

CALIFORNIA COASTAL COMMISSION

SEA LEVEL RISE ADAPTATION PLANNING

IMPLEMENTING STATEWIDE SLR GUIDANCE

City of Pacifica



Photo Credit: Kelsey Ducklow

CMANC
Quarterly Meeting
11/22/2019

Kelsey Ducklow
Climate Change Analyst

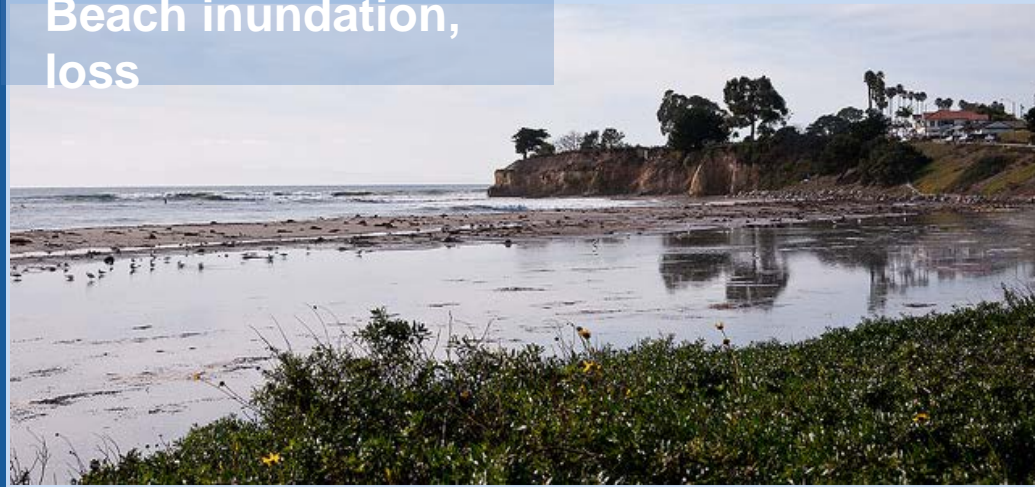


CALIFORNIA
COASTAL
COMMISSION



SEA LEVEL RISE IMPACTS

**Beach inundation,
loss**



**Recreation/access
impacts**

**Bluff
erosion**



**Critical asset, public service
impacts**





STATEWIDE SLR PLANNING

S-13-08: State climate strategy & SLR adaptation

B-30-15: Climate change considerations in planning and investment

AB 2800: State agency consideration of climate change; impacts to infrastructure

SB 379: Climate adaptation in safety elements

AB 691: SLR vulnerability assessments for public trust lands



CALIFORNIA OCEAN PROTECTION COUNCIL

John Laird, Secretary for Natural Resources, Council Chair
Gavin Newsom, Lieutenant Governor, State Lands Commission Chair
Linda Adams, Secretary for Environmental Protection
Susan Golding, Public Member
Gerakline Knatz, Public Member
Fran Pavley, State Senator
Toni Atkins, State Assemblymember

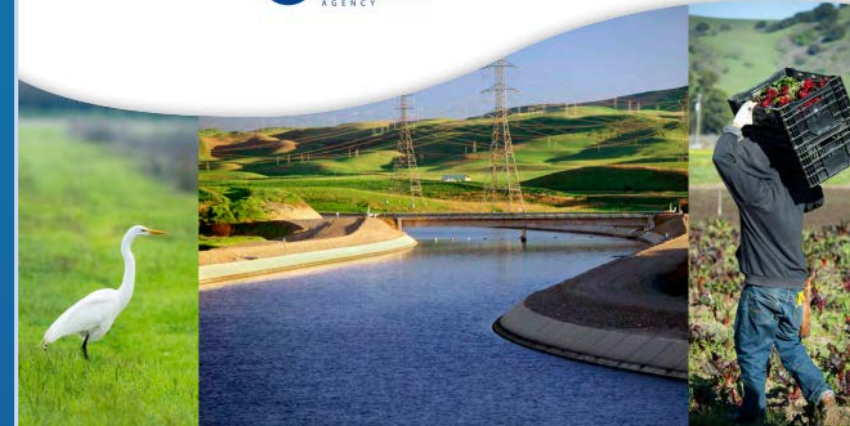
STATE OF CALIFORNIA SEA-LEVEL RISE GUIDANCE DOCUMENT

Developed by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT), with science support provided by the Ocean Protection Council's Science Advisory Team and the California Ocean Science Trust



