

Adapting to Rising Tides Program

BCDC Commission Meeting
April 4, 2019



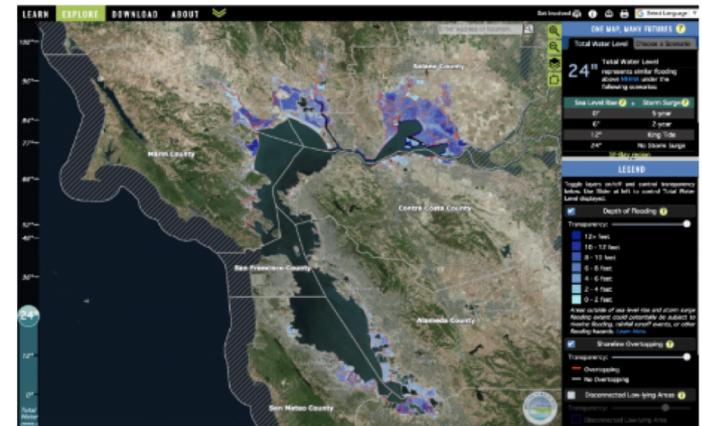
ART Program – Current and Past Projects



Bay Area Sea Level Rise Analysis and Mapping 	Local Hazard Mitigation and Climate Adaptation Plans 	Regional Resilience Partnerships 	Stronger Housing, Safer Communities
Alameda County ART Project 	Contra Costa County ART Project 	Hayward Shoreline Resilience Study 	Oakland/Alameda Resilience Study
Bay Area Transportation Climate Resilience 	Tidal Creeks and Flood Control Channels 	Corte Madera Baylands 	East Bay Regional Park District

Currently:

- ART Bay Area
- ART Eastern Contra Costa County



ART Planning Process

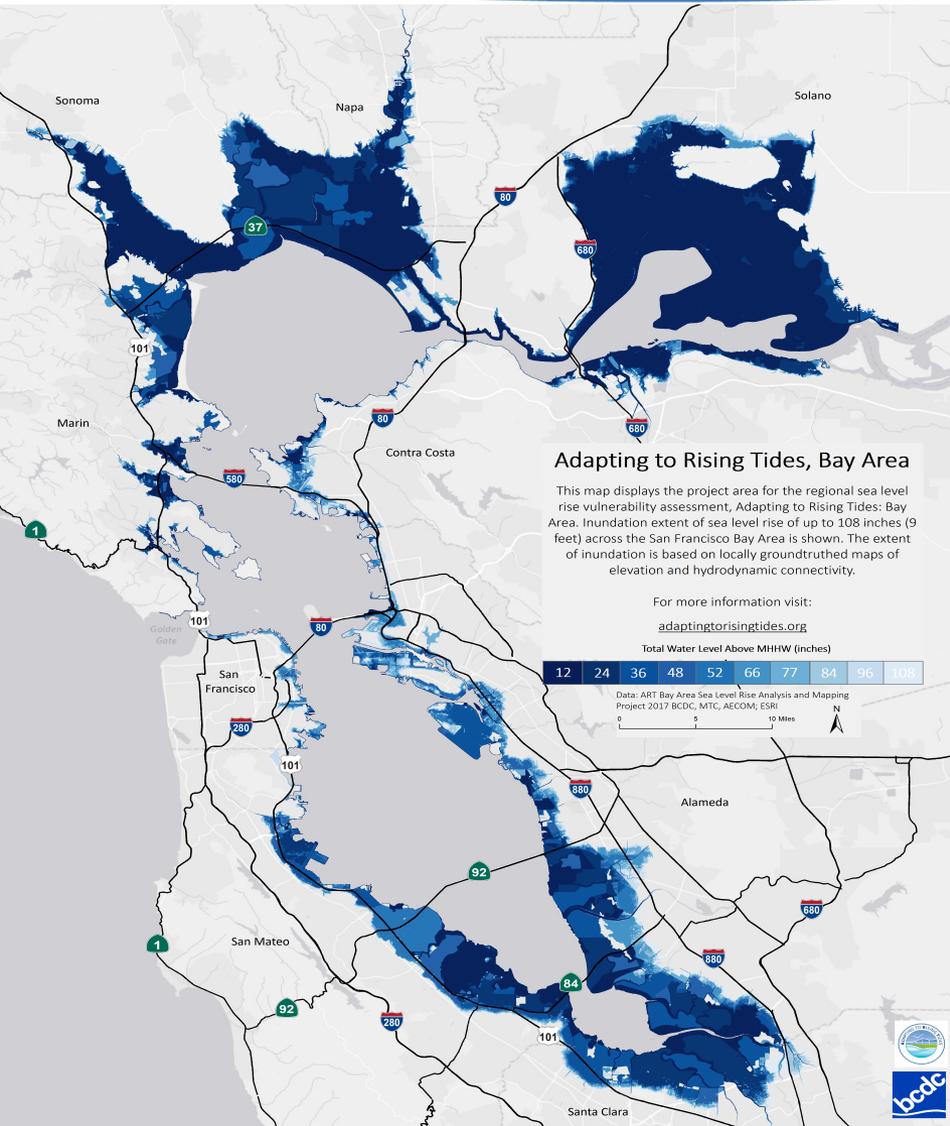


Adapting to Rising Tides

A decorative graphic consisting of two overlapping, wavy horizontal bands. The upper band is a medium blue color, and the lower band is a lighter, sky-blue color. They overlap in the center, creating a darker blue area.

Bay Area

ART Bay Area Project Overview



- Complete regional-scale vulnerability assessment in four asset categories
- Establish framework for prioritizing regional-scale adaptation planning
- Increase public participation and local capacity to engage in planning and implementation over long term
- Coordinate with partners to apply project results to related efforts, such as MTC's Horizon effort and Plan Bay Area 2050



