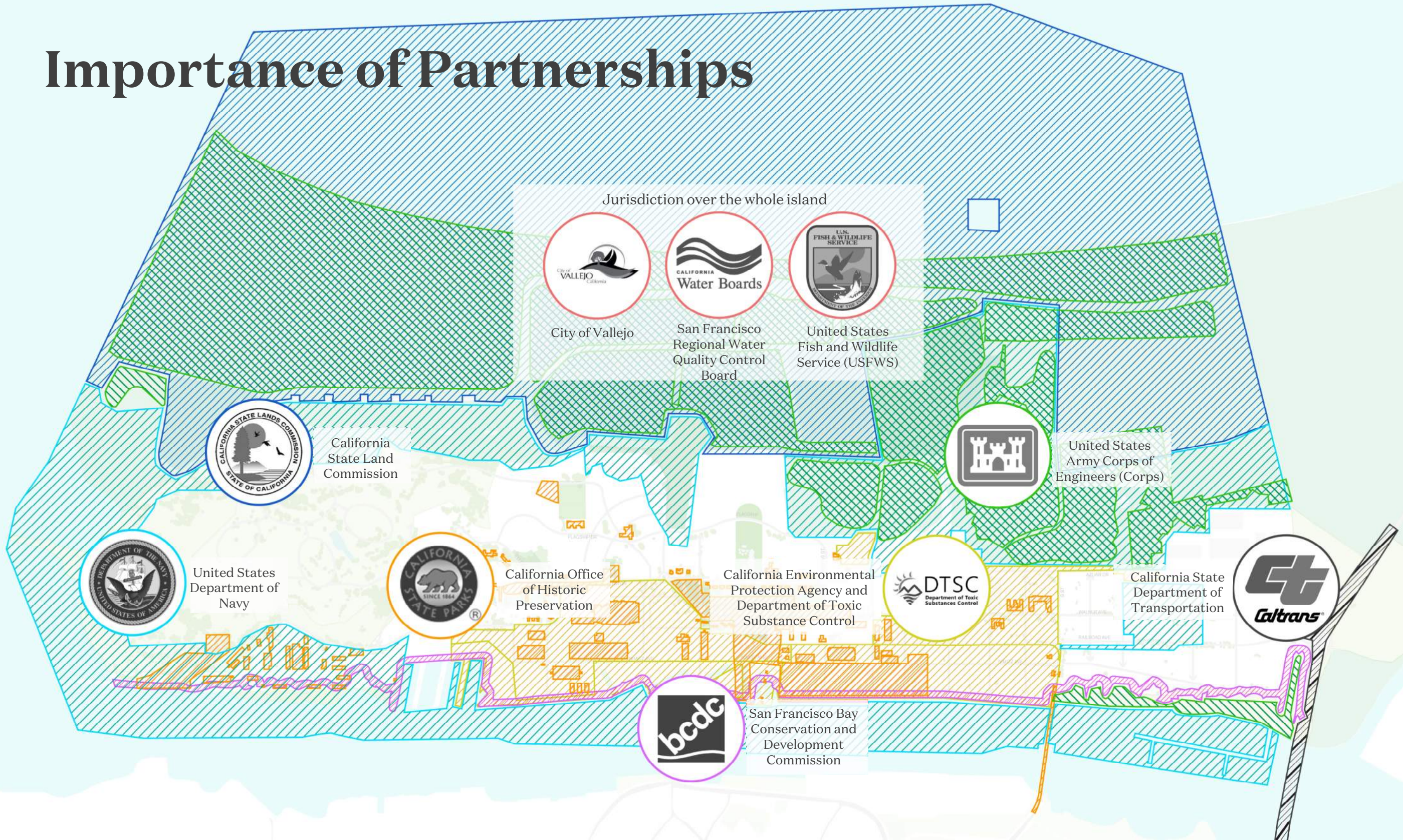
City



The City section features the City of Vallejo logo (a stylized tree and water) and a list of city-level partners: Development Agreement, City Staff, Architectural Heritage & Landmarks Commission, Planning Commission, and City Council.

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Importance of Partnerships



INFRASTRUCTURE

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Infrastructure Challenges



Droughts and Wildfires

Mare Island, CA



Air Quality

Vallejo, CA



Floods

Highway 37



Earthquakes

Napa, CA

Aspirational Goals



Reclaimed Water

Droughts and Wildfire Preparedness



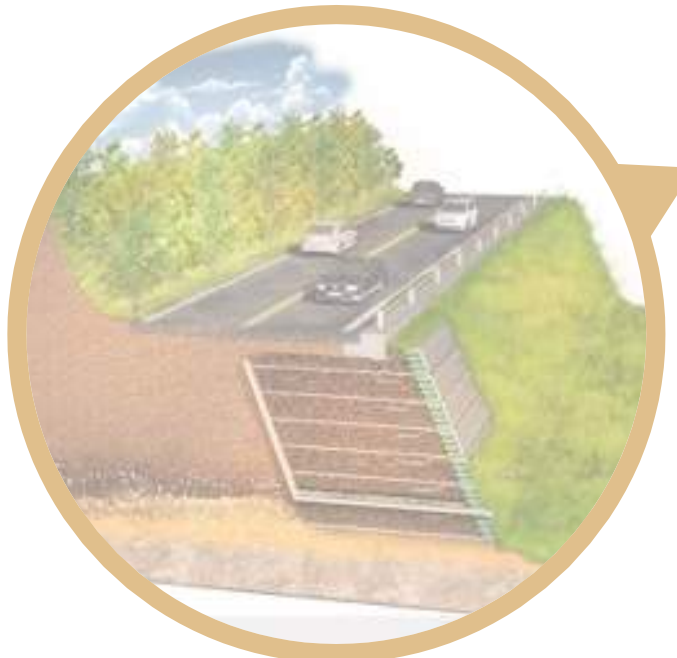
Solar Panels and Electric Vehicles

Air Quality



Flood Protection Measures

Flood mitigation



Soil Stabilization

Earthquake Resiliency

Designing Infrastructure in Support of Island Values

HEALTH

Walkable
Active Aging
Open Space
Livability
Spaces for Play
Quality of Life

ECONOMY

Employment Diversity
Public Private Partnerships
Promote Small Businesses
Community Co-Investment
Investment Opportunities
Start-Up Culture

EQUITY

Prioritizing People
Culture & Heritage
Multi-Generational Uses
Mix of Housing Types
Improved Public Access

ENVIRONMENT

Preserve Open Spaces
Protect Dark Skies
Retain Tree Canopy
Enhance Views
Resilient Infrastructure

Infrastructure & the Specific Plan

OLD (1999)



NEW (2023+)

MARE ISLAND SPECIFIC PLAN

Vallejo • California

Adopted by the Vallejo City Council
March 30, 1999

Infrastructure Sections

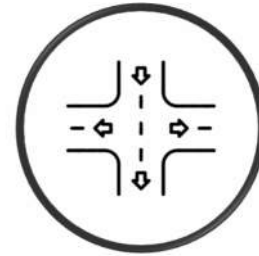
5.	Transportation
5.1	Streets
5.2	Transit
5.3	Bicycles and Pedestrians
5.4	Trucks and Rail
5.5	Barges
3.6	Aviation
5.7	Off-Island Improvements
6.	Infrastructure
6.1	Water
6.2	Sanitary Sewer
6.3	Storm Water
6.4	Electric
6.5	Natural Gas
6.6	Telephone
6.7	Alternate Systems

