

ISLAIS CREEK BAYVIEW COMMUNITY WATERFRONT RESILIENCE

PUBLIC MEETING 1

ISLAIS CREEK ADAPTATION STRATEGY

ARMY CORPS FLOOD STUDY



San Francisco
Planning



Thursday March 14, 2019
Bayview Opera House

MEETING AGENDA

The background image is a grayscale photograph of a modern cable-stayed bridge with a large, curved, cantilevered deck. A paved walkway runs alongside the bridge, bordered by low stone walls and some vegetation. In the distance, a city skyline is visible under a clear sky.

- 1 Opening Remarks and Welcome
- 2 Climate Hazards & Citywide Resilience
- 3 Army Corps Flood Study
- 4 Islais Creek Adaptation Strategy
- 5 Workshop Exercise
- 6 Next Steps

TONIGHT'S OBJECTIVES

COMMUNITY MEETING 1



INFORMATION

Learn about the Army Corps Flood Study, Islais Creek Adaptation Strategy, and related resilience projects and efforts



PARTICIPATION

Engagement exercise to better understand what is important to Bayview community



DISCUSSION

Share outcomes of engagement exercise and what it means for equity, environment, economy, community, City and regional issues, priorities, and opportunities

FLOOD HAZARD



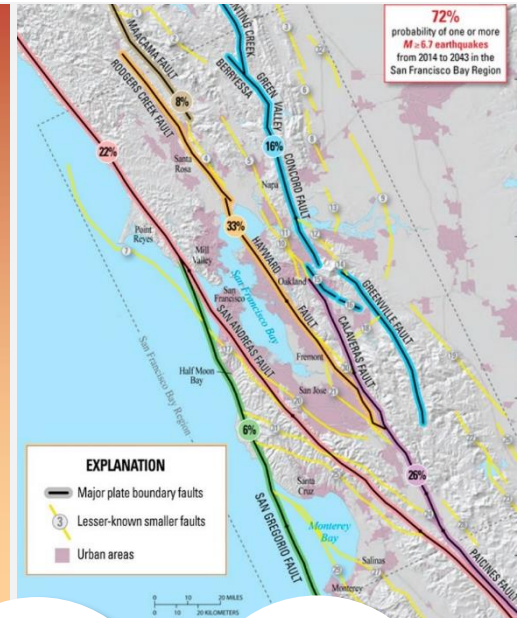
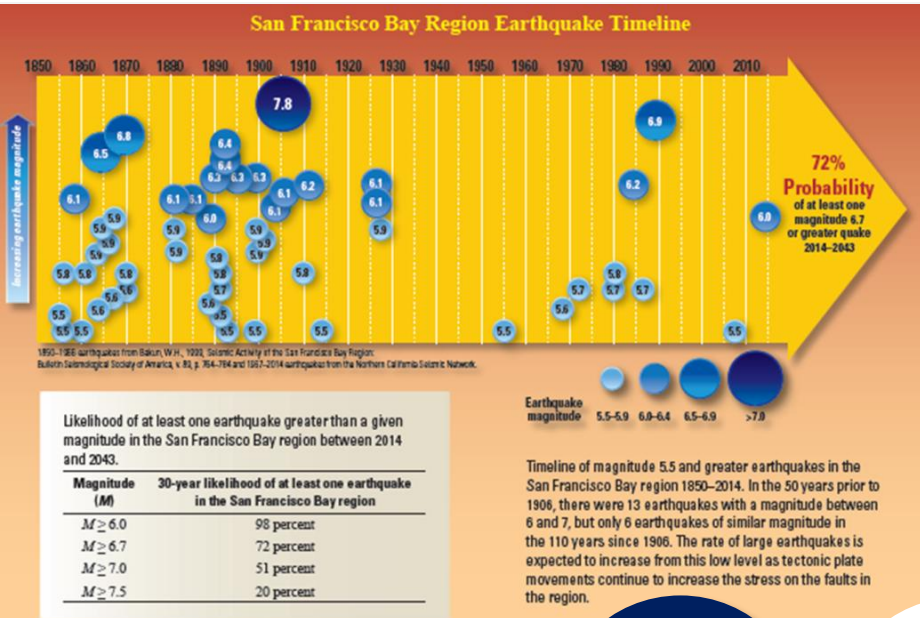
San Francisco faces increasing flood risk. Parts of the shoreline currently flood.

Increasing flood risks from sea level rise (SLR)

Up to 3 feet by 2050

Up to 6-10 feet by 2100

EARTHQUAKE HAZARD



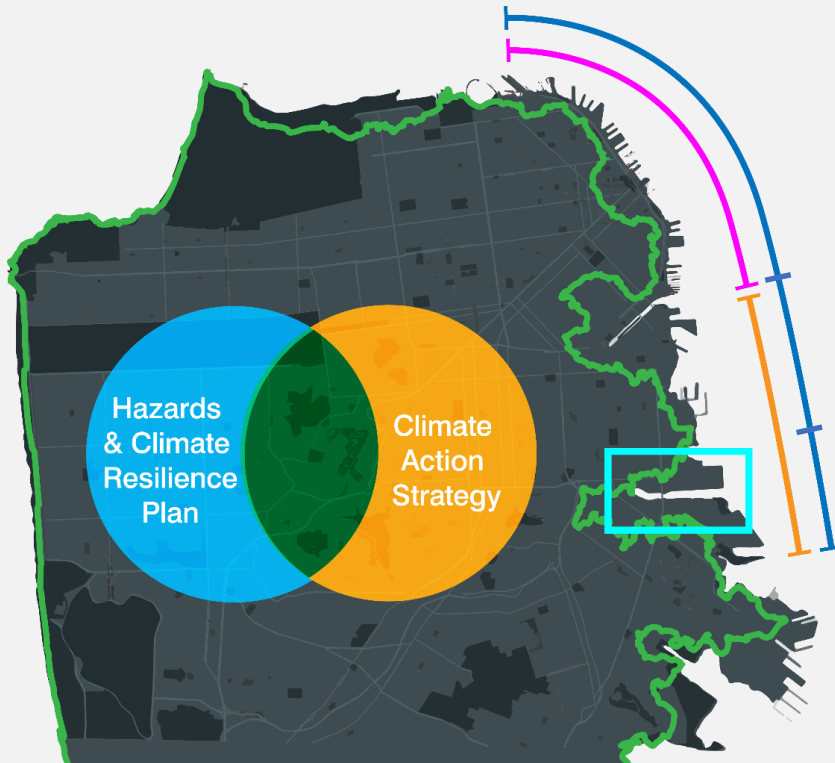
The likelihood of a major earthquake is high and the consequences are significant

72% likelihood of a major earthquake by 2043

Historically quiet period since 1906

San Andreas & Hayward Faults are highest risk

CITYWIDE RESILIENCE EFFORTS



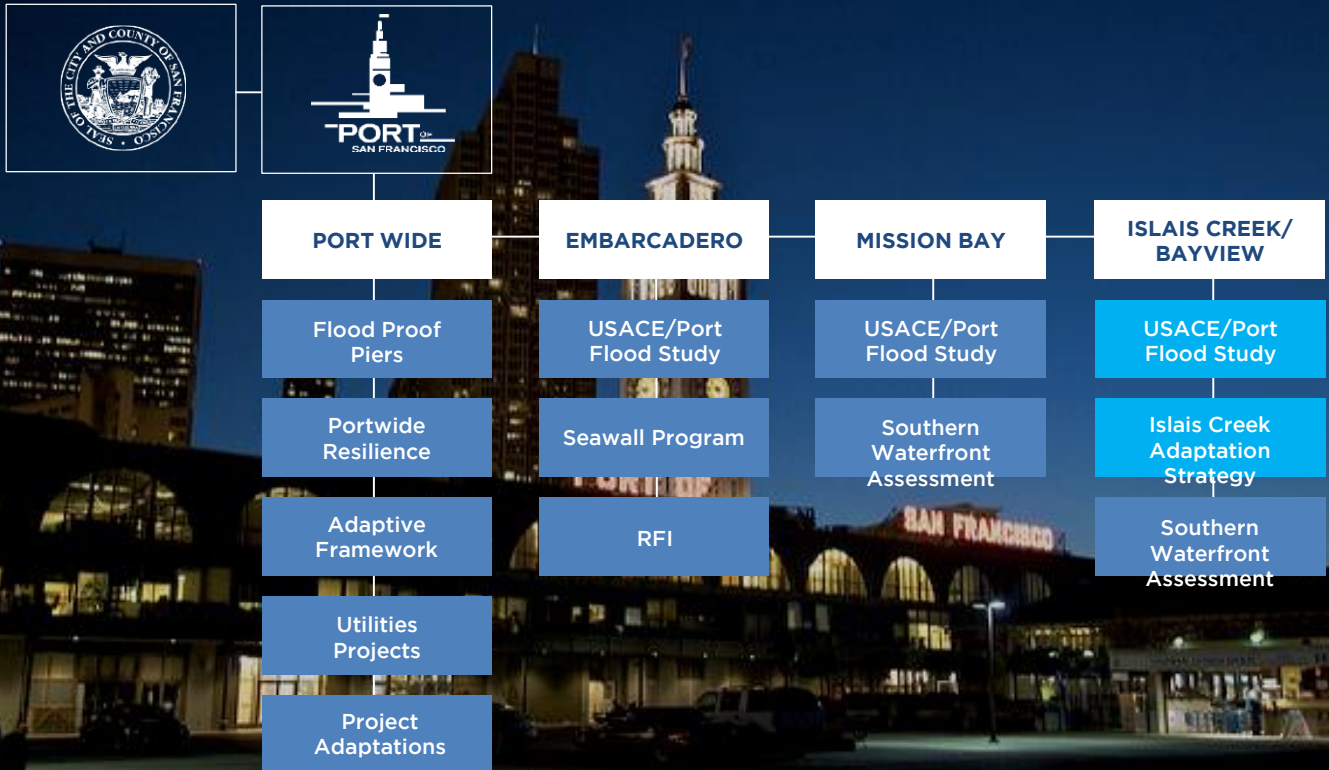
SHORELINE

- Sea Level Rise Action Plan
- Southern Waterfront Assessment
- Seawall Safety Program
- Army Corp of Engineers Flood Study
- Islais/Southeast Mobility Adaptation Strategy

CITYWIDE

- Climate Action Strategy
- Hazards and Climate Resilience Plan

PORT RESILIENCE EFFORTS



PORT RESILIENCE FRAMEWORK

STRENGTHEN ELEMENT

Objective:
Immediately implement highest priority disaster response and life safety projects along the Embarcadero Seawall

Planning and Implementation Horizon:
2018 – 2026

Priorities:
Current Seismic & Flood Risk

Geographic Focus:
Embarcadero Seawall

STRENGTHEN THE SEAWALL FOR PUBLIC SAFETY

ADAPT ELEMENT

ADAPT TO MID- CENTURY RISKS

Objective:
Identify policies and projects that will result in a Port that is resilient to seismic and increasing flood risks and that can respond to changing priorities. Projects will be integrated into city, regional, and private actions, resulting in coordinated actions to increase waterfront resilience.