Project Timeline



We are here



RWG 3 **RWG 4** **RWG 5** **RWG 6**

RWG 10 **RWG 11** **RWG 12**

Spring/ Summer/
Fall 2018

Winter/Spring
2019

Spring 2019

Conduct Assessments

Transition to
Adaptation

Finalize
Indicators and
Framework

Project Initiation
and Scoping

Determine
Assessment
Outcomes

Develop
Adaptation
Responses

Evaluate and
Prioritize Adaptation
Responses

Fall/Winter 2017

Fall/Winter 2018

Spring 2019

Spring/Summer
2019

RWG 1 **RWG 2**

RWG 7 **RWG 8** **RWG 9**

RWG 1 **RWG 2**

RWG 7 **RWG 8** **RWG 9**

ART Bay Area Asset Categories

Transportation Infrastructure



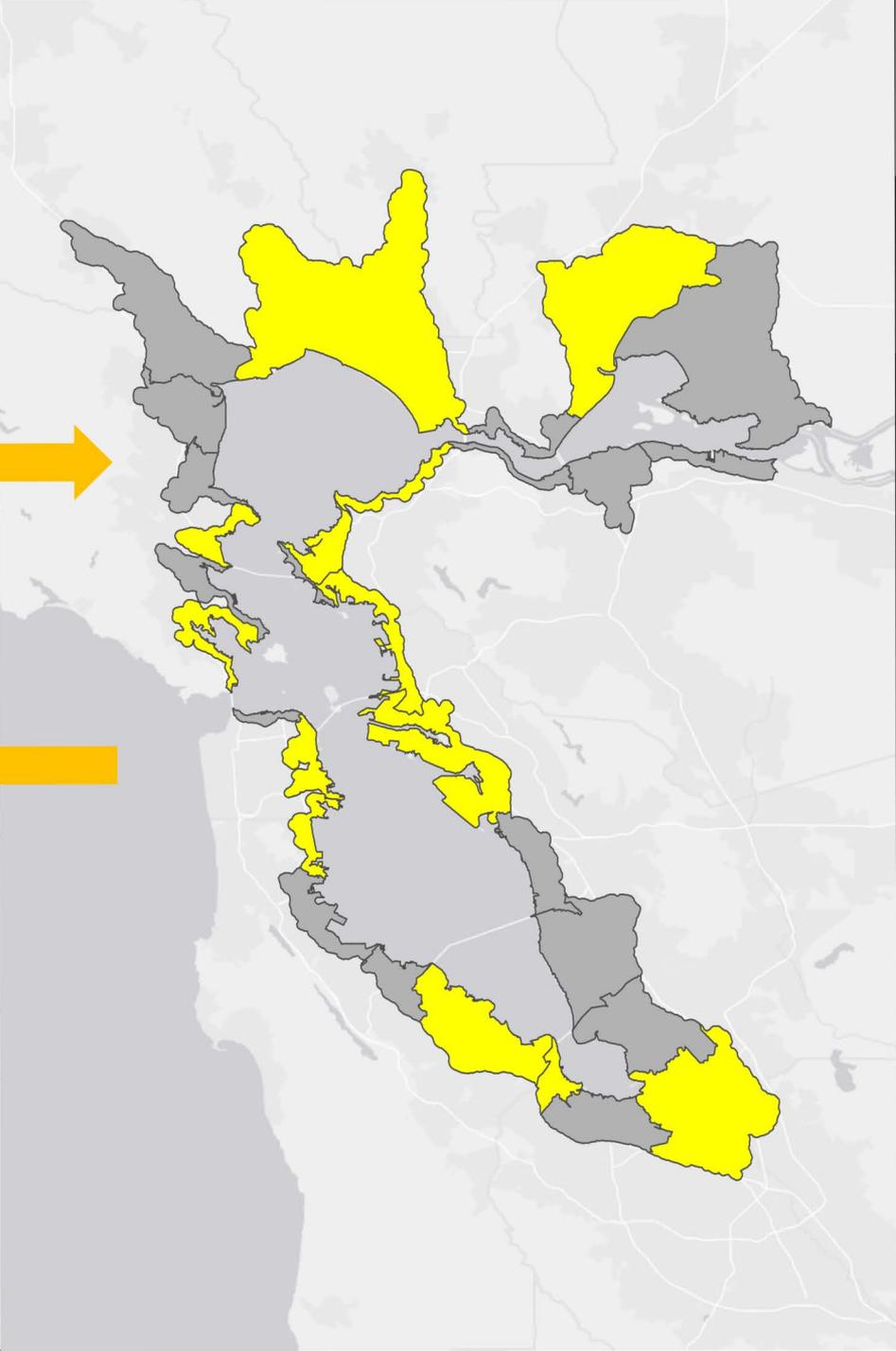
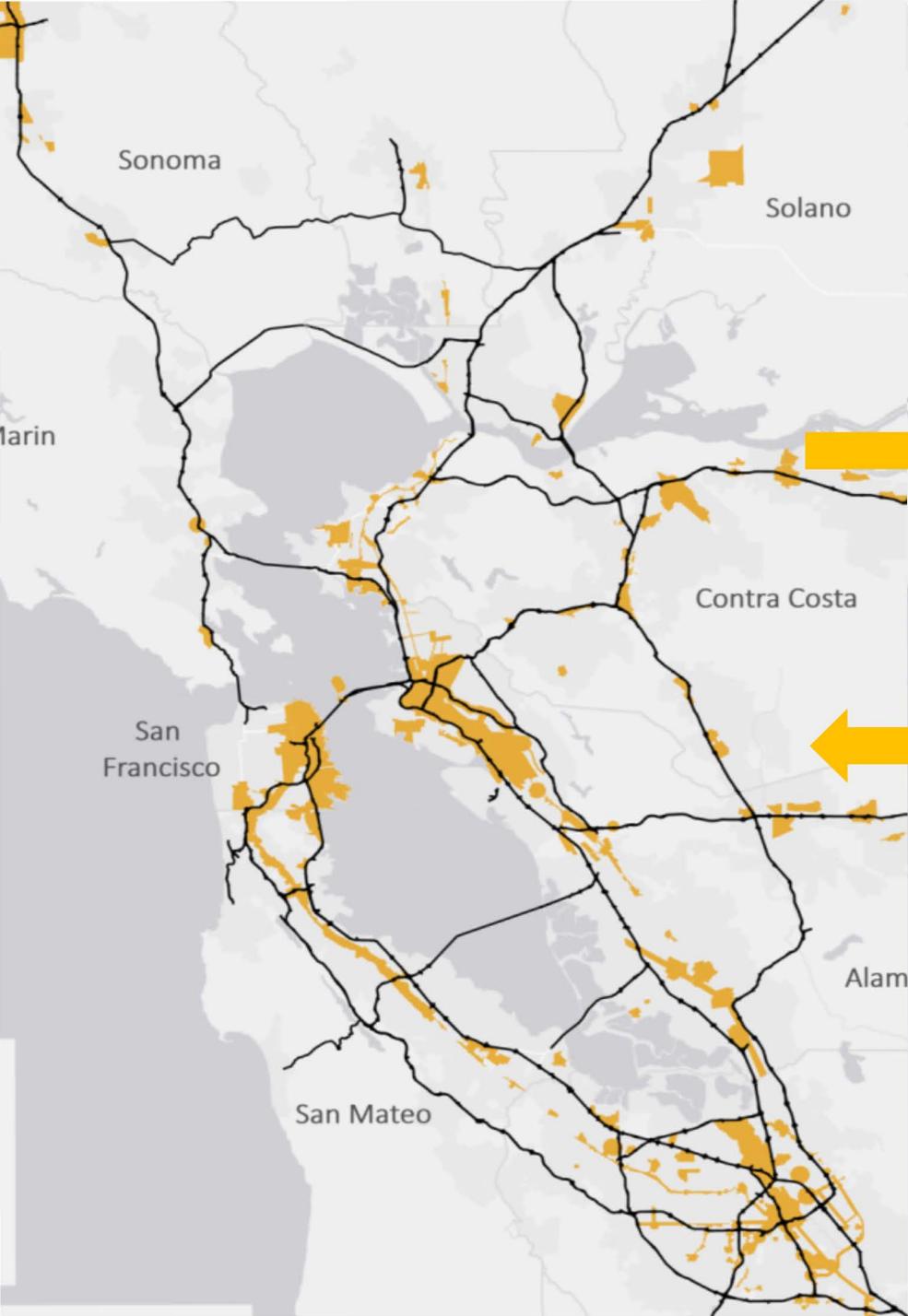
Priority Development Areas (PDAs)