Master Infrastructure Plan



Flood Protection & Site Grading

- Sea Level Rise & Adaptive Management
- Geotechnical Considerations
- Value Engineering Opportunities



Street System

- Existing On-Site Street System
- Proposed On-Site Street System
- Proposed Transit System
- Proposed Off-Site Street Improvements



Parks & Open Space

- Existing Park Facilities
- Greening Plan
- Proposed Open Space Framework



Wastewater

- Existing Wastewater System
- Proposed Wastewater System



Potable Water

- Existing Potable Water System
- Proposed Potable Water System
- Value Engineering Opportunities



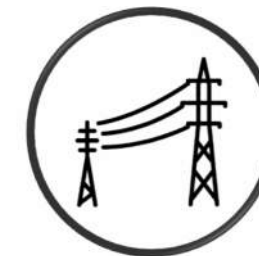
Stormwater System

- Topography & Precipitation
- Impervious & Development Areas
- Soil Characteristics & Groundwater



Recycled Water

- Existing Recycled Water System
- Proposed Recycled Water System
- Value Engineering Opportunities



Dry Utilities

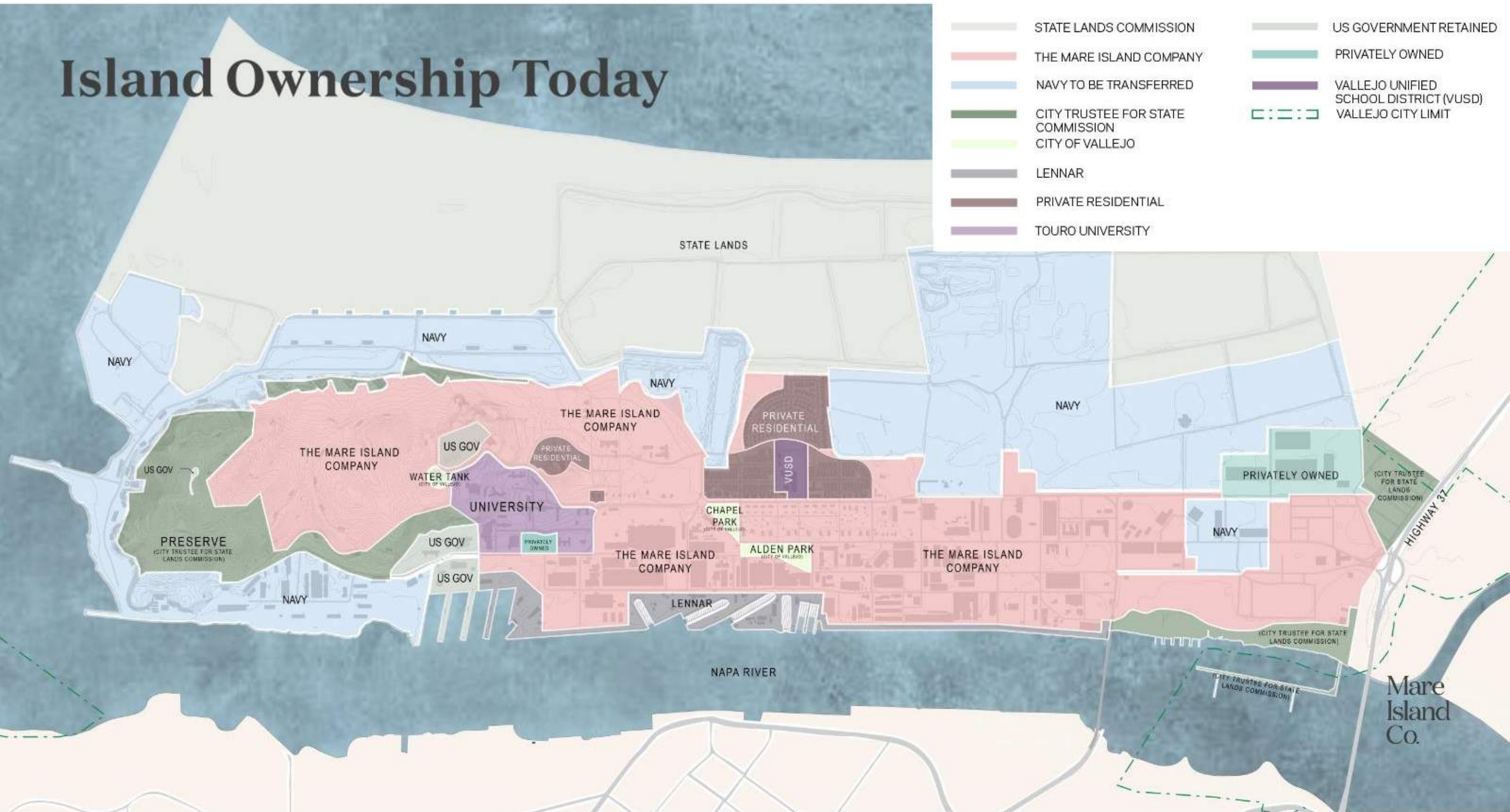
- Electric System
- Natural Gas System
- Telecommunication & Cable Television
- Street Light System



Sustainability

Island Ownership Today

- STATE LANDS COMMISSION
- THE MARE ISLAND COMPANY
- NAVY TO BE TRANSFERRED
- CITY TRUSTEE FOR STATE COMMISSION
- CITY OF VALLEJO
- LENNAR
- PRIVATE RESIDENTIAL
- TOURO UNIVERSITY
- US GOVERNMENT RETAINED
- PRIVATELY OWNED
- VALLEJO UNIFIED SCHOOL DISTRICT (VUSD)
- VALLEJO CITY LIMIT