Safeguarding California Plan: 2018 Update

California's Climate Adaptation Strategy | January 2018





CCC SLR POLICY GUIDANCE



CALIFORNIA COASTAL COMMISSION SEA LEVEL RISE POLICY GUIDANCE

*Interpretive Guidelines for Addressing
Sea Level Rise in Local Coastal Programs
and Coastal Development Permits*



Original Guidance unanimously adopted – August 12, 2015
Science Update unanimously adopted – November 7, 2018

- Overarching guidance from the OPC State SLR Guidance, information specific to CCC context
- Guiding Principles
 - Use best available science
 - Precautionary approach
 - Prioritize natural adaptation options
 - Phased adaptation approaches



CCC BACKGROUND

- Section 30253: **New development shall...**
 - Minimize risks to life and property
 - Assure stability & structural integrity
 - Neither create nor contribute to erosion
 - Assure no protective devices needed for life of structure
 - Minimize energy consumption and vehicle miles traveled





CCC BACKGROUND

- Section 30235:
Shoreline Protection allowed for...
 - Coastal dependent uses
 - Public beaches
 - Existing (pre-Coastal Act) structures
 - **IN DANGER FROM EROSION**
- With **MITIGATION** to offset:
 - Loss of beach and sand
 - Other unavoidable impacts