Planning and Implementation Horizon:
2018 – 2050, Plan updated every five years

Priorities:
Seismic Risk and Future Flood Risk

Geographic Focus:
Entire Port Jurisdiction

ENVISION ELEMENT

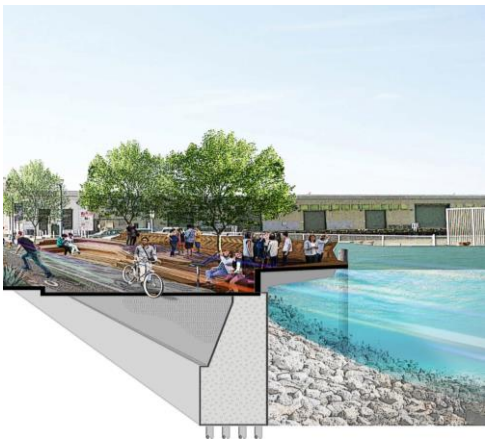
ENVISION THE WATERFRONT IN 2100

Objective:
Develop visions that can respond to remaining seismic risk and increasing flood risks and have an ongoing public conversation about the trade-offs of different options.

Planning and Implementation Horizon:
2018 – 2100, Vision Element updated every 10 years

Priorities:
Seismic Risk and Future Flood Risk

Geographic Focus:
Entire Port Jurisdiction



RESILIENCE PROJECTS SCOPE AND SCALE EXAMPLE

Asset: 3rd Street Bridge
System: Muni Metro
Hazard Reach: U.S. Army Corps Flood Study
Citywide: SLR and HCR



Efforts Underway Across Scales, Hazards & Assets



CITYWIDE PLANS & STRATEGIES

- Sea Level Rise Action Plan (Vulnerability & Consequence Analysis)
- Hazards & Climate Resilience Plan
- Climate Action Strategy

SHORELINE ASSESSMENTS & PROJECTS

- Southern Waterfront Assessment
- Embarcadero Seawall Program
- USACE/Port Flood Study
- Islais/Southeast Mobility Adaptation Strategy
- Ocean Beach Implementation

PROJECT RESILIENCE

PIER 70

- Mixed use development with 3000 homes, nine acres of parks
- Accommodates up to six feet of sea level rise
- Generates an estimated \$88 million to be used for adaptation

Projects are not able to address access, utilities and surrounding assets and services



PROJECT RESILIENCE

HERON'S HEAD LIVING SHORELINE

- Stabilize the southern shoreline of the park against ongoing erosion and subsidence
- Enhance biodiversity and ecological function of the site
- Enable the wetlands and park to adapt to a moderate amount of sea level rise through approximately 2050

RESILIENCE EFFORTS AT ISLAIS CREEK



Army Corps Flood Study

Focus: Flood Risk, Protecting assets in the Federal Interest and Identifying local priorities, Potential to qualify for Federal Construction \$

Implementation: Short, Medium and Long-Term



Southern Waterfront Assessment

Focus: All hazards, broad resilience (Equity, Environment, Economy)

Implementation: Short, Medium and Long-Term



Isla Vista Creek Adaptation Strategy

Focus: Reliable Transportation Systems, Social Equity

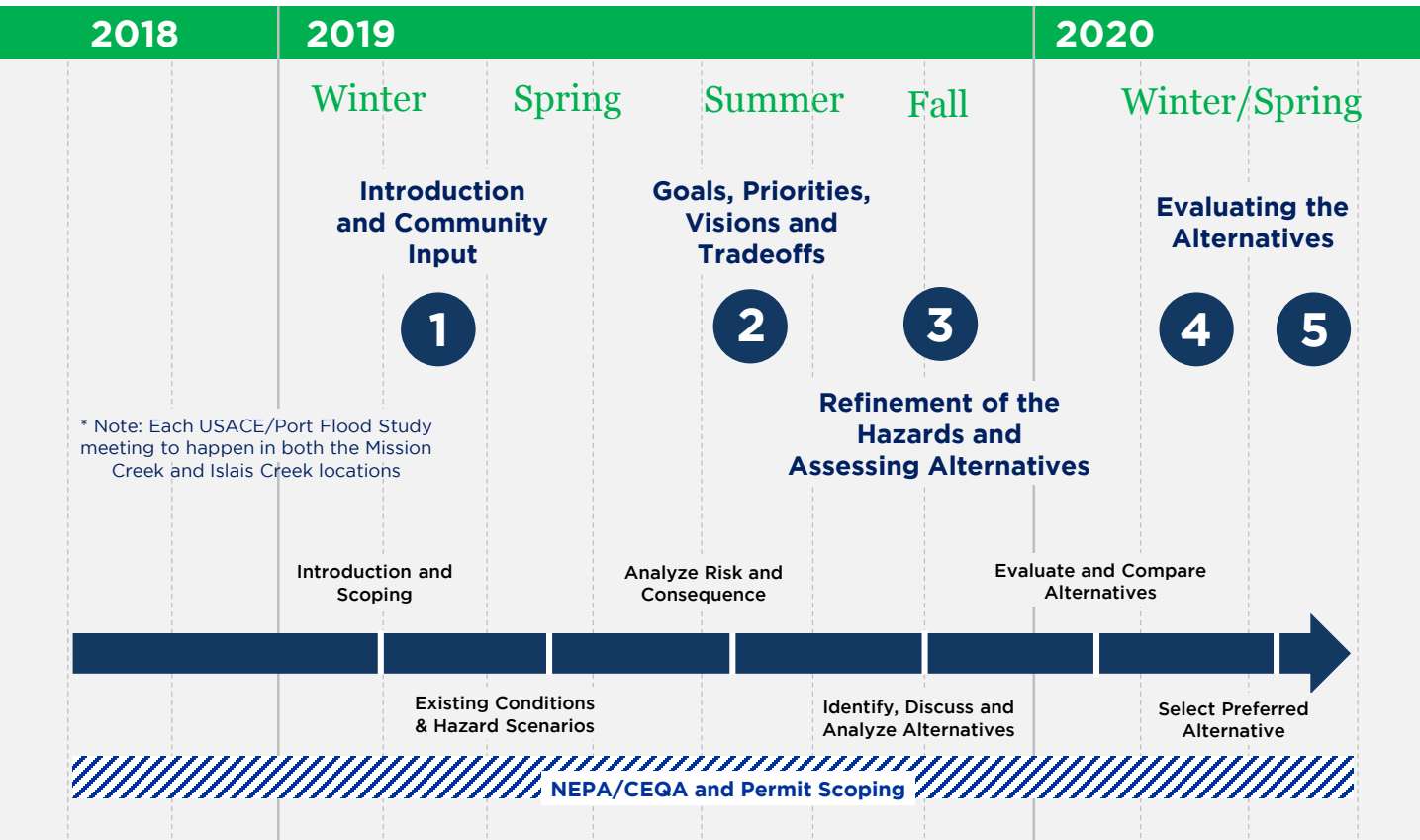
Implementation: Short, Medium and Long-Term



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ARMY CORPS FLOOD STUDY PLANNING & ENGAGEMENT



FLOOD STUDY PUBLIC ENGAGEMENT

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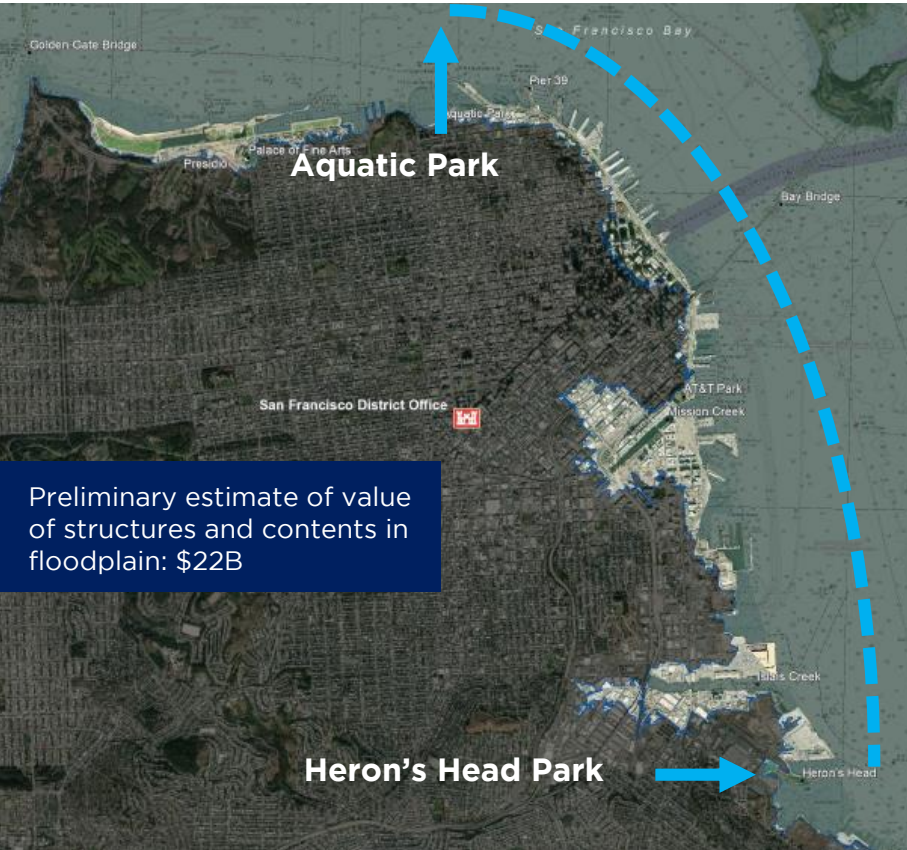
Public engagement and participation is how we get to a plan and a project.

Opportunities for participation will include community meetings held in adjacent neighborhoods, online engagement, and other activities throughout the study period.

Communities, businesses, and interested parties will be asked to help identify top priorities for:

- **FLOOD RISK REDUCTION** for community assets, resources, and critical infrastructure.
- **INVESTMENT** in flood risk management and approaches that also achieve benefits for community, environment, and economy.