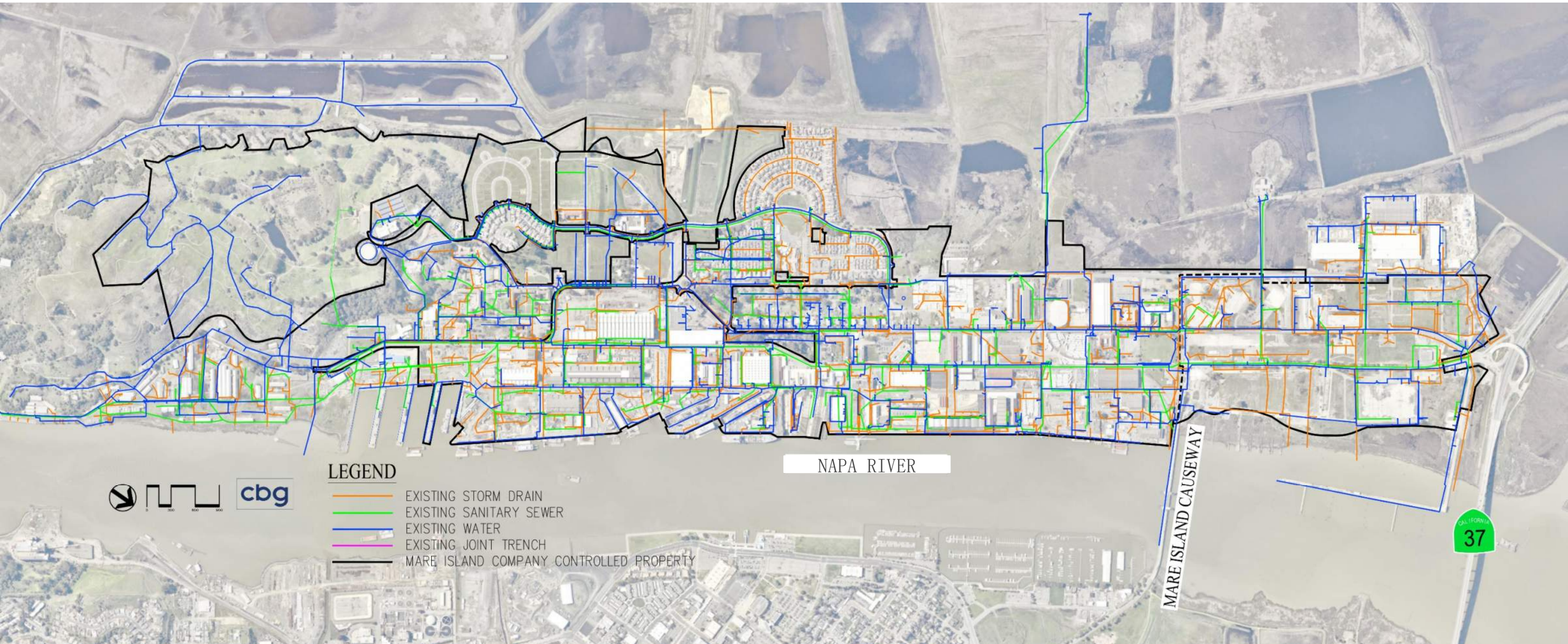


Mare Island: Overview

Mare Island Company Controlled Area



Current Infrastructure: Existing Subsurface Infrastructure



Upgrading the Aging Infrastructure

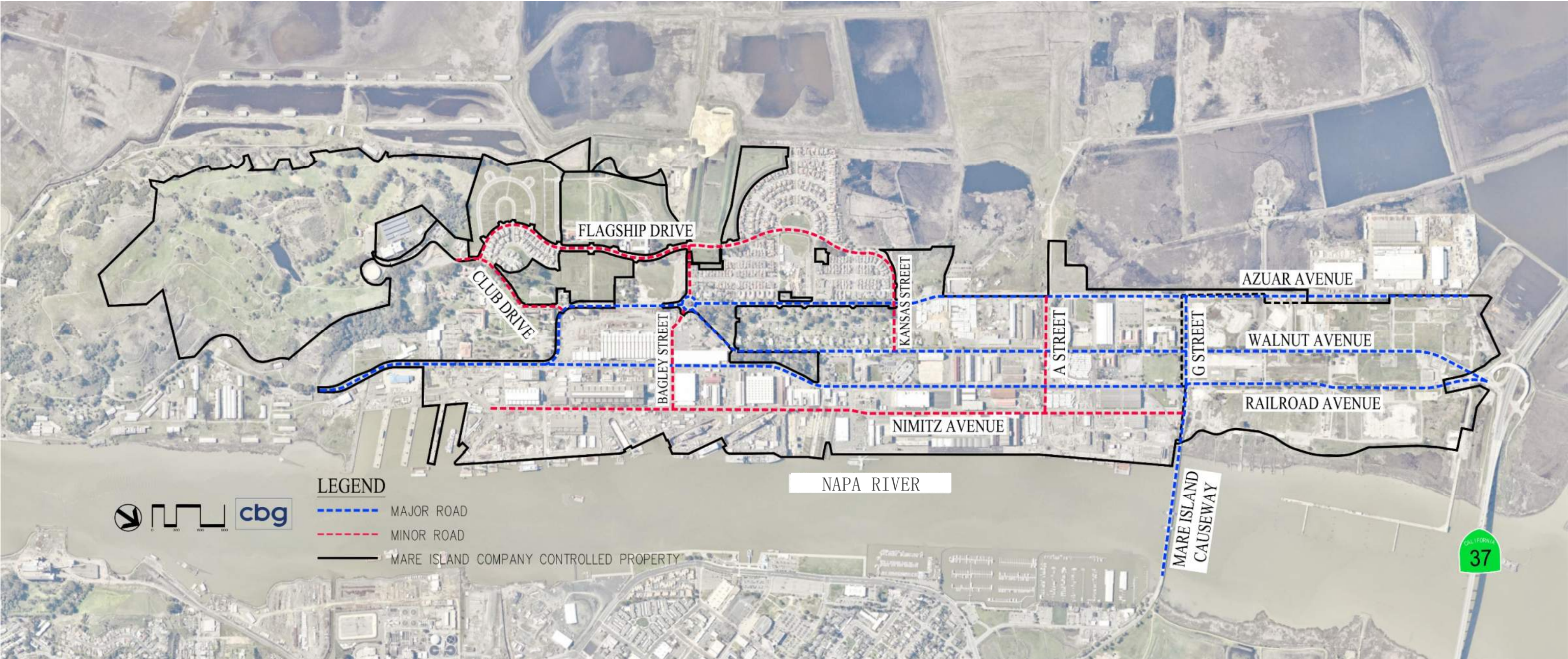


Existing DOM 4 Pump Station



Upgraded Pump Station on Mare Island