Vulnerable Communities



Priority Conservation Areas (PCAs)



Regional Systems – Early Findings



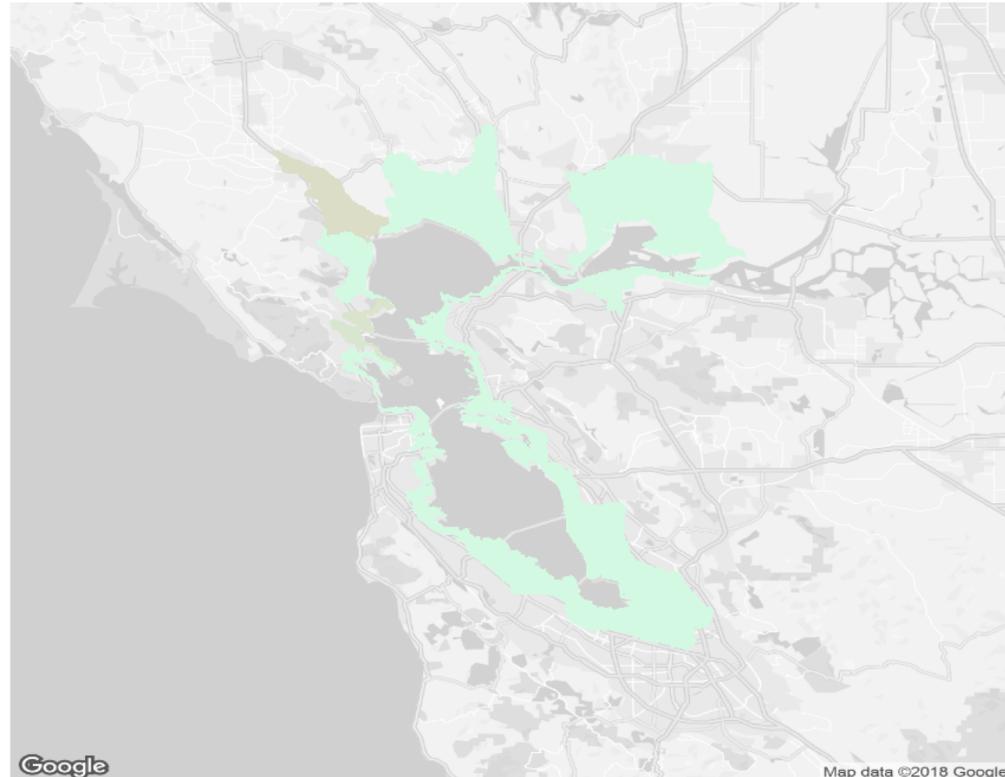
- Early exposure
- Possible thresholds
- Areas most impacted at the highest water level
- Disproportional exposure
- Vulnerabilities and consequences of exposure