FLOOD STUDY AREA



Approximately 7½ miles of waterfront between Aquatic Park (to the North) and Heron's Head Park (to the South)*

- Area based on preliminary assessment of coastal flood risk
- Significant cultural, historic and maritime assets
- Critical public infrastructure, including local and regional transit (above ground, below ground, and ferries) and wastewater treatment
- Dense residential, commercial, and industrial land use

Other areas outside of study area should be a focus of future studies

FLOOD STUDY OVERVIEW

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Approximately three to five year study (2018-2022) of flood risk along the San Francisco Bay shoreline which includes

- Army Corps experience and expertise
- Funding for the assessment of flood risk and the identification of a preferred alternative that becomes eligible for Federal funding
- A requirement to identify risks to Federal interest, which drives the project that can be funded

FLOOD STUDY GOALS

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Understand and develop solutions to lower flood risk

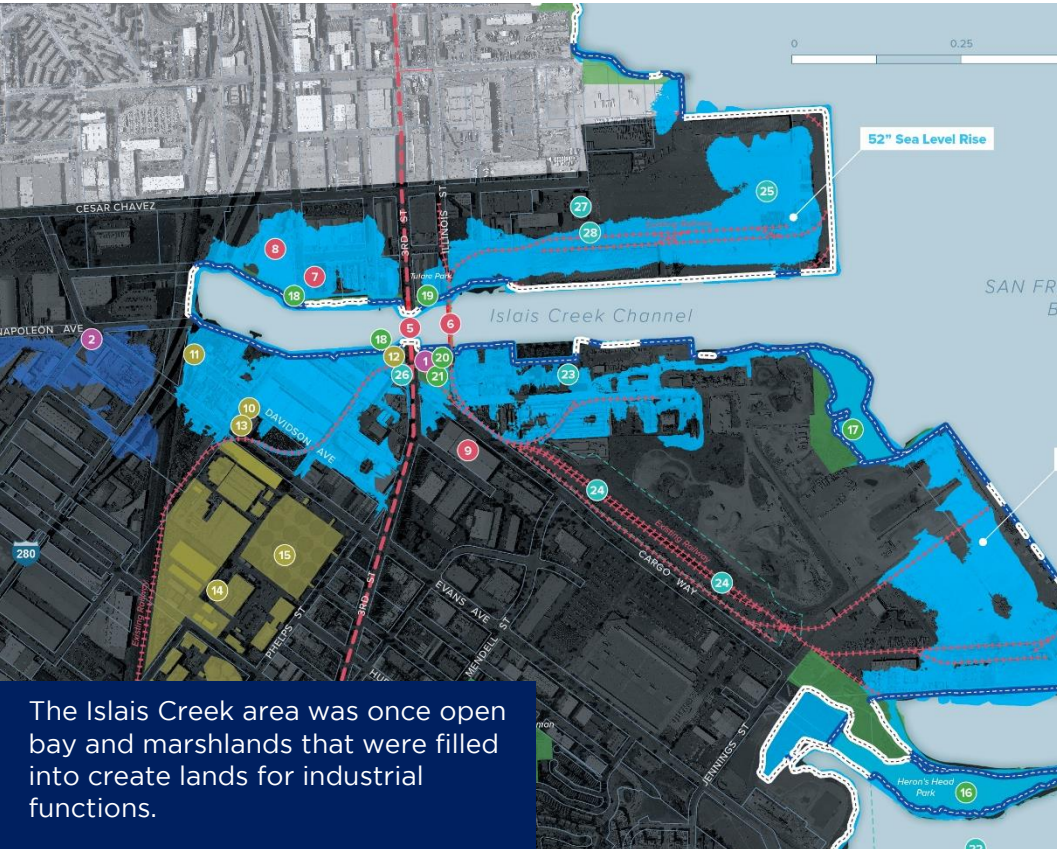
Identify community, stakeholder and resource agency priorities/issues

Flood management alternatives designed to:

- Meaningfully reduce current and future flood risks to 2080
- Consider future conditions to 2130
- Identify critical assets and services in the Federal interest
- Identify local priorities

UNDERSTANDING THE HAZARDS AT ISLAIS

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The Islais Creek area was once open bay and marshlands that were filled into create lands for industrial functions.

EARTHQUAKE RISK

Evaluate existing information to develop an understanding of the seismic risk, including ground shaking and liquefaction in the project area.

FLOOD RISK

Evaluate extent of coastal flood hazard to estimate damage to exposed assets.

UNDERSTANDING ASSETS & SERVICES AT ISLAIS

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US Army Corps
of Engineers



ISLAIS CREEK BAYVIEW COMMUNITY WATERFRONT RESILIENCE

The Port and the Army Corps are collecting information on existing assets with City agencies, partners and community stakeholders.

INFRASTRUCTURE



URBAN AND CULTURAL



PARKS AND ECOSYSTEMS



MARITIME



DISASTER RESPONSE



THURSDAY MARCH 14 2019

FLOOD STUDY FUNDING

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COST OF STUDY



DESIGN/CONSTRUCTION OF FEDERAL PLAN



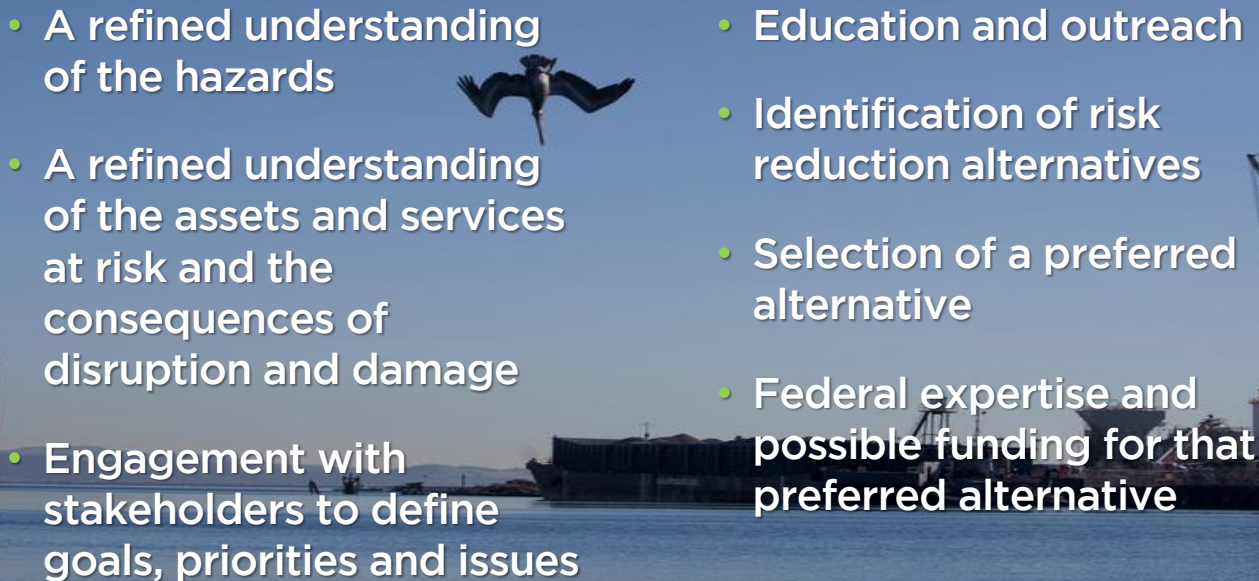
**Locally preferred plan
can be selected,
City/Port pays extra cost**



**Recommendations for
funding the selected
alternative** will be made
in the final Army Corps
recommendation to
Congress in 2022 or later.



FLOOD STUDY OUTCOMES

- 
- A refined understanding of the hazards
 - A refined understanding of the assets and services at risk and the consequences of disruption and damage
 - Engagement with stakeholders to define goals, priorities and issues
 - Education and outreach
 - Identification of risk reduction alternatives
 - Selection of a preferred alternative
 - Federal expertise and possible funding for that preferred alternative

FLOOD STUDY PUBLIC ENGAGEMENT

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MEETING 1

Let's build this together!

Learn about the project and provide input on study priorities. Share how you want to stay engaged.

MEETING 2

Shape study goals!

Review draft goals based on participation from Meeting 1 and a discuss how goals could guide near, mid and long term alternatives.

MEETING 3

Envision alternatives!

Begin to envision alternatives for addressing the flood risk and prioritize action based on risk and the priorities identified in the first two meetings.

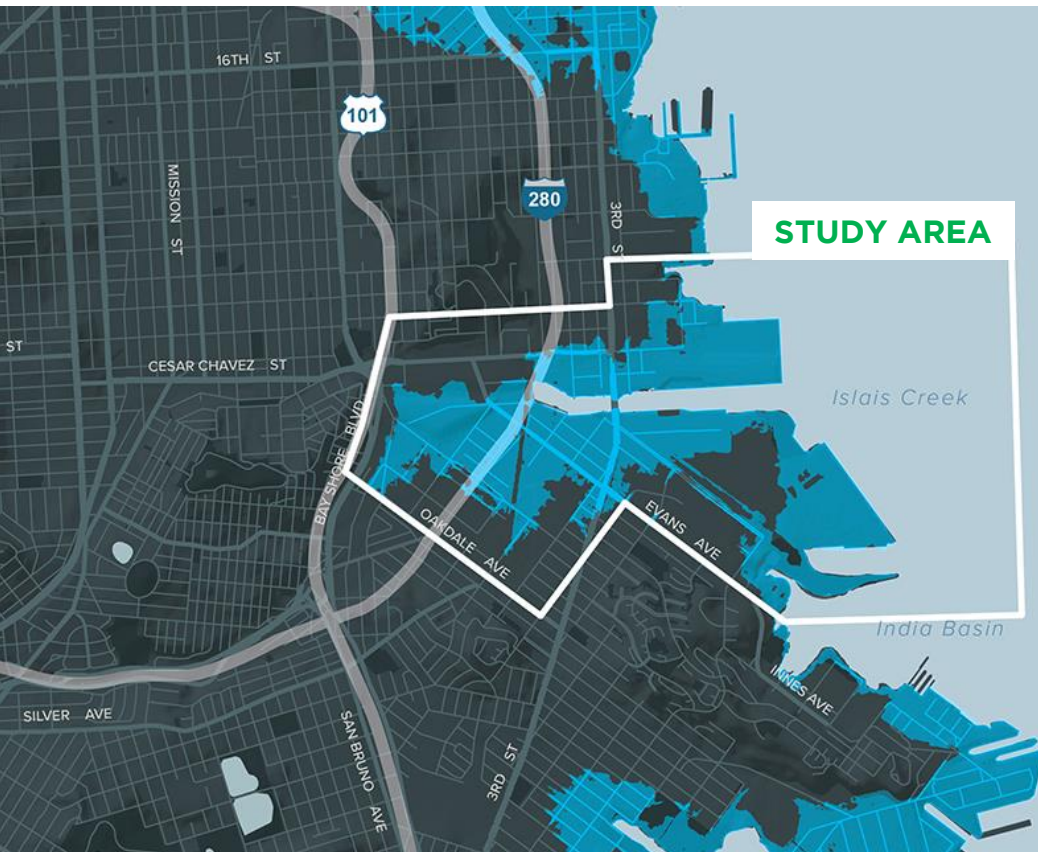
There will be other opportunities for engagement, including meetings in the field, tours and charrettes. Your suggestions are welcome!