CCC BACKGROUND

Special Communities



Habitat



Wetlands



Wildlife



Public Access



Agriculture

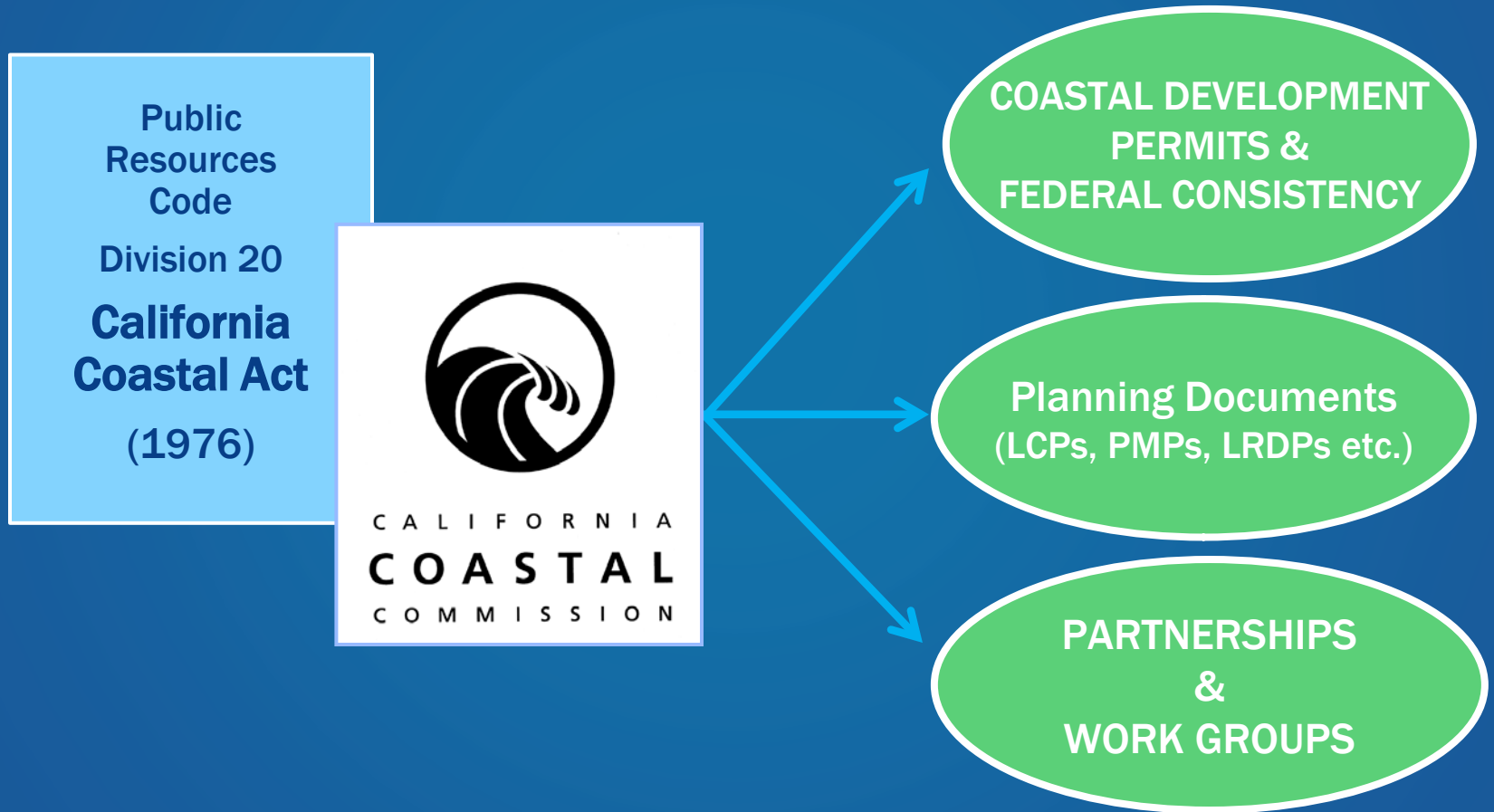
Scenic Views



Priority Land Uses



CCC BACKGROUND





IMPLEMENTATION – CDPs

1. Establish the projected sea level rise range for the proposed project

2. Determine how sea level rise impacts may constrain the project site

3. Determine how the project may impact coastal resources over time, considering sea level rise

4. Identify project alternatives to both avoid resource impacts and minimize risks to the project

5. Finalize project design and submit permit application

Site-specific geotechnical study

Project design and adaptation pathways



IMPLEMENTATION – CDPs

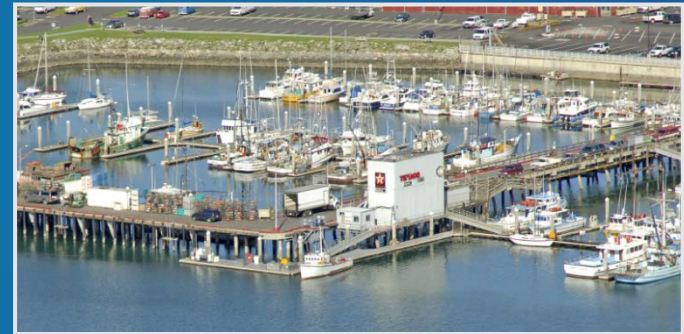
Low Risk Aversion Scenario

Use for projects that would have limited consequences or a higher ability to adapt