Regional Systems – Early Findings



- Early exposure
- Possible thresholds
- Areas most impacted at the highest water level
- Disproportional exposure
- Vulnerabilities and consequences of exposure

Exposure to Total Water Level: 12
inches above mean higher high water



Google

Map data ©2018 Google

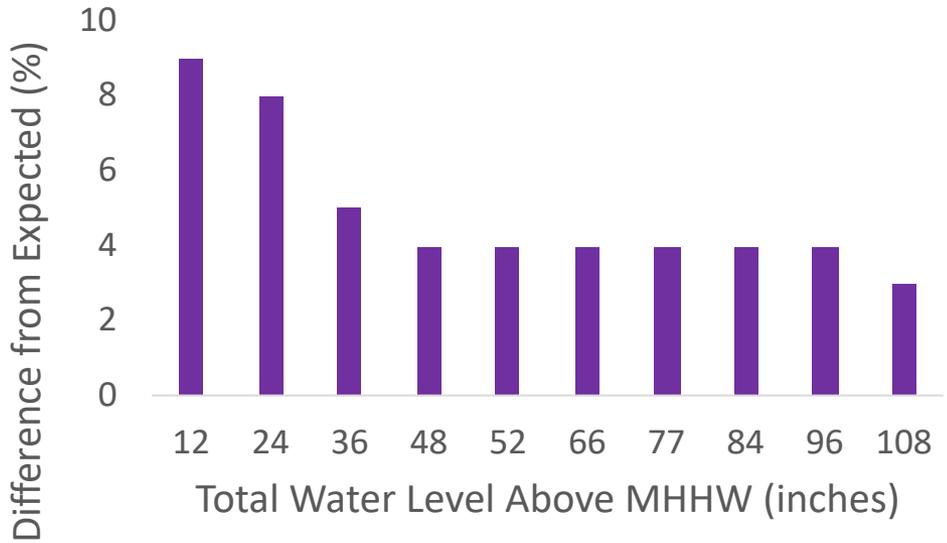
SLR data: BCDC's ART Bay Area Project
Regions: Operational Landscape Units by SFEI