OPPORTUNITIES TO ENGAGE IN RESILIENCE EFFORTS

- **MAP THE WATERFRONT ASSETS!** sfseawall.com
- **OUTREACH**
 - Waterfront Resilience Webinar
Wednesday March 27
1 - 1:30 PM
 - Let us know where we should go- community events, meetings, organizations
 - Let us know how you want to engage-field visits, smaller technical or policy briefings, hosting or participating in community led events

RESILIENCE EFFORTS AT ISLAIS CREEK



RESILIENCE EFFORTS AT ISLAIS CREEK



Army Corps Flood Study

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Planning



ISLAIS CREEK ADAPTATION STRATEGY

GOALS

- 1 Develop strategies for a resilient, safe, and reliable multimodal transportation system that accommodates projected population and job growth
- 2 Engage community members, especially those who are vulnerable and disadvantaged, in all phases of the project to ensure that local expertise is included
- 3 Produce both site-specific and district-wide strategies
- 4 Prioritize Actions for near, mid, and long-term implementation
- 5 Identify other co-benefits such as increased wildlife habitat, ecosystem functions, and expanded open space
- 6 Identify other co-benefits such as more jobs, and of greater diversity, in the project area

ISLAIS CREEK ADAPTATION STRATEGY

PLANNING & ENAGEMENT

Workshop #1: Mapping Assets: March 2019

Workshop #2: Establish Adaptation Goals, Priorities, and Tradeoffs: Summer 2019

Refinement of the Hazards and Assessing Alternatives: Fall 2019

Workshop #3: Develop District-Scale Design Alternatives: Winter 2020

Workshop #4: Adaptation Designs for Specific Sites: Winter 2021

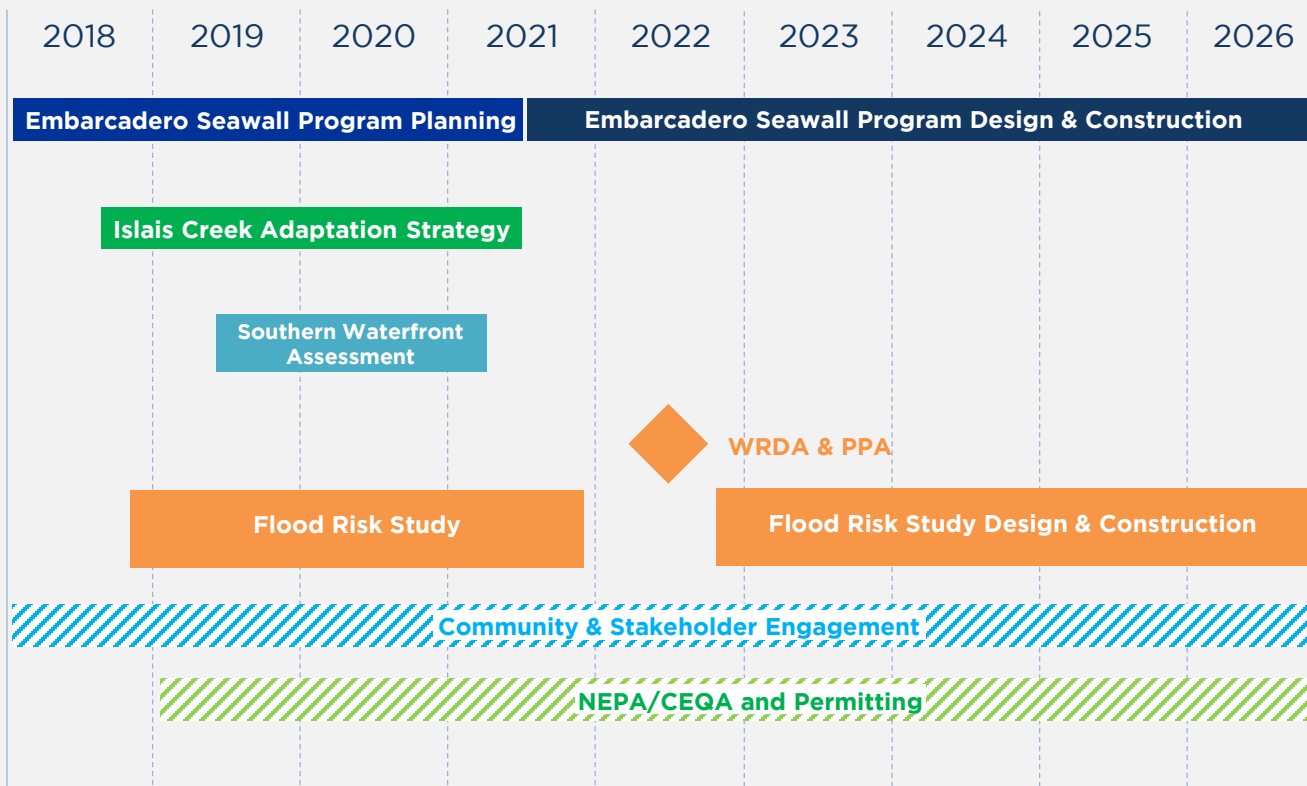
Youth Engagement: Spring 2019, Fall 2019, Spring 2020

Community Ambassador Working Groups: Summer 2019 – Fall 2020

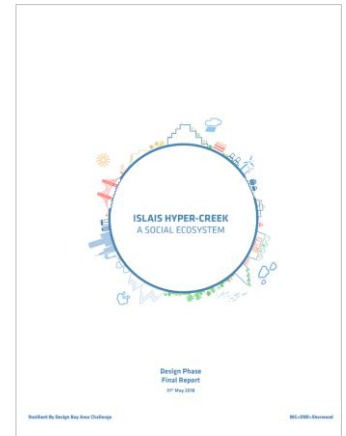
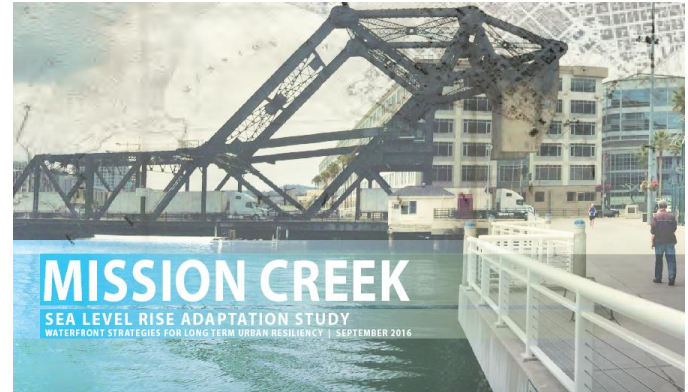
Other engagement opportunities TBD



RESILIENCE EFFORTS AT ISLAIS CREEK: **TIMELINE**



RELEVANT STUDIES AND PROJECTS



THANK YOU



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Port of San Francisco

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sfport.com



**US Army Corps
of Engineers**

Flood Study Assets & Community Engagement Exercise

Islais Creek Community Meeting

March 13th, 2019



FLOOD HAZARD: *SEA LEVEL RISE*

**Sea Level is on the rise &
we're running out of time!**

History:

- 8 inches from 1900 to 2000

Future:

- 1 to 2 feet by 2050
(CCSF 2016)
- 3 to 5.5 feet by 2100
(CCSF 2016)
- New CA guidance up to 10 ft
by 2100 (H++)

FLOOD HAZARD ZONES: *Current (6 inches of SLR)*



CURRENT (2019 - 2030)

Immediate Flood Hazards:

- Parts of Mission Bay
- Pier 96
- Heron's Head Park

FLOOD HAZARD ZONES: *Near Term* (Up to 1 foot of SLR)



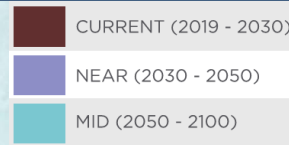
CURRENT (2019 - 2030)

NEAR (2030 - 2050)

Near Term Flood Hazards:

- CalTrain King Street Station Yard
- Pier 80
- Islais Creek Industries

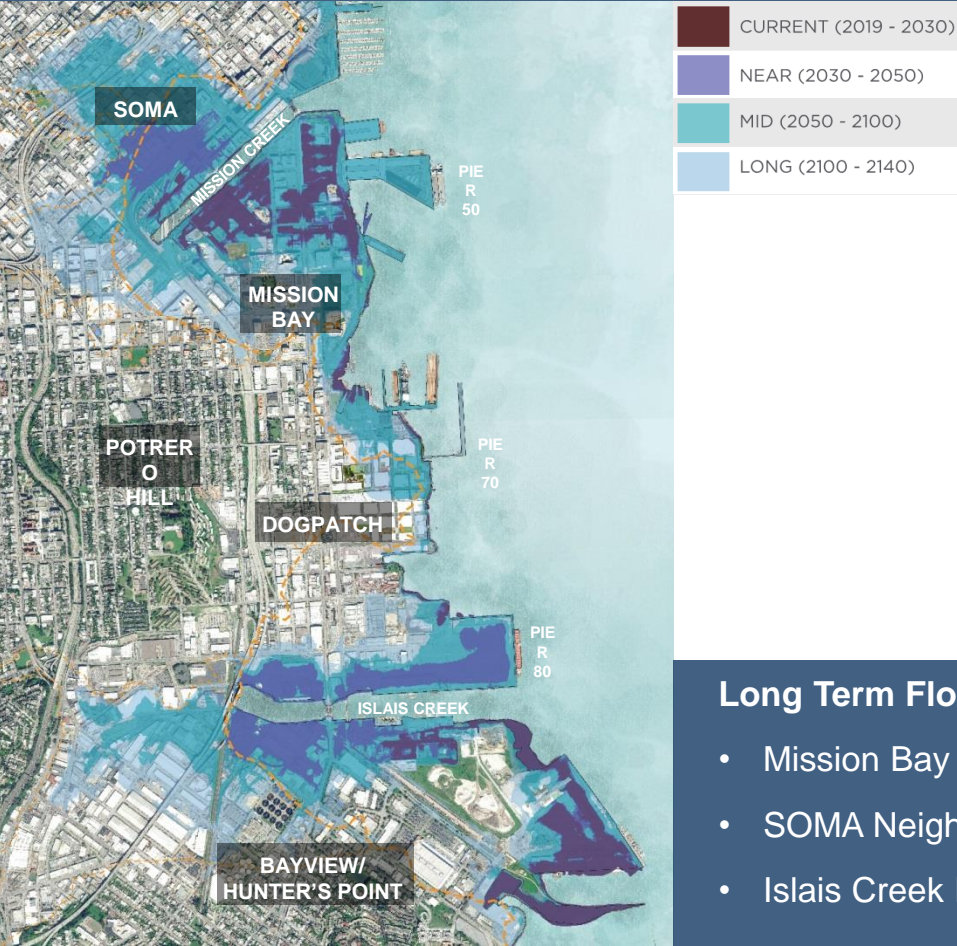
FLOOD HAZARD ZONES: *Mid-Term* (Up to 3 feet of SLR)



Mid Term Flood Hazards:

