



Resiliency Port of San Diego

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Prevention First 2018 Symposium.
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Overview

- Introduction to the Port of San Diego
- Resiliency and Climate Action Planning
- Climate Adaptation & Coastal Resiliency



PORTof
SAN DIEGO

Jurisdiction

5 member cities

22 public parks

2 cargo terminals

2 cruise ship terminals

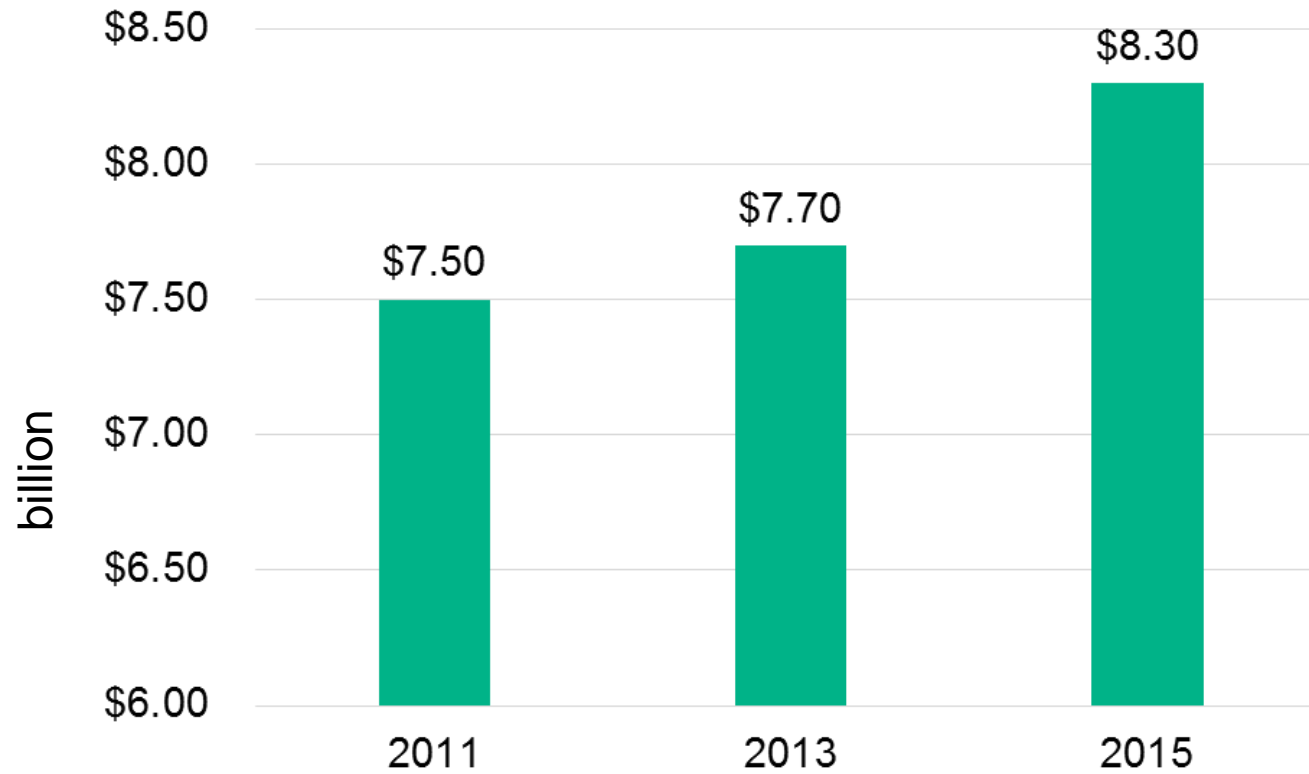
34
miles of
waterfront

2,403
acres of
land

3,535
acres of
water

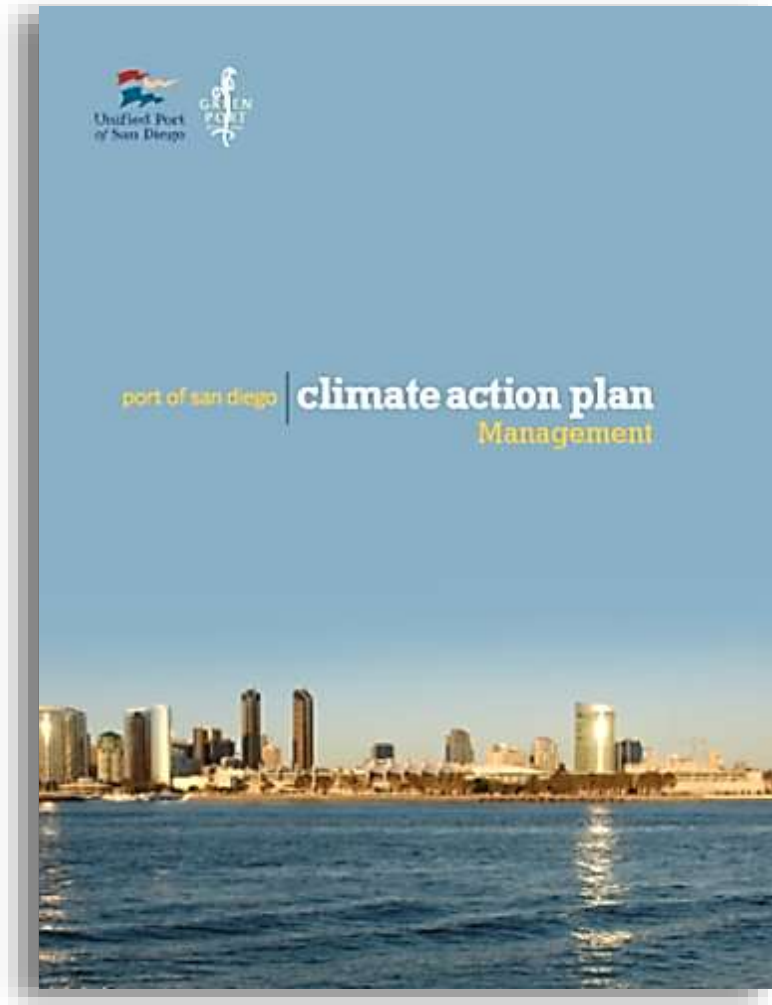


Regional Economic Role



\$8.3
BILLION

9% increase
from 2013 to 2015



Climate Action Plan

- Climate Action Plan adopted in 2013
- Improved guidance and science regarding adaptation to impacts of climate change
- Current focus, developing a framework for addressing coastal resiliency