Regional Systems – Early Findings

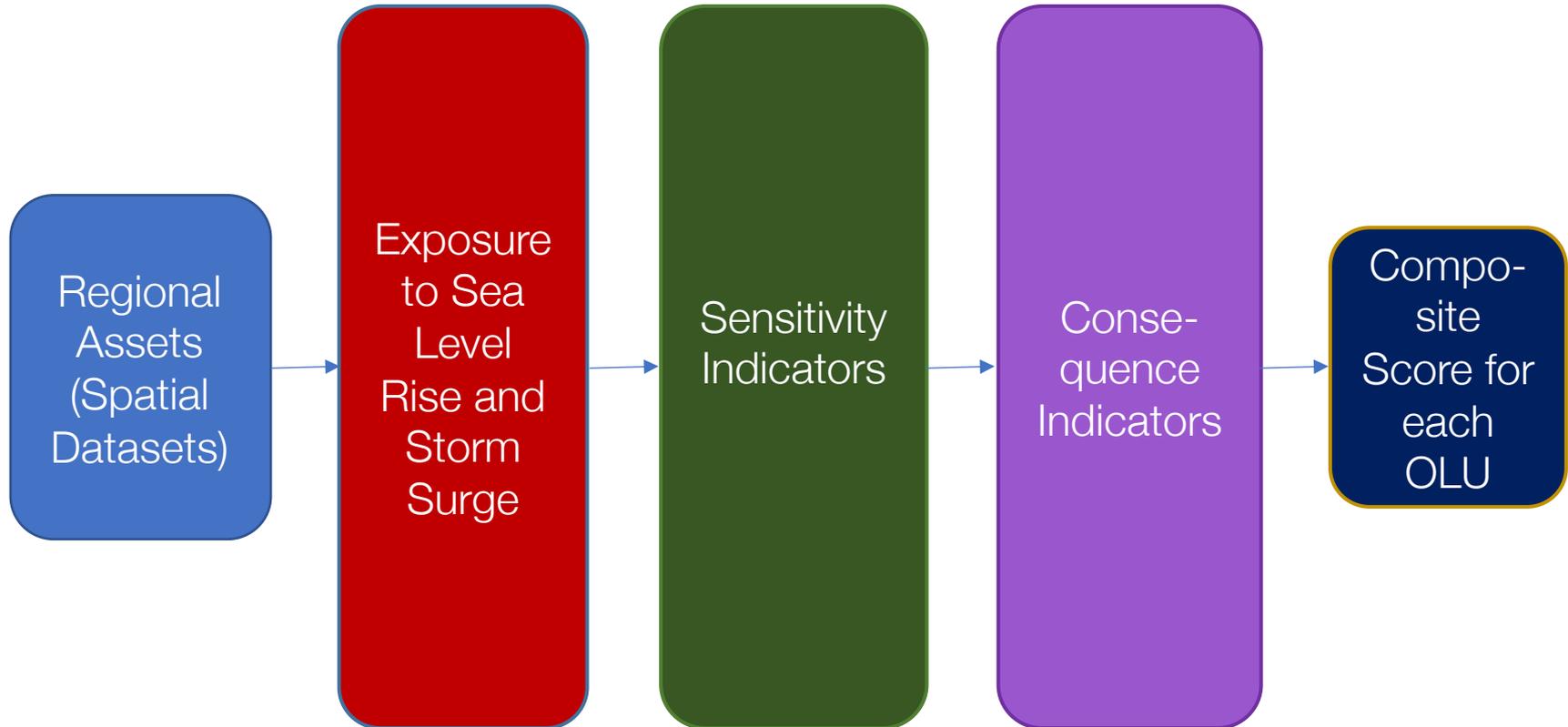


- Early exposure
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Disproportionate Impact of Flooding on Non-US Citizens



Regional Indicators Framework



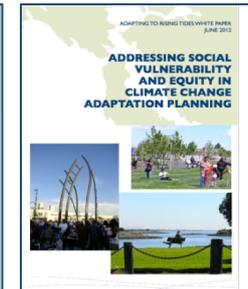
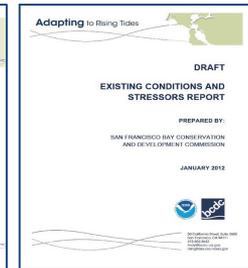
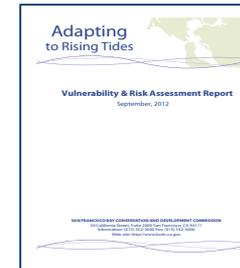
Community Engagement