- Mission Bay
- SOMA Neighborhood
- Islais Creek Industrial Area

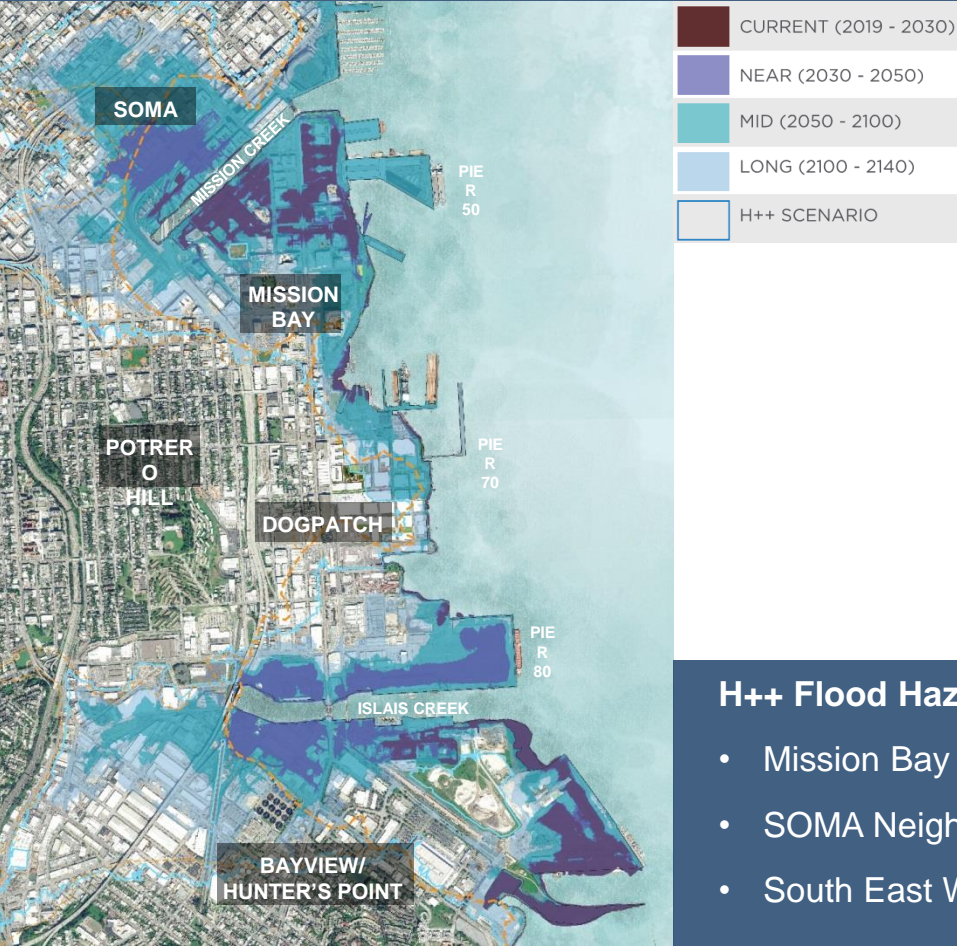
FLOOD HAZARD ZONES: *Long-Term* (Up to 5.5 feet of SLR)



Long Term Flood Hazards:

- Mission Bay
- SOMA Neighborhood
- Islais Creek Industrial Area

FLOOD HAZARD ZONES: *H++ Scenario* (Up to 10 feet of SLR)



H++ Flood Hazards:

- Mission Bay
- SOMA Neighborhood
- South East Wastewater Treatment Plant

WHAT'S OUT THERE
AND WHAT'S AT STAKE?