Medium-High Risk Aversion Scenario

Use for projects with greater consequences and/or a lower ability to adapt



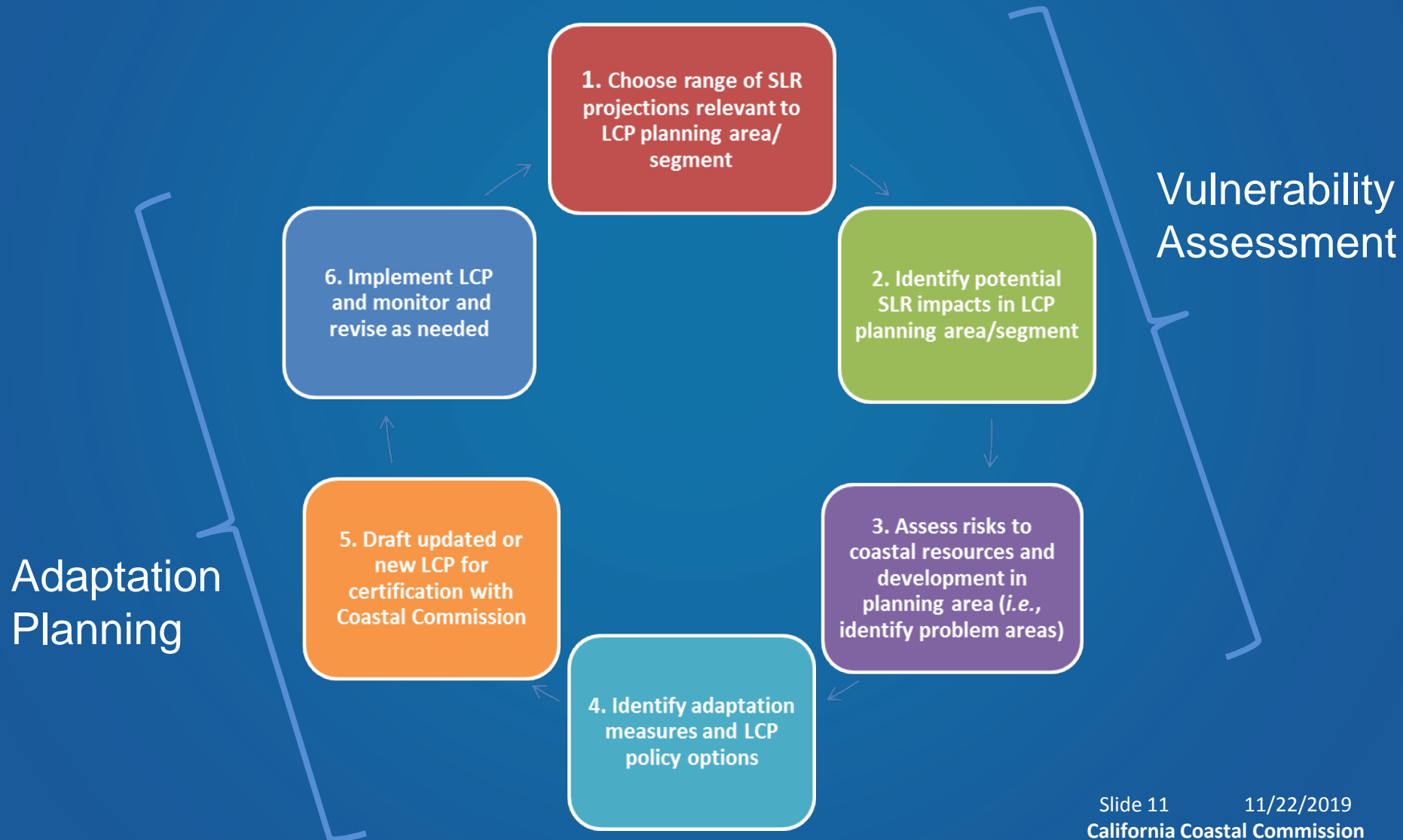
Extreme Risk Aversion Scenario (H++)

Use for projects with little to no adaptive capacity that would be irreversibly destroyed or significantly costly to repair, and/or would have considerable public health, public safety, or environmental impacts should that level of sea level rise occur