Current Infrastructure: Primary Roads



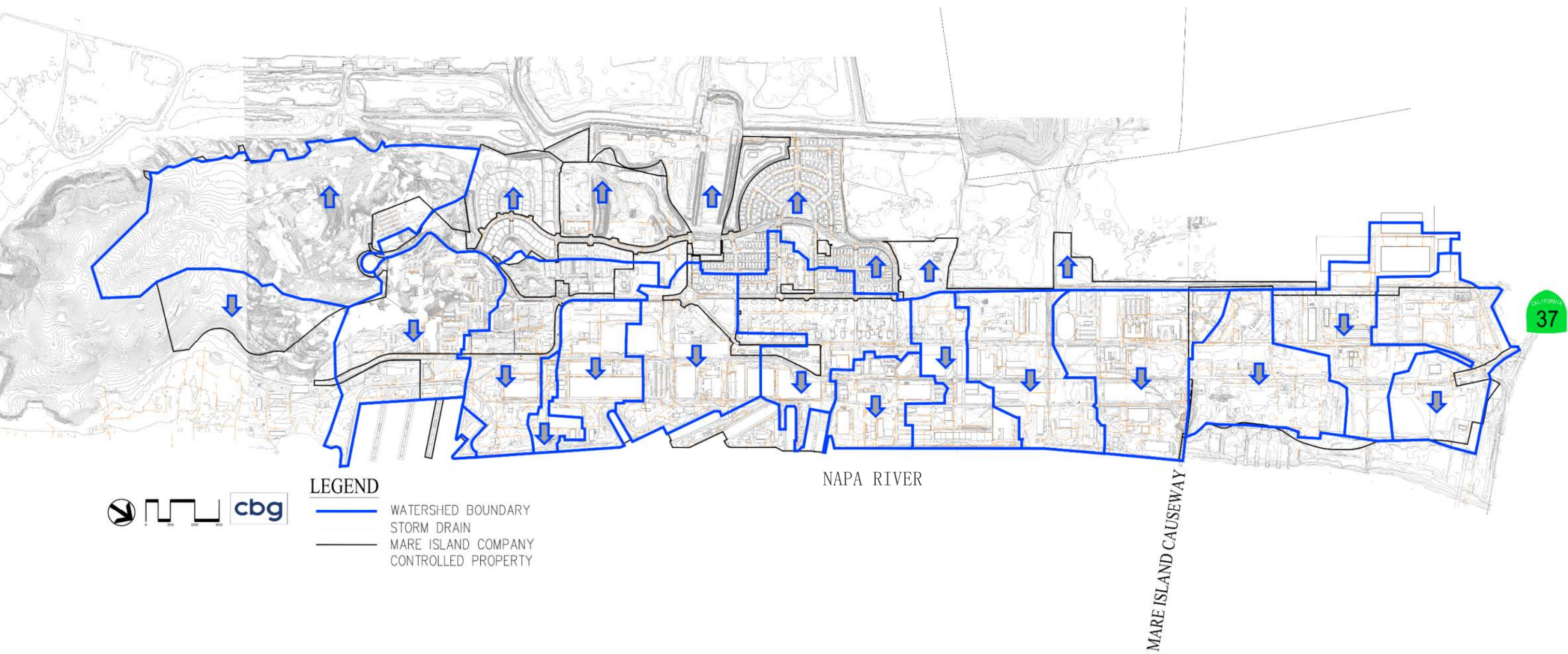
Areas Affected by: Bay Mud (ENGEO)



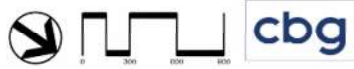
Areas Affected by: 100 Year Flood Zone



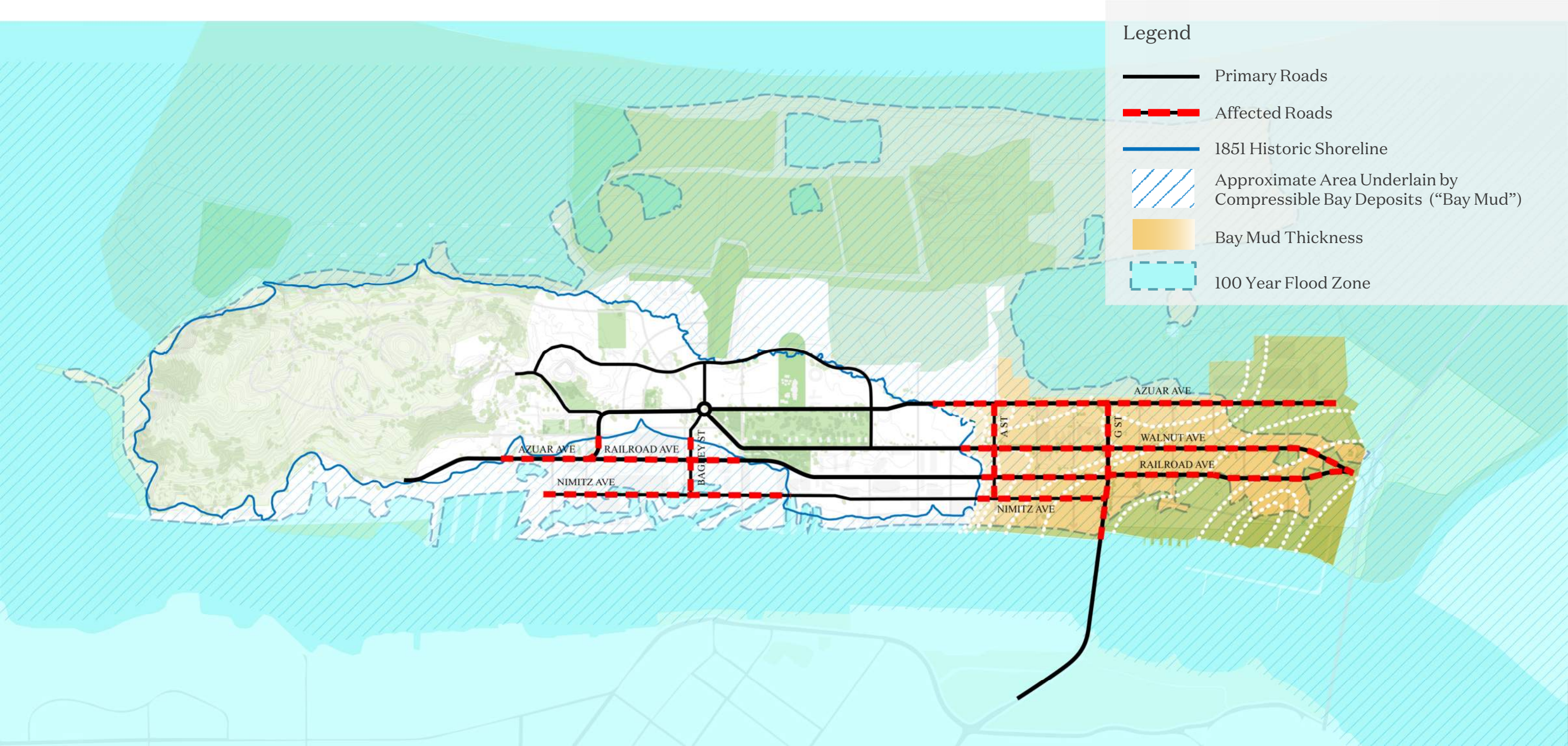
Current Infrastructure: Existing Watersheds