SAN FRANCISCO'S SOUTHERN WATERFRONT: ISLAIS CREEK



SAN FRANCISCO'S SOUTHERN WATERFRONT: ISLAIS CREEK



*GAME OF
HAZARDS!*

INFRASTRUCTURE



UTILITIES



STREETS



TRANSIT



SHORELINE
PROTECTION

INFRASTRUCTURE



UTILITIES



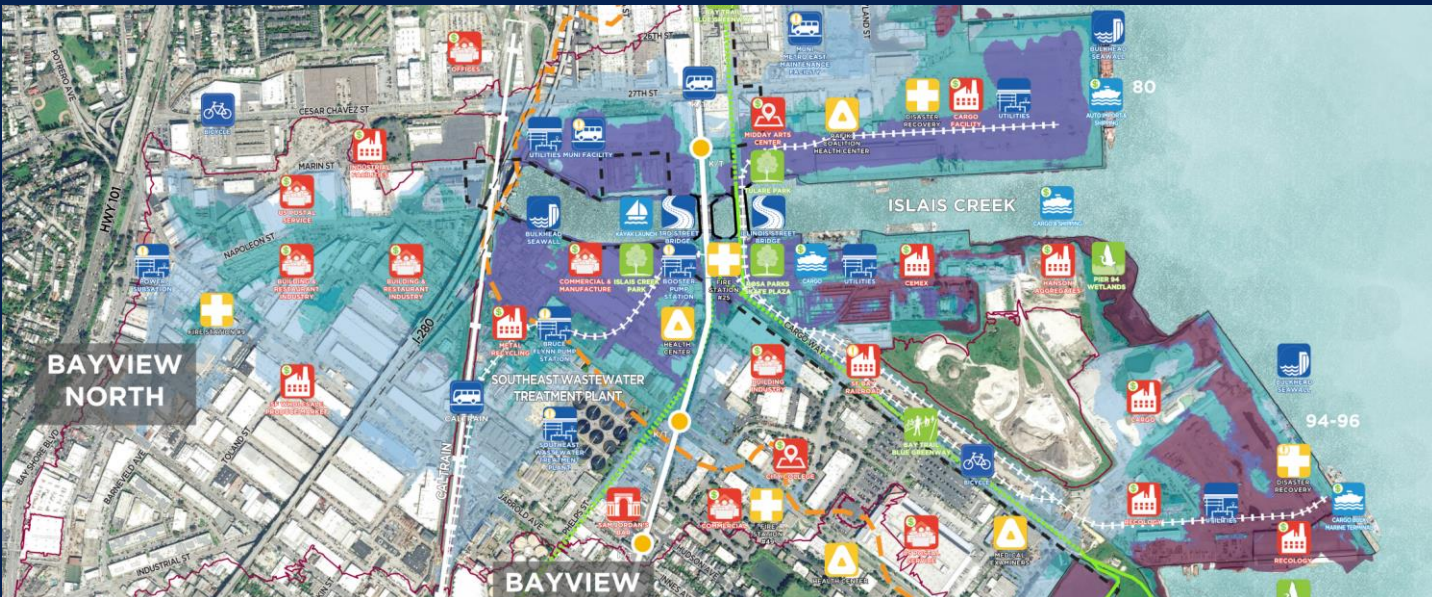
STREETS



TRANSIT



SEAWALL



INFRASTRUCTURE



UTILITIES



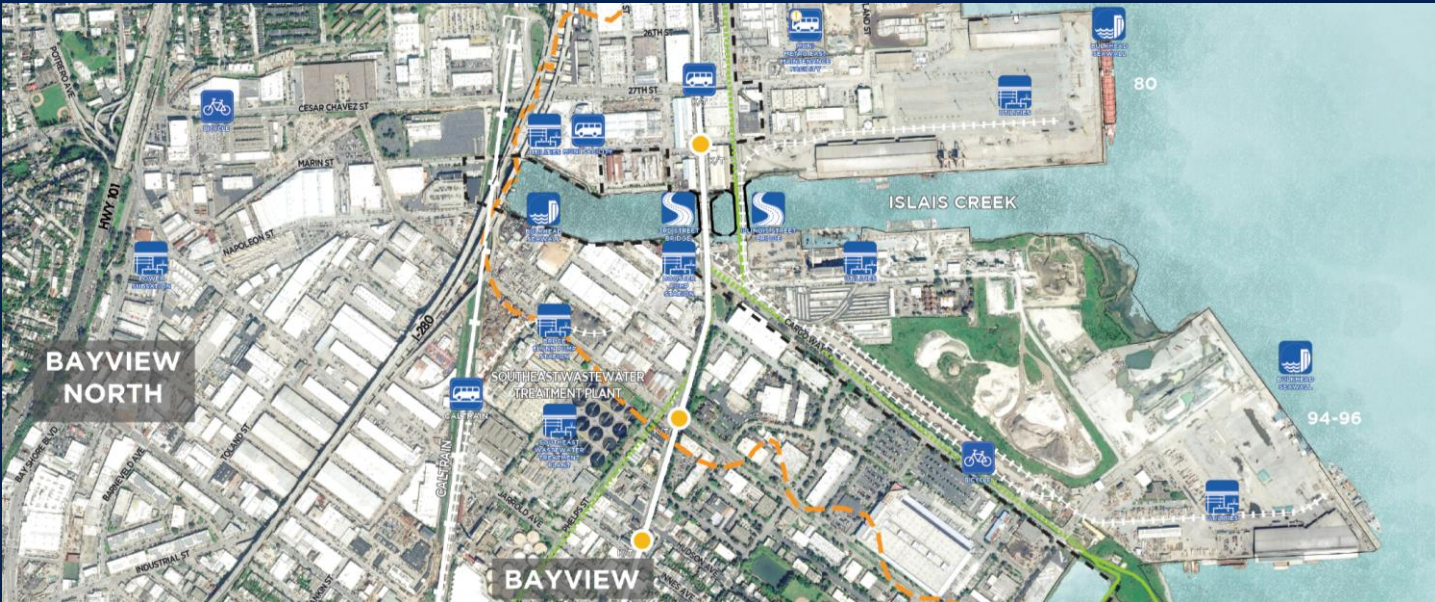
STREETS



TRANSIT



SEAWALL



URBAN AND CULTURAL



HISTORIC



LIVE



WORK



VISIT



INDUSTRIAL
FACILITIES

URBAN AND CULTURAL



HISTORIC



LIVE



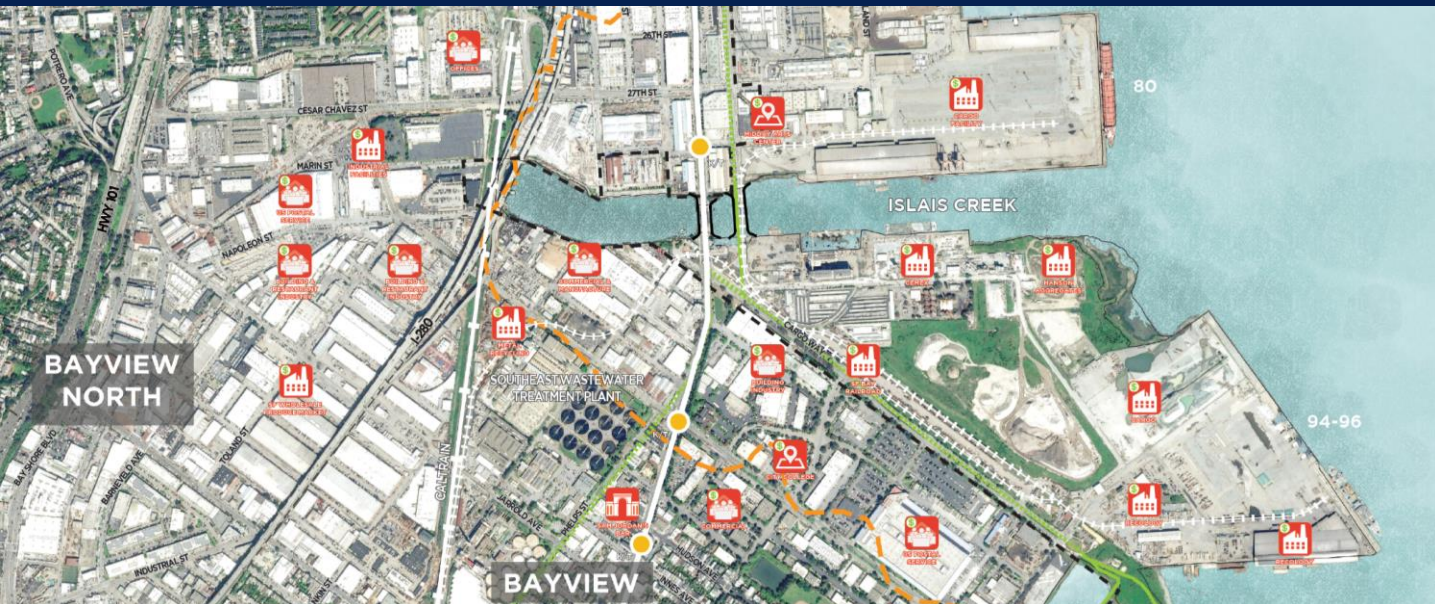
WORK



VISIT



**INDUSTRIAL
FACILITIES**



PARKS AND ECOSYSTEMS



BAY TRAIL



PARKS



HABITAT

PARKS AND ECOSYSTEMS



BAY TRAIL