Climate Adaptation & Coastal Resiliency

Coastal Flooding

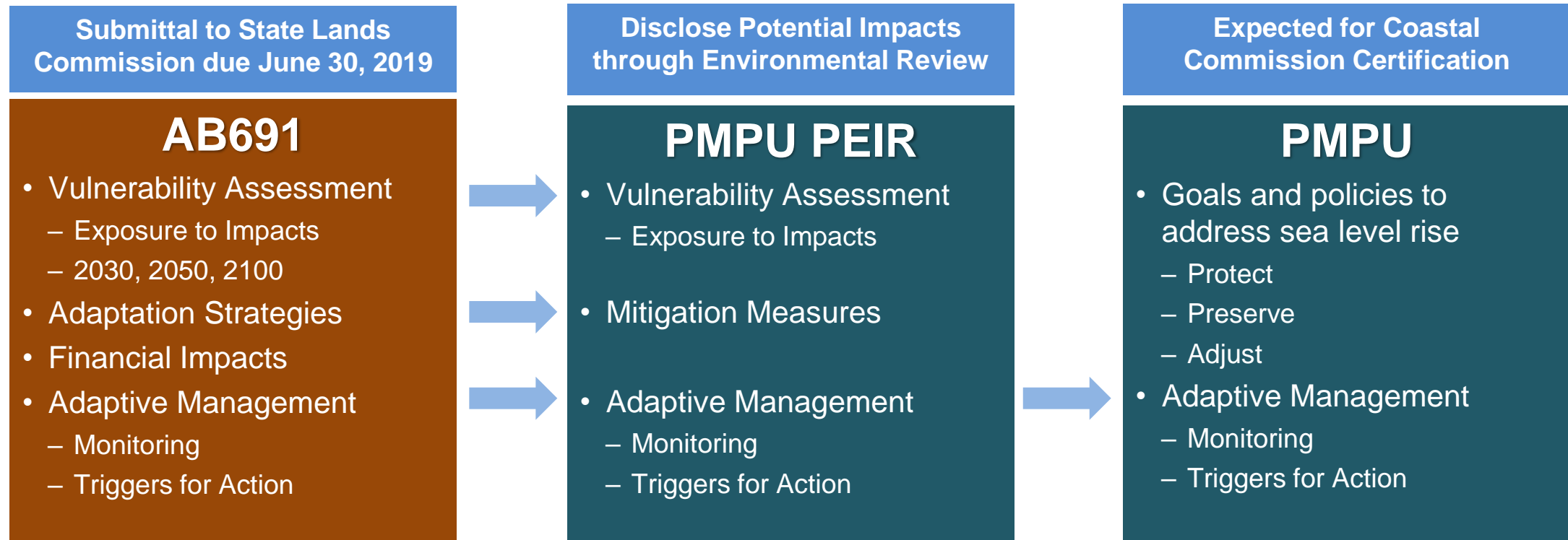


Drivers for Climate Adaptation & Coastal Resiliency

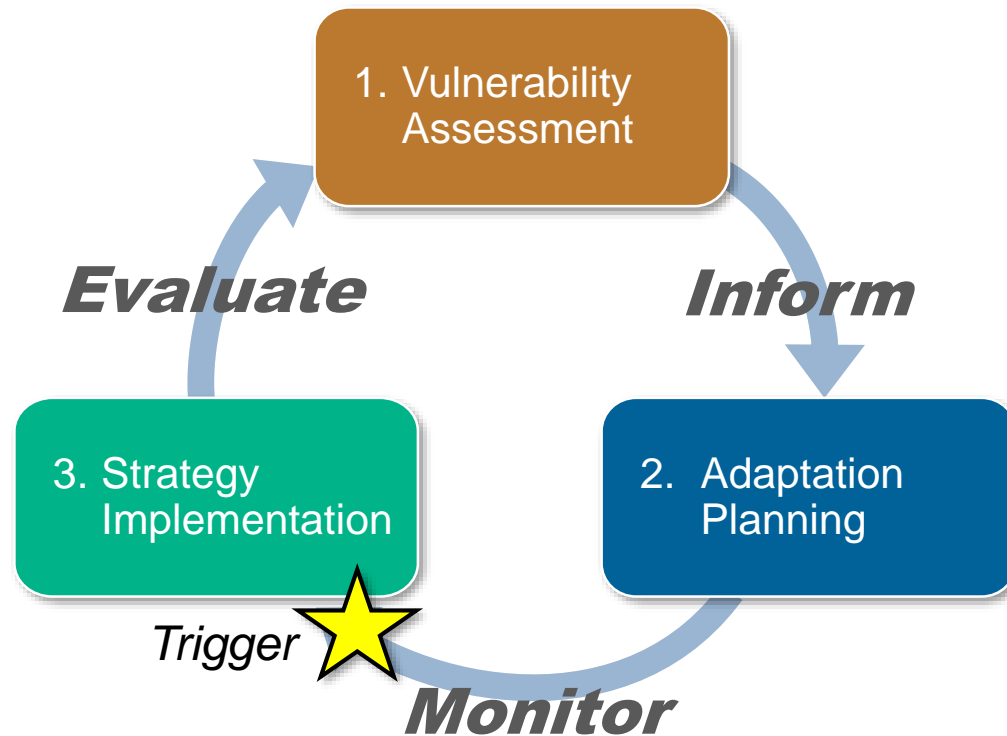
- Water-dependent resource
- Existing flooding impacts
- Business continuity
- Regulatory requirements (Assembly Bill 691 State Lands)
- Coastal Commission Guidance
- Port Master Plan Update



AB691 and Port Master Plan Update



Sea Level Rise Planning Process



Plan and prepare for potential coastal flooding and inundation related to sea level rise.

Sea Level Rise Ad-Hoc Committee

Members

- Department of Navy
- Center for Sustainable Energy
- Port Tenants Association
- San Diego State University
- University of California, San Diego
- Shelter Island Marina
- US Fish and Wildlife
- Environmental Health Coalition
- Southwest Wetlands Interpretative
- California Coastal Commission
- Member Cities & Agencies

Advisors

Scripps Institution of Oceanography
Dr. Julie Kalansky

United States Geological Survey
Dr. Juliette Finzi-Hart

ICF International
Dr. Robert Kay

Nexus Planning & Research
Dennis Larson

Sea Level Rise Ad-Hoc Committee

2017

- Background on sea level rise science
- Review recommended sea level rise projections
- Review recommended coastal model
- Identify assets to be analyzed

2018

- Review vulnerability assessment hazard maps
- Review adaptive management approach
- Review adaptation planning process including adaptation scenario decision criteria
- Review recommended monitoring performance metrics

Memorandum of Agreement Coordinate on Sea Level Rise Planning



Planning Initiatives



- Port is evaluating impacts of sea level rise pursuant to Assembly Bill 691.
- Planning for nature-based solutions to protect coastal resources.
- DOD has conducted over 700 assessments of flooding at coastal installations worldwide.
- Navy has forged partnerships with state and local governments to advance sea level rise planning.