LEGEND
— WATERSHED BOUNDARY
— STORM DRAIN
— MARE ISLAND COMPANY CONTROLLED PROPERTY



Current Infrastructure: Streets Affected



Upgrading the Aging Infrastructure



Detached Sidewalks
Landscaping
Bike Lane

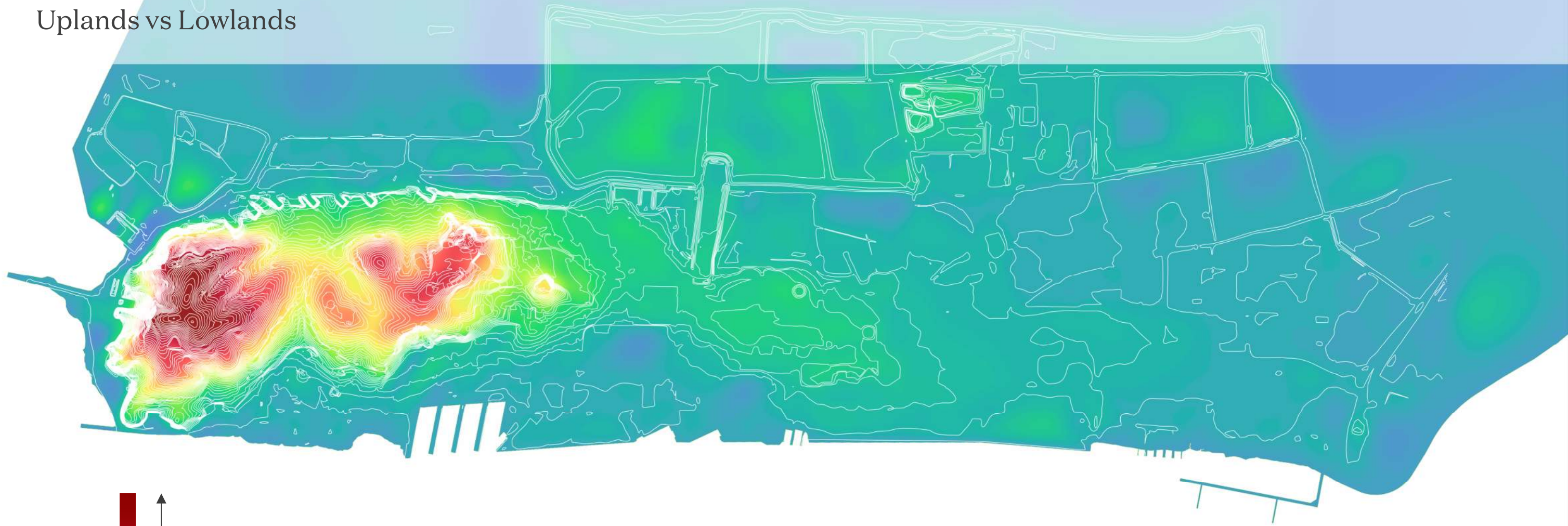


Median

Turn Pockets

Topography:

Uplands vs Lowlands



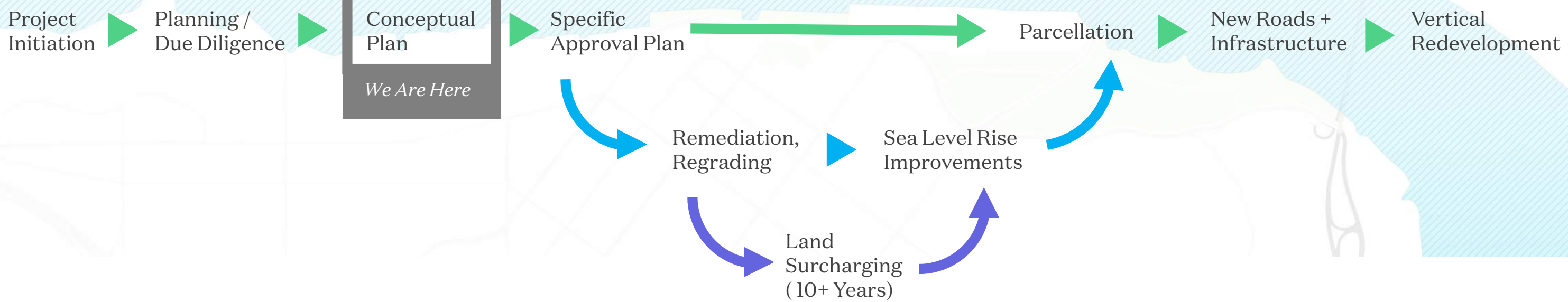
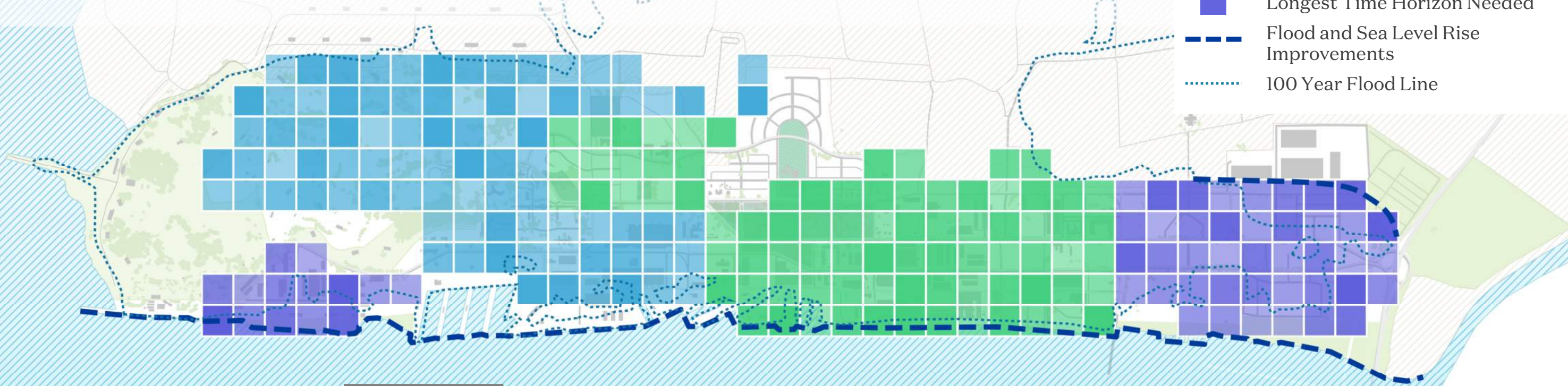
Uplands

Lowlands

Importance of Infrastructure Phasing:

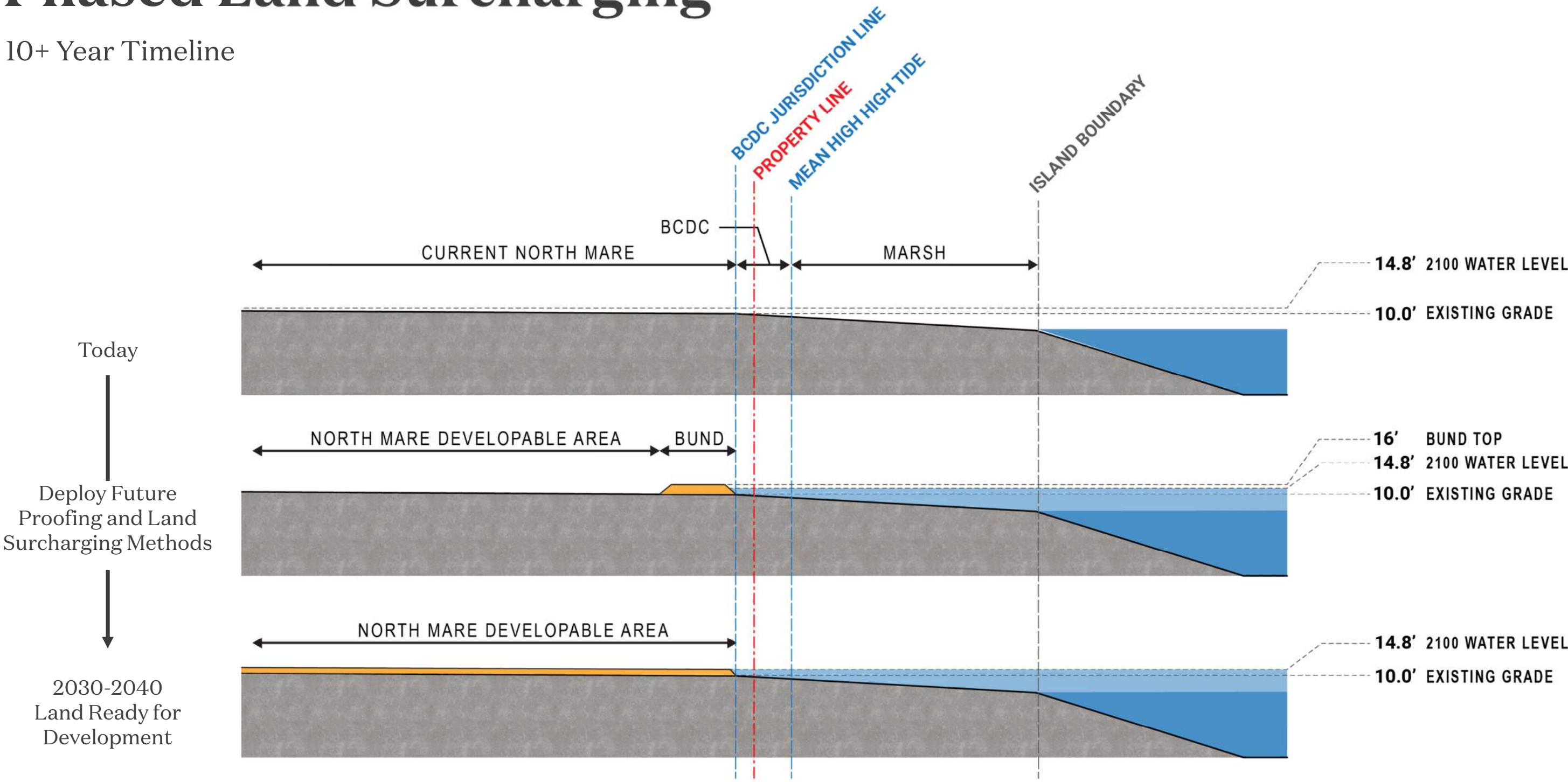
Strategic Phasing of Infrastructure and Development

- Typical Development Path
- More Difficult, Longer Time Horizon
- Longest Time Horizon Needed
- Flood and Sea Level Rise Improvements
- 100 Year Flood Line



Phased Land Surcharging

10+ Year Timeline



Green Infrastructure Strategies:

Flood Protection Measures

- Living shorelines
- Floodplains / riparian zones
- Detention basins



Stormwater Management

- Wetlands
- Bioswales
- Rain gardens
- Permeable paving
- Flow-through planters



Enhanced Streets

- Green corridors
- Tree-lined streets
- Multi-modal transit



Urban Heat Island Effect Reduction

- Green roofs
- Green walls
- Urban forestry
- Parks and open space
- Naturalized play areas



DESIGNING AN OPEN SPACE FRAMEWORK

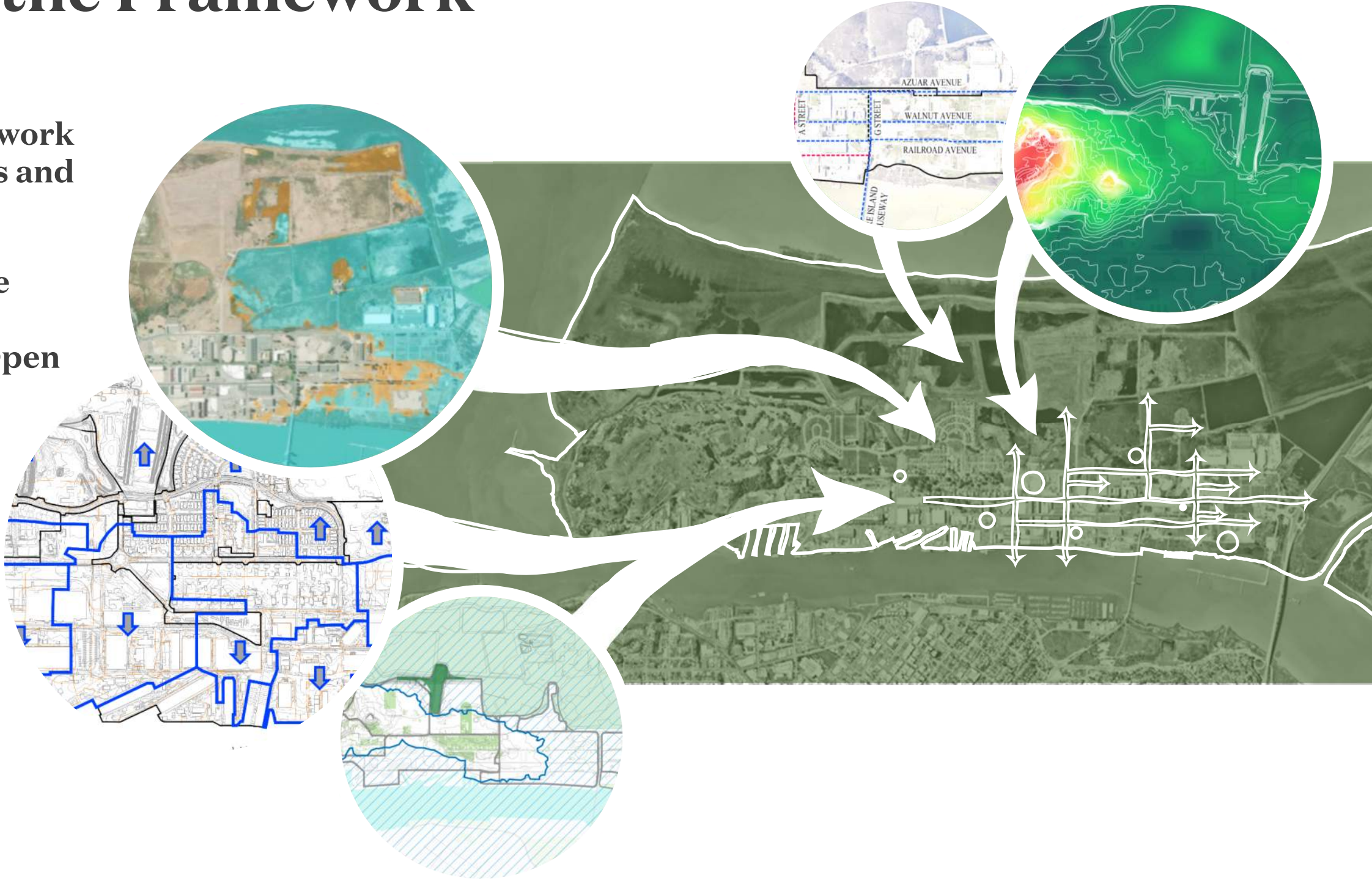
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Constructing the Framework