PARKS



HABITAT



MARITIME ASSETS



**MARITIME &
PUBLIC TRUST**



**CARGO &
INDUSTRY**

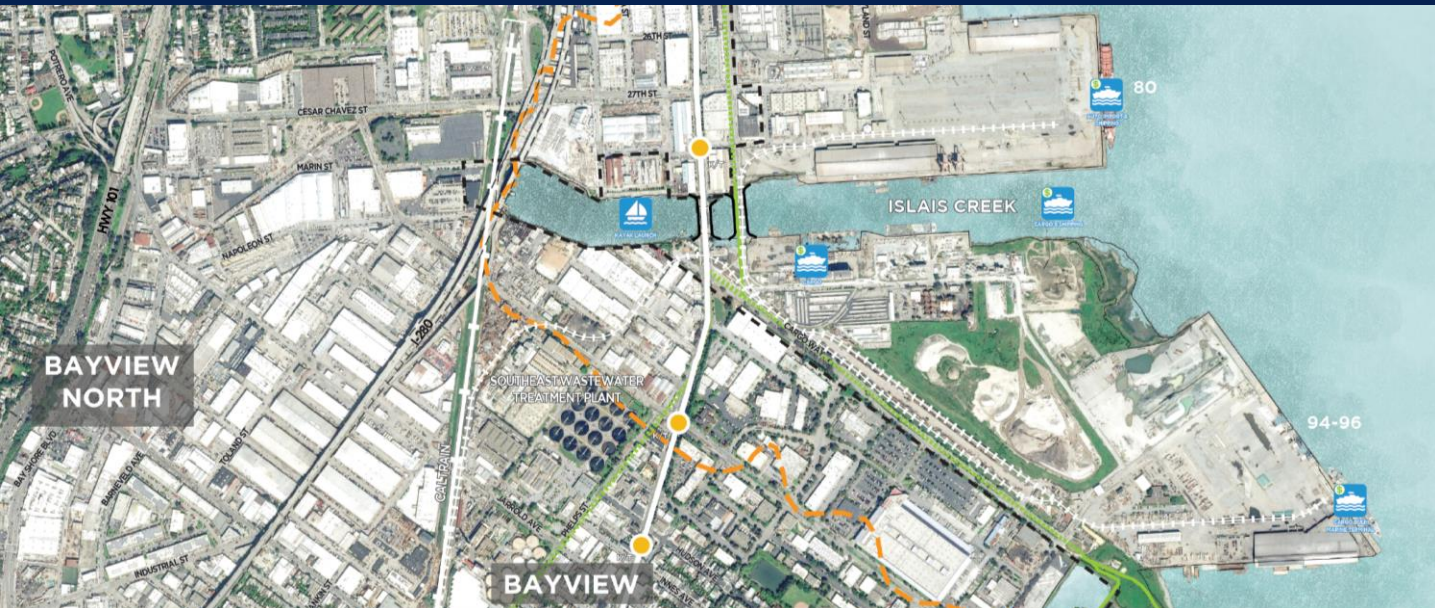
MARITIME ASSETS



**MARITIME &
PUBLIC TRUST**



**CARGO &
INDUSTRY**



HEALTH & SAFETY



EMERGENCY
SERVICES



HEALTH &
SAFETY



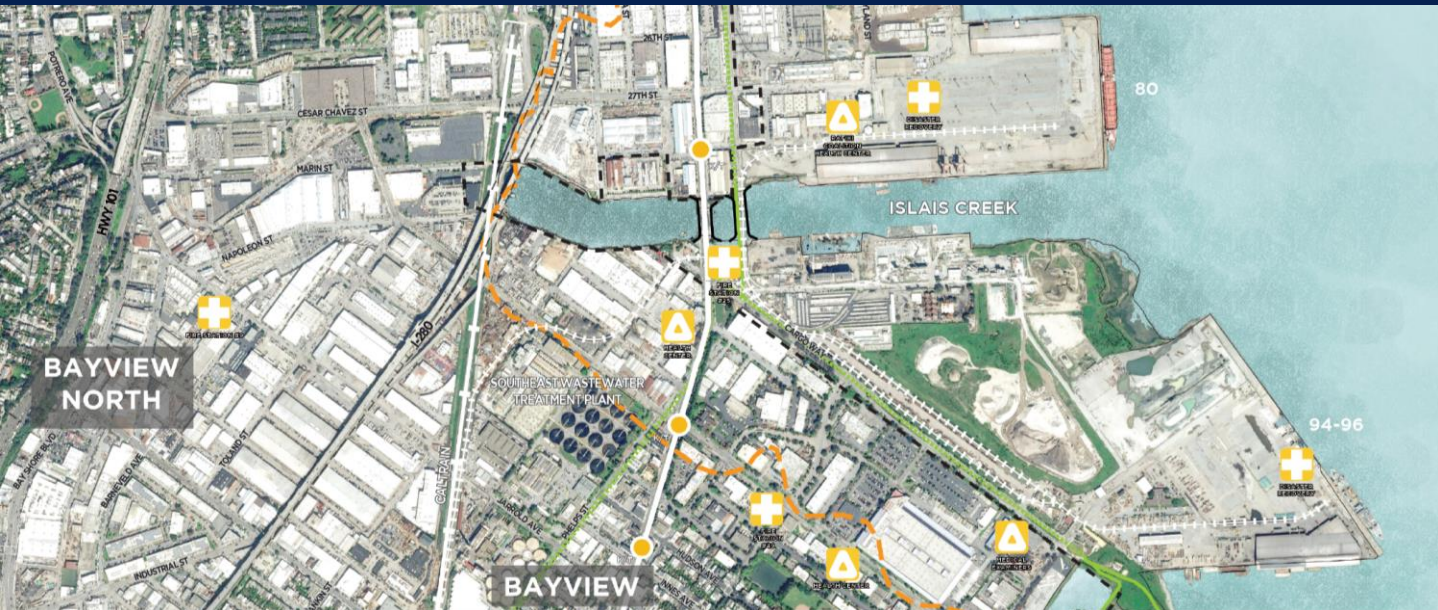
HEALTH & SAFETY



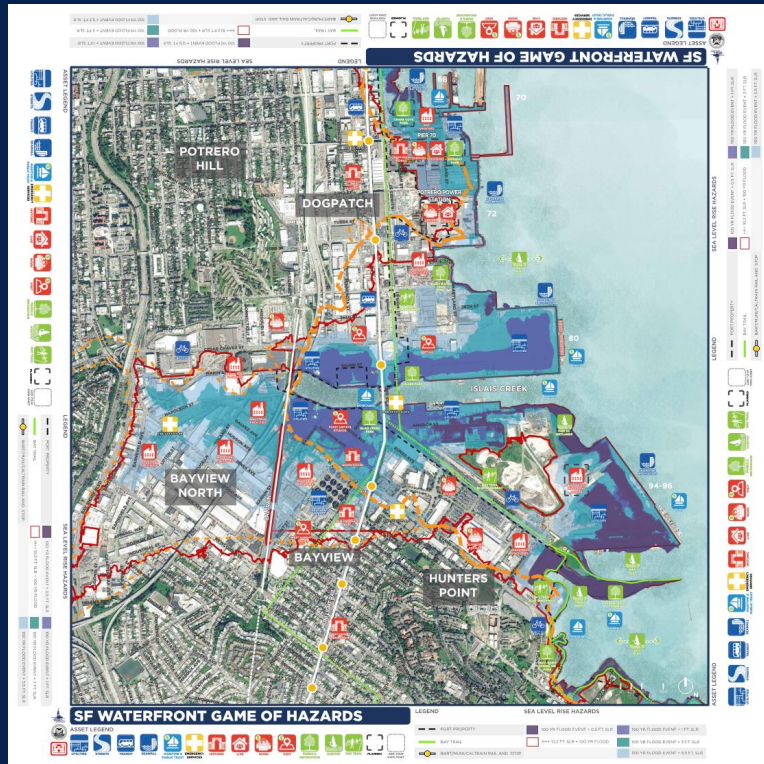
EMERGENCY
SERVICES



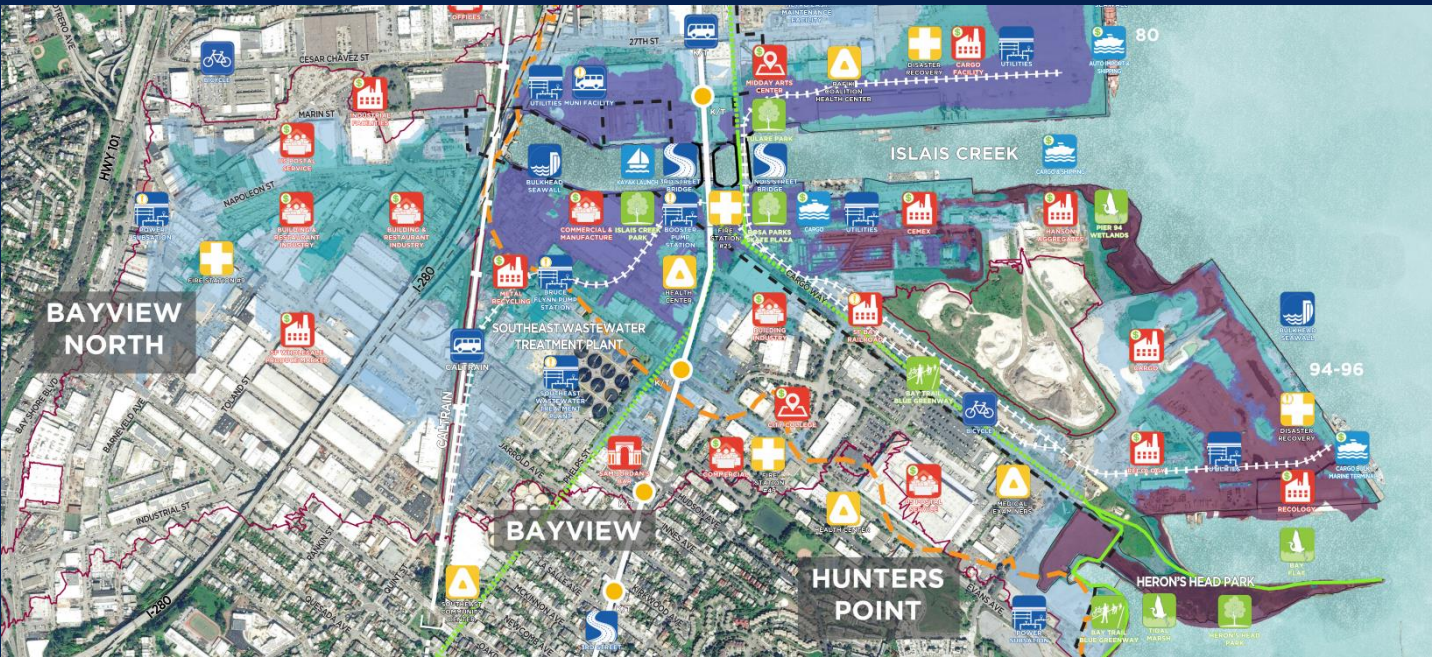
HEALTH &
SAFETY



THE GAME



STEP 1: STUDY THE MAP



STEP 1: AND TELL US WHAT WE MISSED



5 min

STEP 2: SAY WHAT YOU LOVE ABOUT THE CREEK AND SHORELINE



STEP 2: SAY HOW YOU USE THIS AREA / WHAT BRINGS YOU HERE



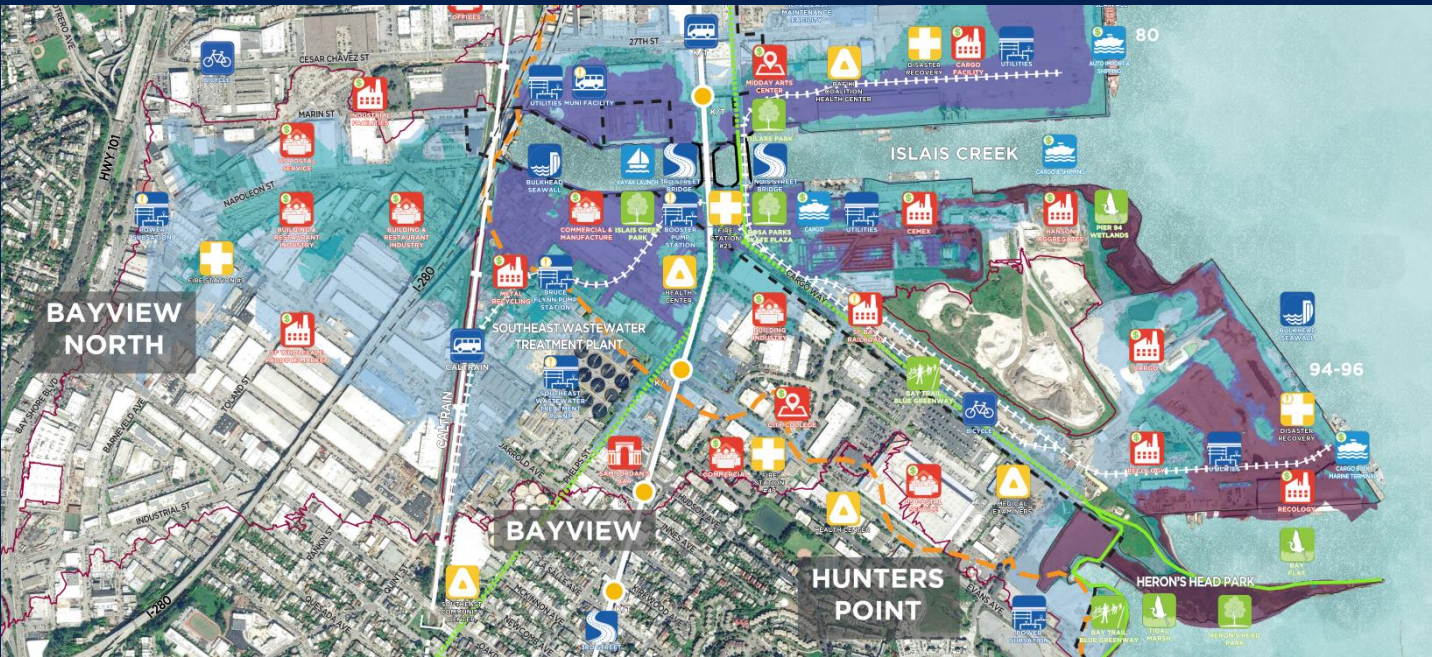
I go here because...