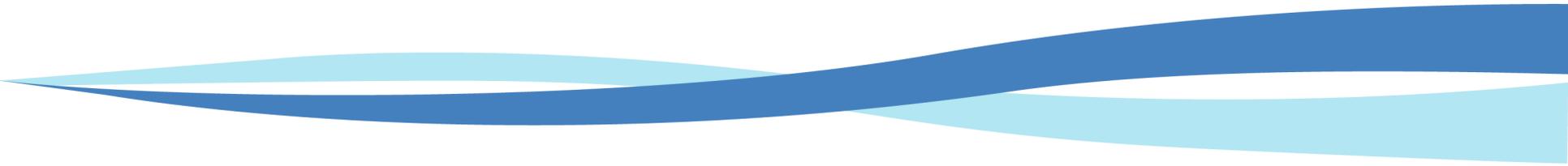
ART Bay Area Project Deliverables



- Audiences
 - Regional audiences with decision-making authority
County and local jurisdictions who can implement projects
- Products
 - Inputs to help facilitate regional and local decision-making around adaptation planning and projects
 - Data
 - Summarized findings
 - Maps
 - Framework scores
 - Toolkit of local and regional adaptation strategies
 - Regional Working Group members who have regional and local awareness and buy-in



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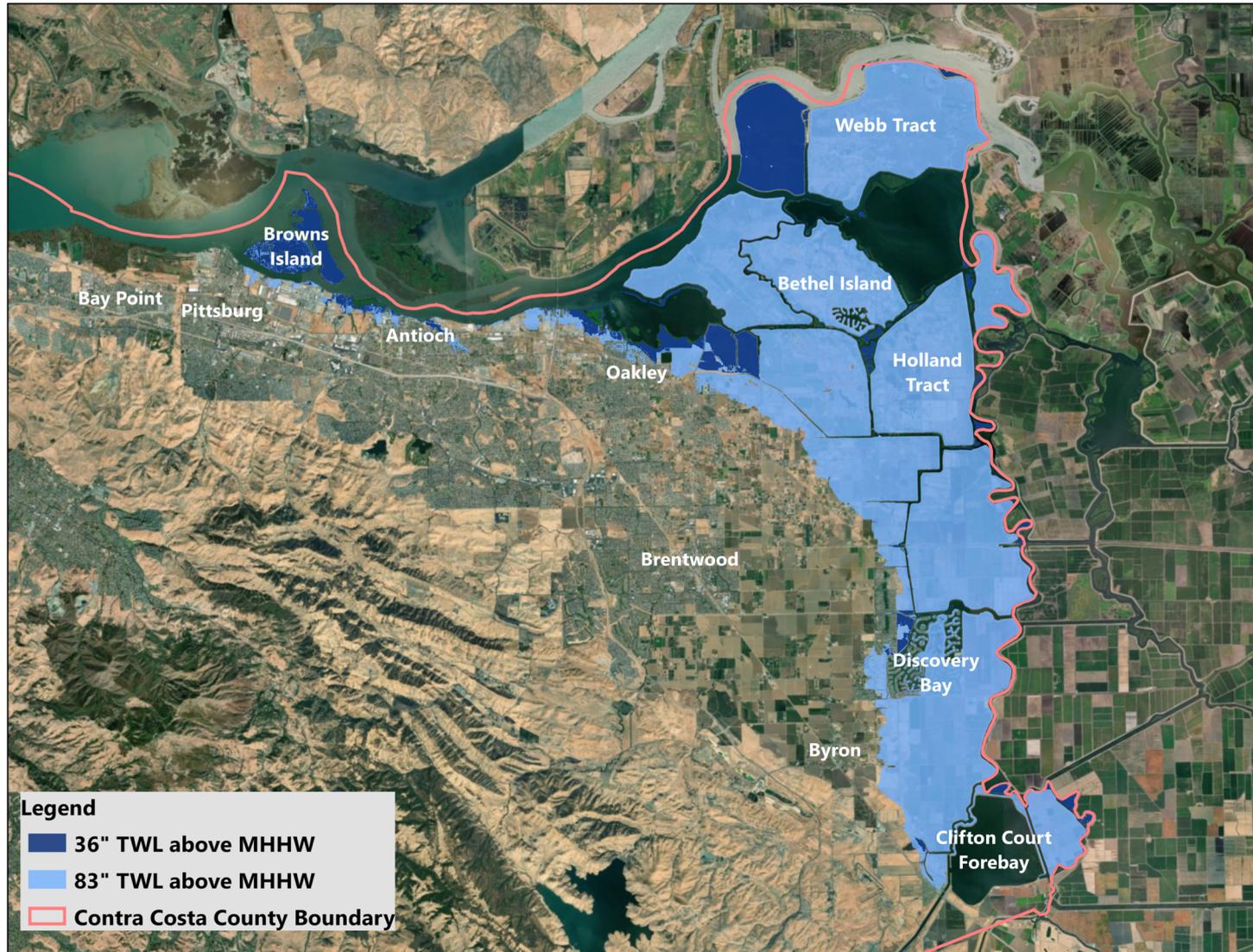