**Build an Open Space Framework
Based on Site Opportunities and
Vulnerabilities**

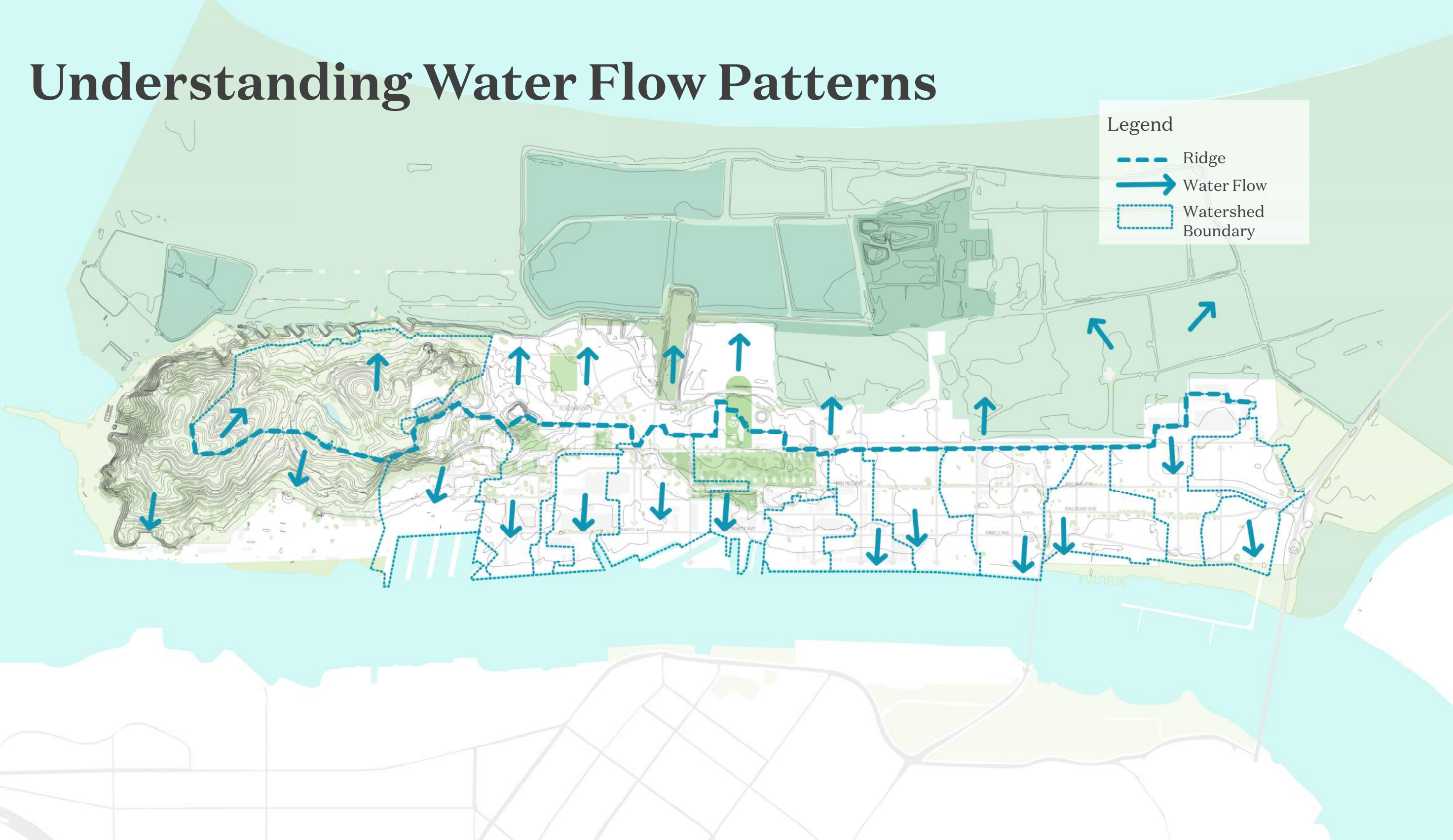
**Utilize Green Infrastructure
Strategies as Drivers of
Informing Public Realm & Open
Space Design**