Memorandum of Agreement

First MOA between Navy and Port on the West Coast.
Appoints qualified staff to:

- Coordinate sea level rise planning initiatives
- Share sea level rise policies, assessments, and guidance
- Re-evaluate science every five years
- Identify complimentary adaptation strategies
- Implement pilot projects as feasible

Accommodation Adaption Strategies

Chula Vista Bayfront Master Plan



1. BUFFERS

- Buffers range from 50' to 200' feet
- Allow for opportunities for adaptive management of rising sea levels in this area

2. ELEVATE STRUCTURES

- 535 acre master planned development
- Soil added to raise elevation in response to sea level rise

Living Shoreline

Living Shoreline

Native Oyster Reefs

- Native oyster recruitment
- Unarmored shoreline
- Adjacent to marshland
- Moderate to high wave energy environment
- 2,300 linear feet of shoreline



Living Shoreline



“Living shorelines utilize natural habitat elements to protect shorelines from erosion while providing critical habitat for fish, wetlands and aquatic plants, as well as wildlife”

Partners include:

- Port of San Diego
- California Coastal Conservancy
- US Fish & Wildlife Service Coastal Program
- Technical Advisory Committee



Native Oyster Reefs

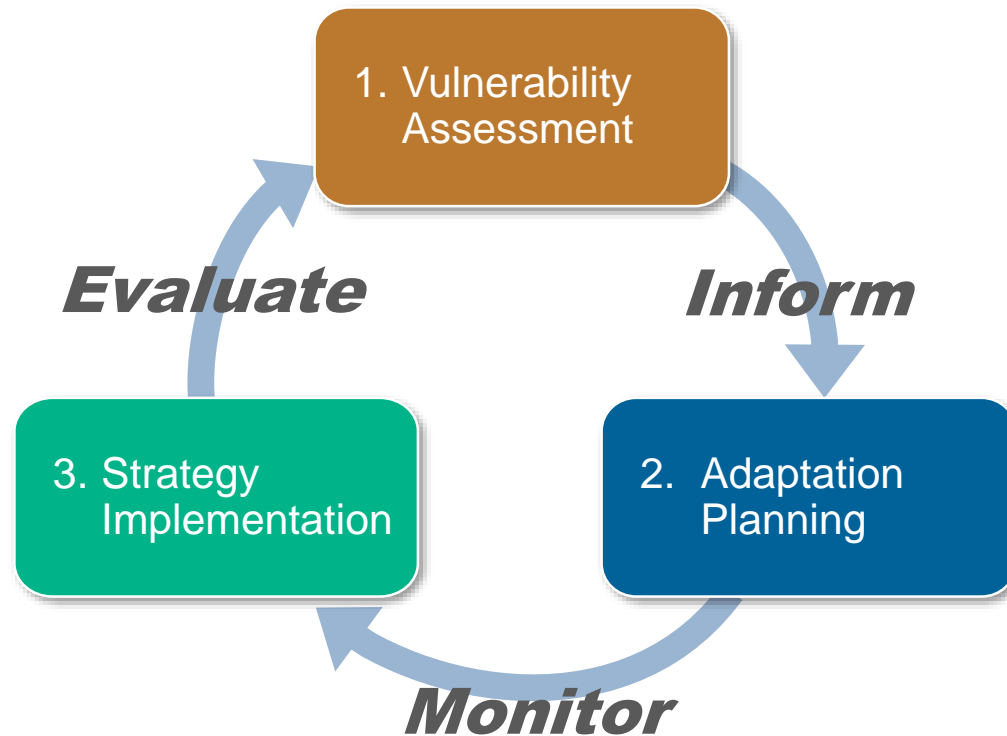
Stormwater Treatment Control System

Stormwater Treatment Control System

- Water quality treatment constructed as part of the project has been expanded beyond regulatory requirements from 9.3 acres to the entire drainage area of 41.4 acres.
- Provides opportunity for stormwater catchment associated with storm surge and wave overtopping.



Adaptive Management Process



Periodically incorporate updated science, consider revised guidance, and respond to new and existing regulations.



Questions / Discussion



**PORT of
SAN DIEGO**
Environment

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