Eastern Contra Costa

Eastern Contra Costa Project Overview



DELTA
STEWARDSHIP
COUNCIL



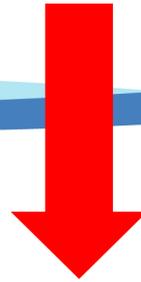
Sectors and Assets



- **Communities**
 - Individual, household, neighborhood demographics
 - Residential Housing
 - Single and multi-family, senior, dependent housing
- **Critical Facilities and Services**
 - Public health infrastructure
 - Emergency facilities and services
 - Community facilities
 - Waste collection and transfer stations
 - Schools
- **Business and Industry**
 - Industrial land uses
 - Hazardous Materials Sites
 - Commercial Land Uses
- **Parks and Recreation Facilities**
 - Shoreline parks
 - Bay trail and water trail
 - Marinas
 - Fishing piers
- **Water Supply**
 - Delta Intake Structures
 - Canals
- **Wastewater**
- **Flood Control**
 - Levees
 - Stormwater infrastructure
 - Shoreline Protection
- **Transportation**
 - Passenger and freight rail
 - Local, state and interstate roads
 - Marine terminals
- **Energy and Fuel Supply**
 - Pipelines
 - Power generation
 - Power distribution (substations)
- **Open Space and Natural Areas**
 - Agricultural Lands
 - Tidal Marshes
 - Wildlife Refuges

Project Timeline

We are here



WG 1



WG 2



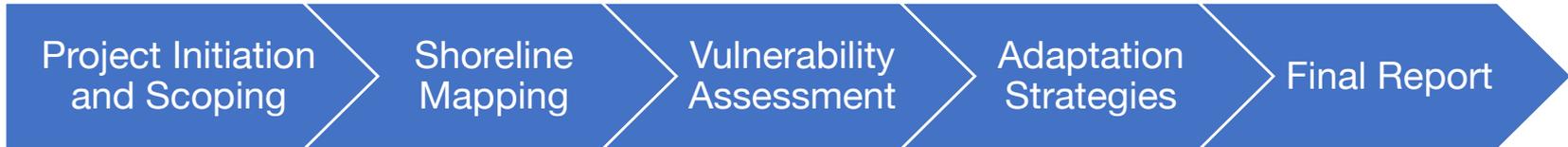
WG 3



WG 4



WG 5



Fall 2017

Winter
2017 –
Winter
2018/9

Spring/
Summer
2019

Summer/
Fall 2019

December
2019

What's Next for the ART Program?

Possible Project Areas:

- Complete missing pieces of region-wide vulnerability assessments
- Additional technical research
- Advancing implementation of adaptation strategies locally
- Advancing a regional vision for coordinated adaptation (RAP)



Discussion

- How do we best communicate our findings to help advance adaptation planning?
- Which next steps are most exciting to you?
- What are gaps in regional assessment?
- What are gaps in technical information?
- What other tools do local jurisdictions need to advance adaptation work?