Understanding Water Flow Patterns

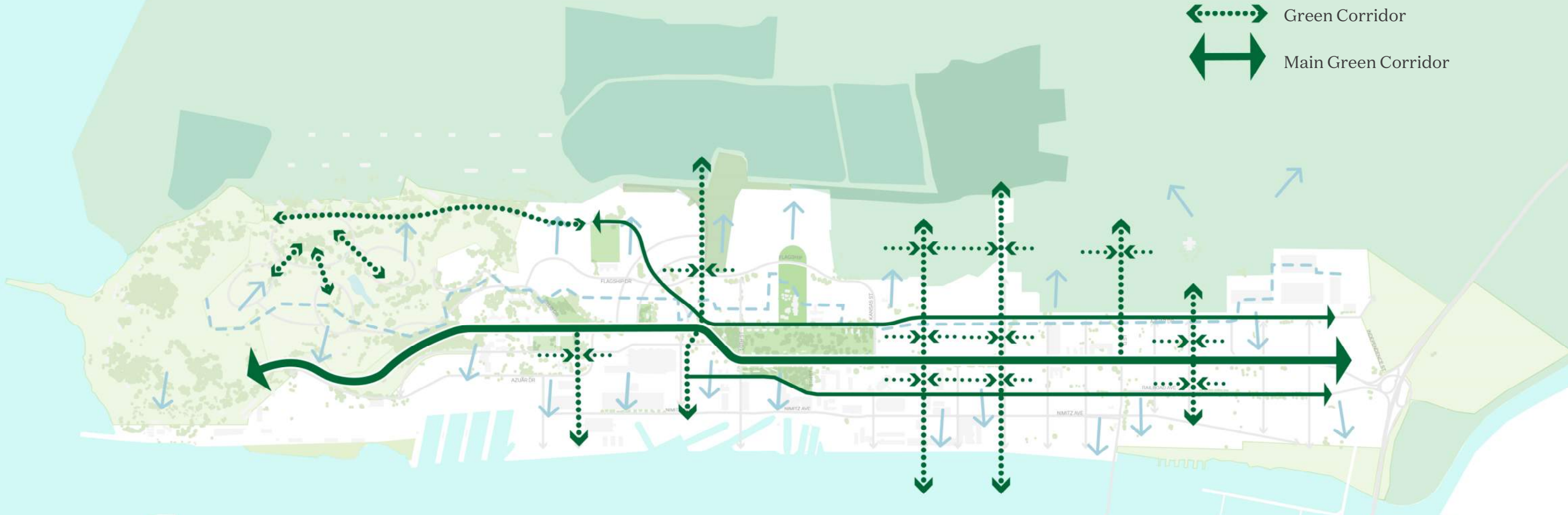
Legend

- Ridge
- Water Flow
- Watershed Boundary



Optimizing Green Infrastructure: Using Water Flow as Guide

- Legend
-  Green Corridor
 -  Main Green Corridor



Bioswale collecting stormwater runoff



Linear and continuous rain gardens



Bio-filtration of rainwater



Wildlife habitat around retention ponds



Stormwater retention using bio-retention Basins

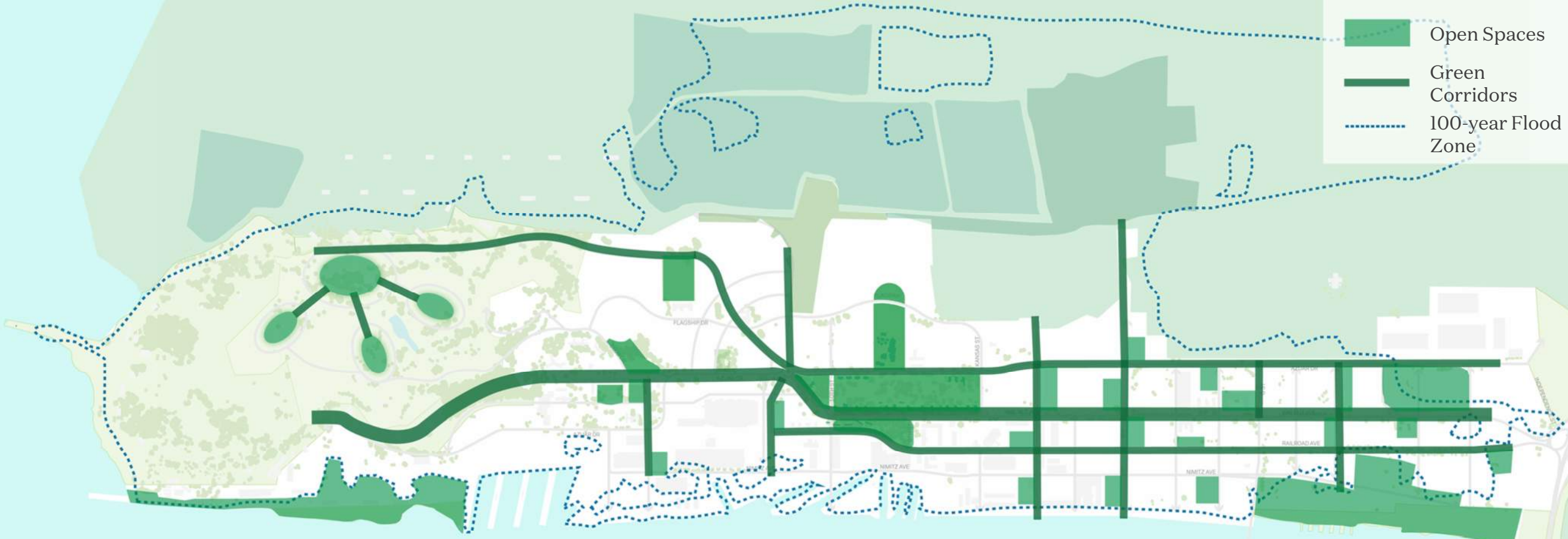


Rainwater harvesting using Cisterns

Designing an Open Space Framework

Legend

- Open Spaces
- Green Corridors
- 100-year Flood Zone



Shoreline Activation

Legend

-  Waterfront Promenade
-  Amenities/Public Realm
-  Riverfront Park
-  Industrial
-  Activity Nodes



Tech / Maker



Industrial



Cultural / Institutional



Waterfront F&B



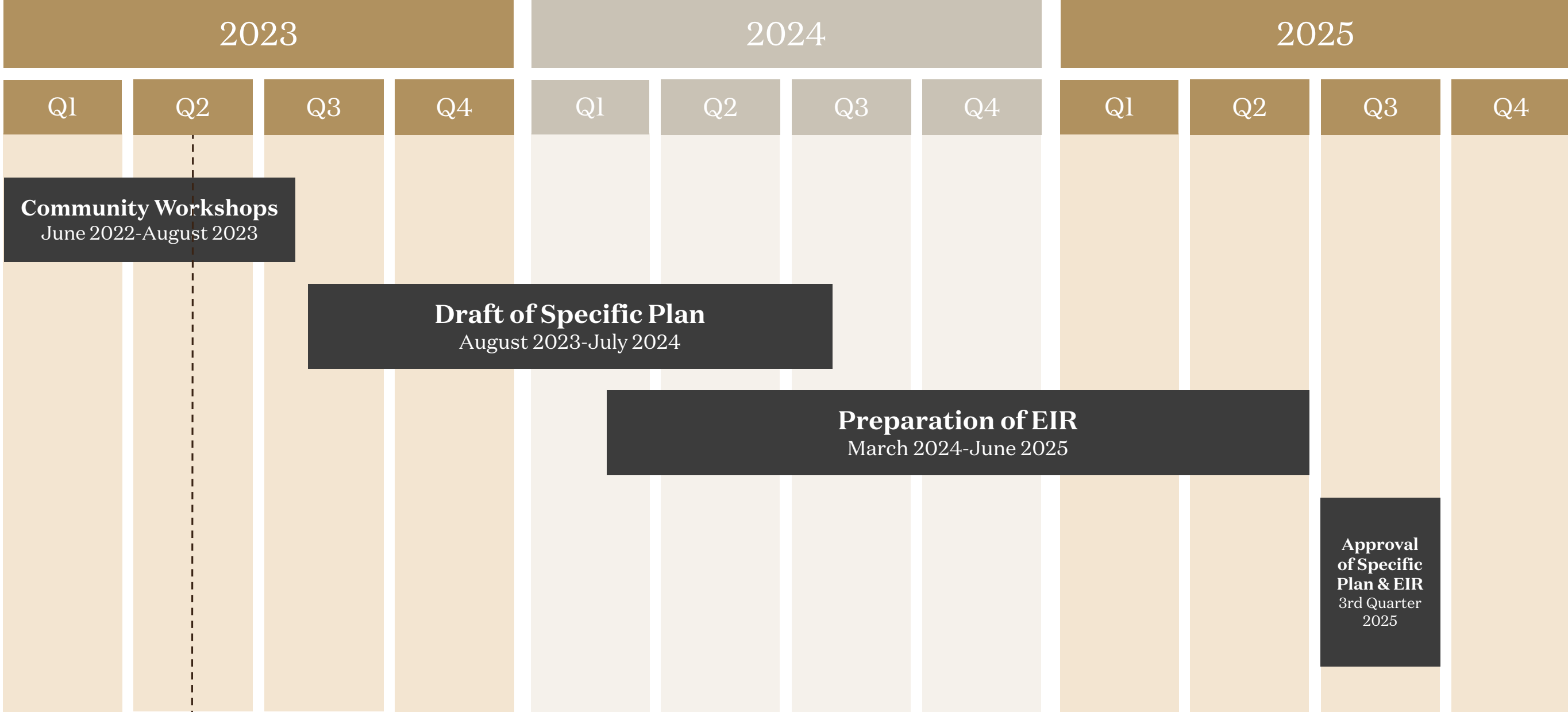
Open Space / Culture

TIMELINE

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Timeline



Today

Community Workshops Schedule

2022

2023

Jun

Jul

Aug

Sep

Oct

Nov

Dec

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

1

2

3

4

5

6

7

Re-Introduction
& Existing
Conditions
& Jobs

Market
Economics,
Housing &
Jobs

Open
Space,
Public
Realm &
Streets

Complete
Communities

Infrastructure
&
Sea Level
Rise

CEQA
& Enviro
Resources

Land Plan
Alternates

Today

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Questions



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Thank you

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