STEP 2: AND WHAT IS MOST IMPORTANT TO THE CITY

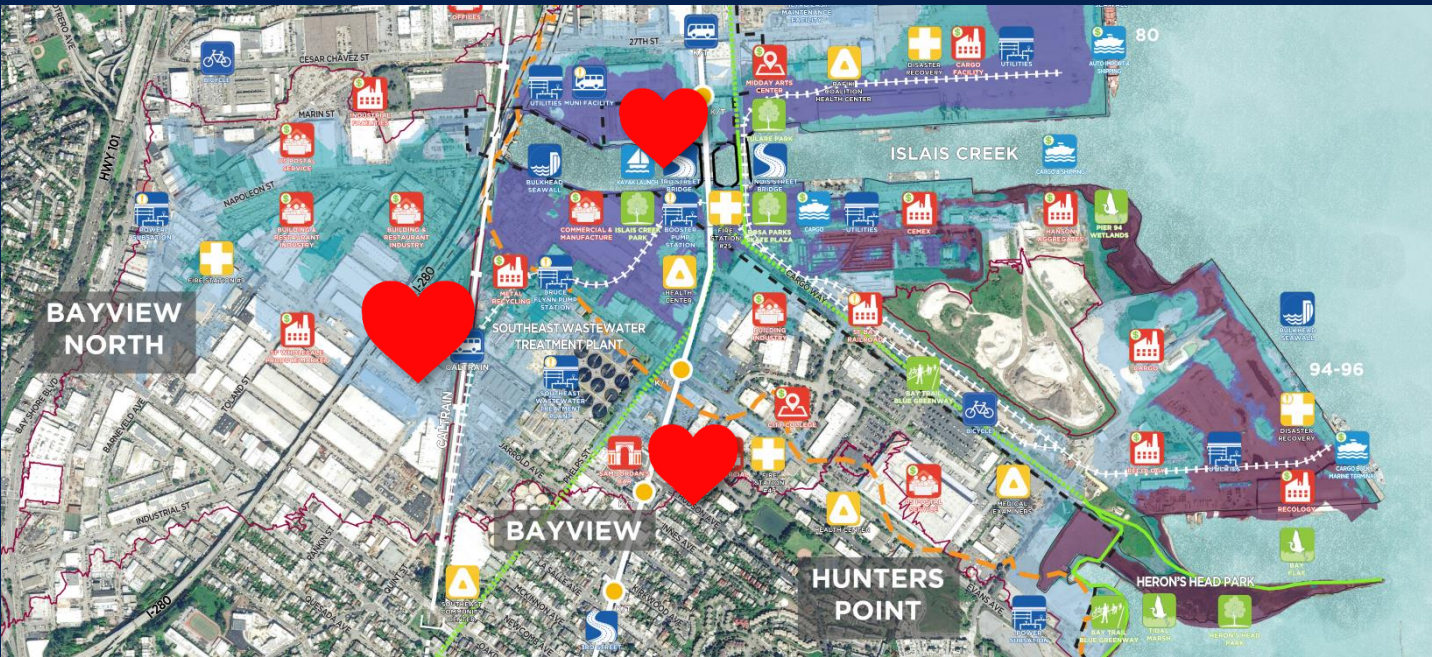


10 min

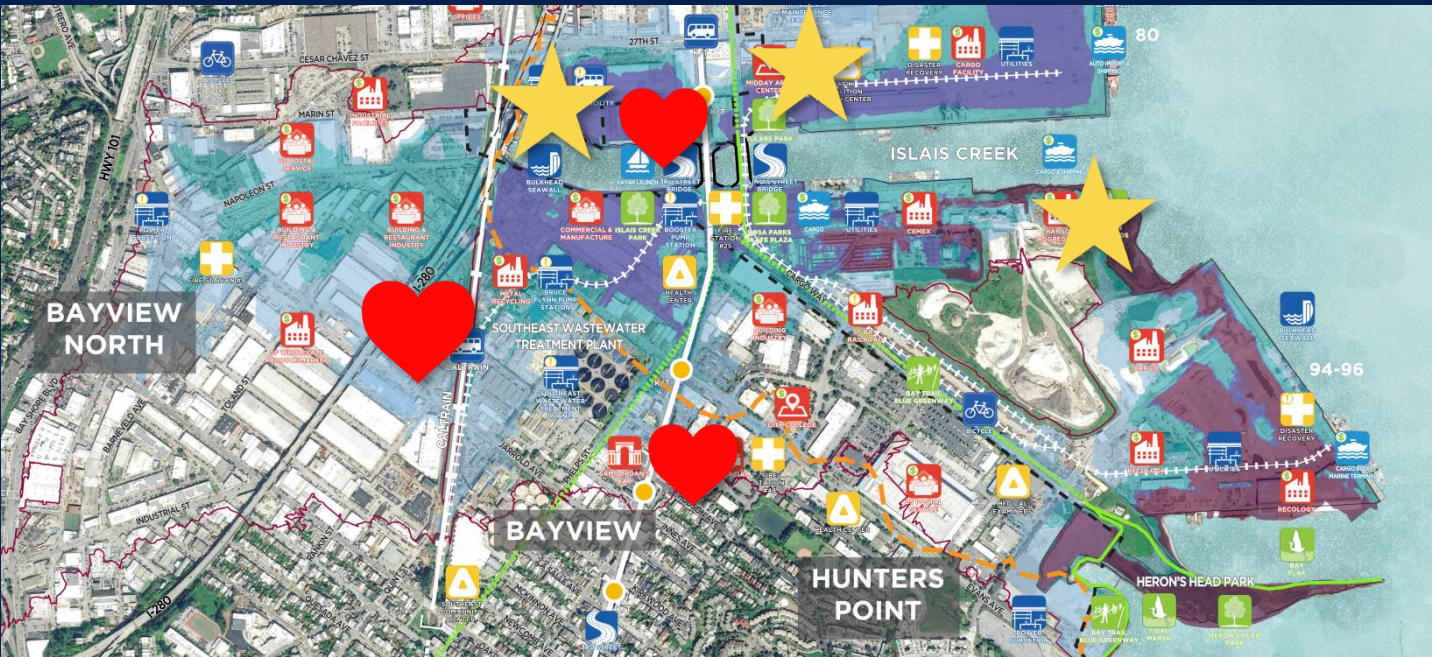
STEP 2: DECIDE WHAT YOU LOVE THE MOST AS A GROUP



STEP 2: DECIDE WHAT YOU LOVE THE MOST AS A GROUP

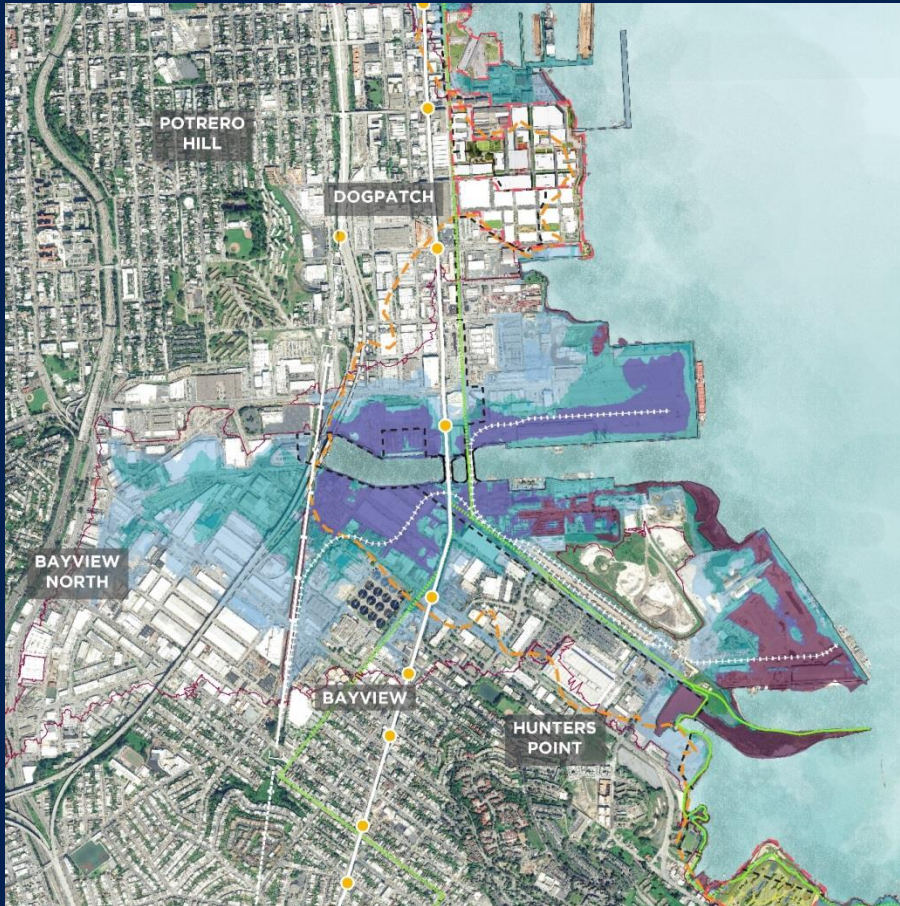


STEP 2: AND WHAT'S MOST IMPORTANT TO THE CITY



3 min

STEP 3: CONSIDER FLOODING

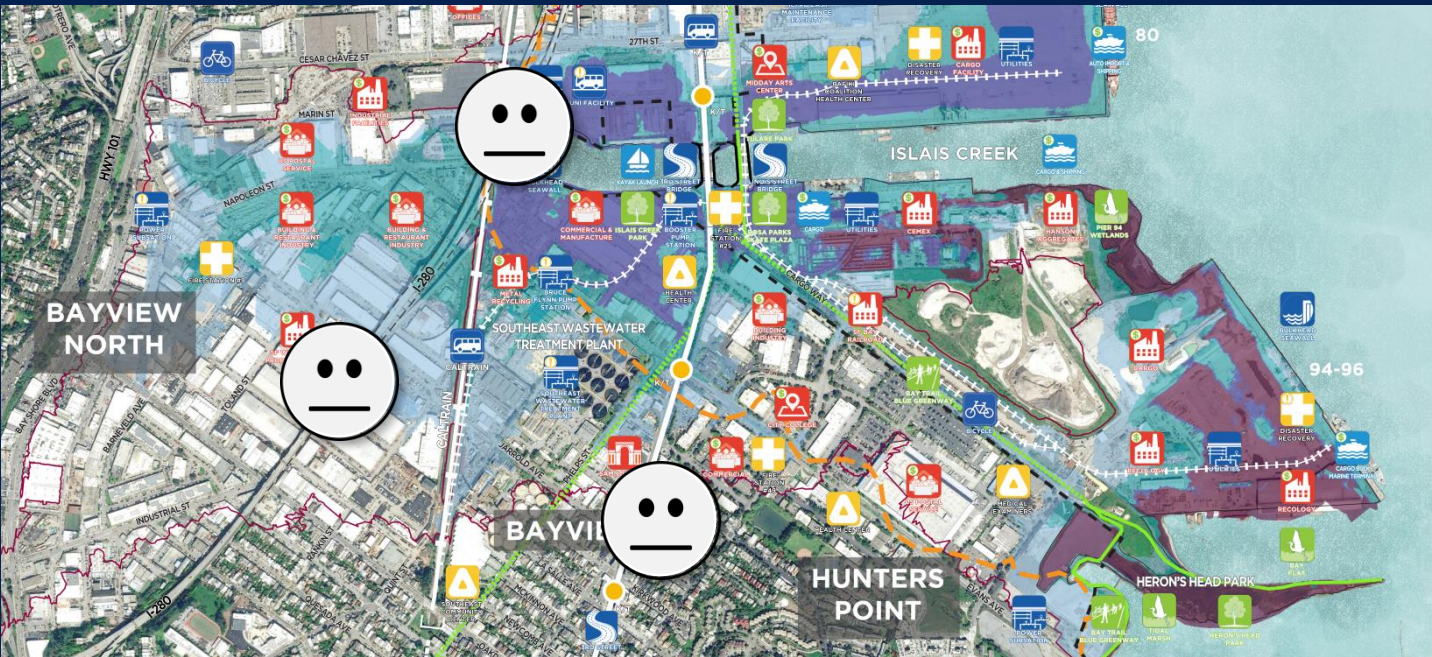


...SHARE WHAT CONCERNS YOU THE MOST



10 min

STEP 3: DECIDE AS A GROUP WHAT CONCERNS YOU THE MOST

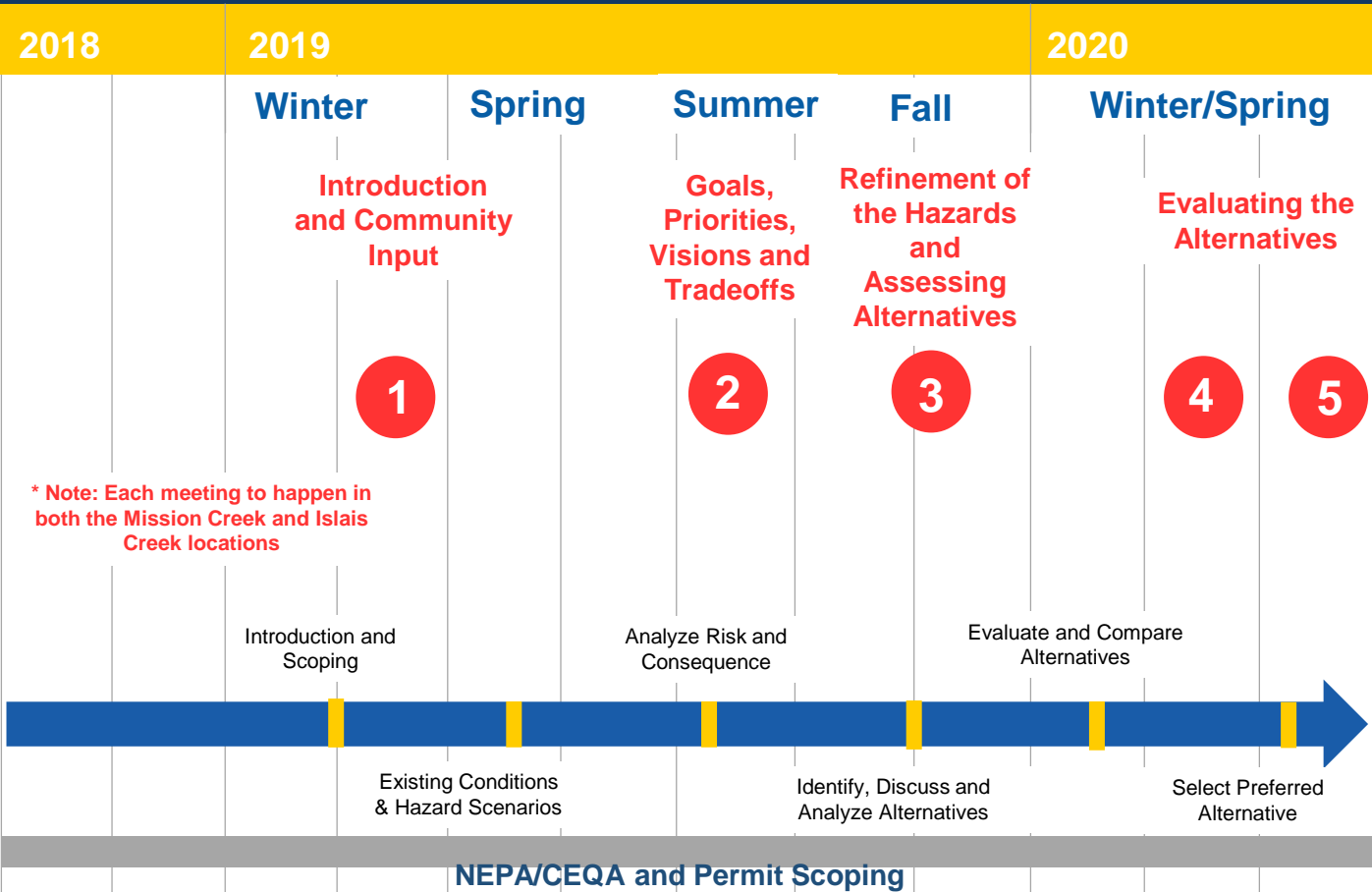


3 min

STEP 4: REPORT OUT



6 min



RULES OF THE GAME

- Be a polite fellow citizen and listener
- Recognize that this is a game
- Follow the instructions and guidance of your facilitator
- Next meeting focus on detailed strategies – this is high level
- Have fun!

TIME TO FORM GROUPS

Hello
my name is

AWESOME!