IMPLEMENTATION – PLANNING

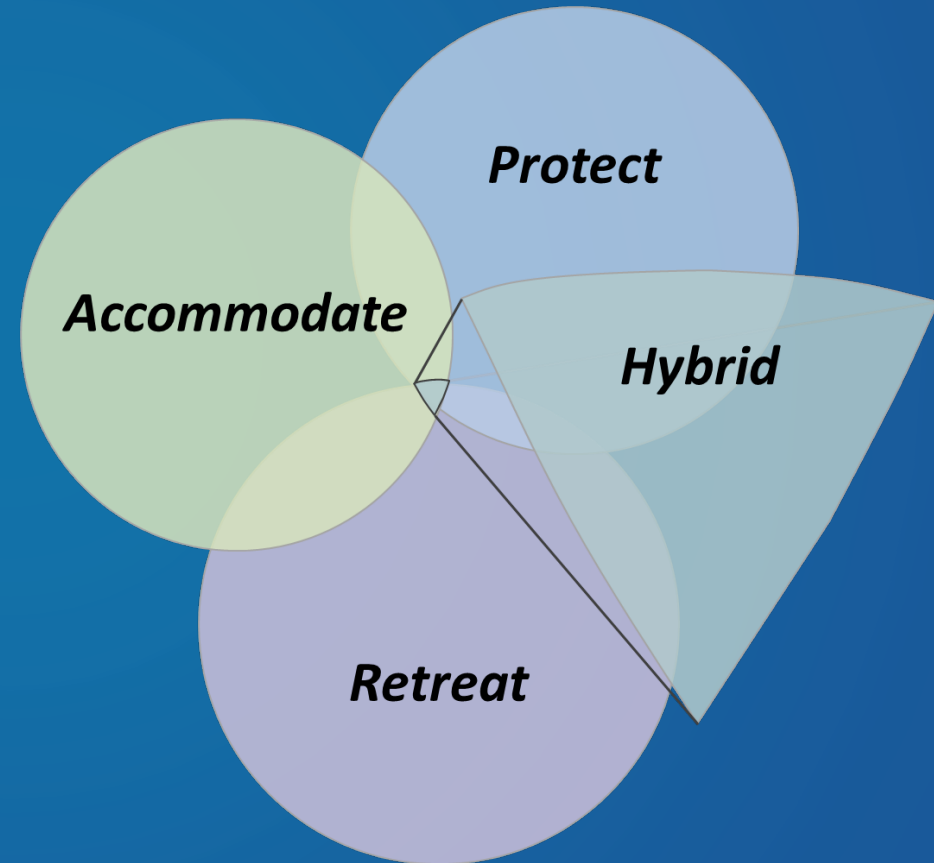




IMPLEMENTATION – PLANNING

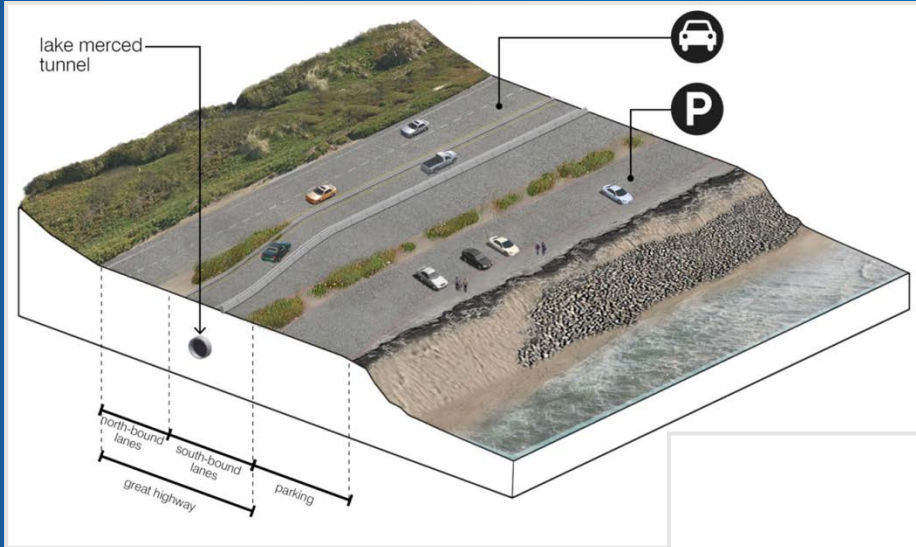
Best Practices

- Long-term vision
- Context matters
- Balance resource needs across space and time
- Phased approaches
- Consider wider region
- Coordination is key





INNOVATIVE APPROACHES



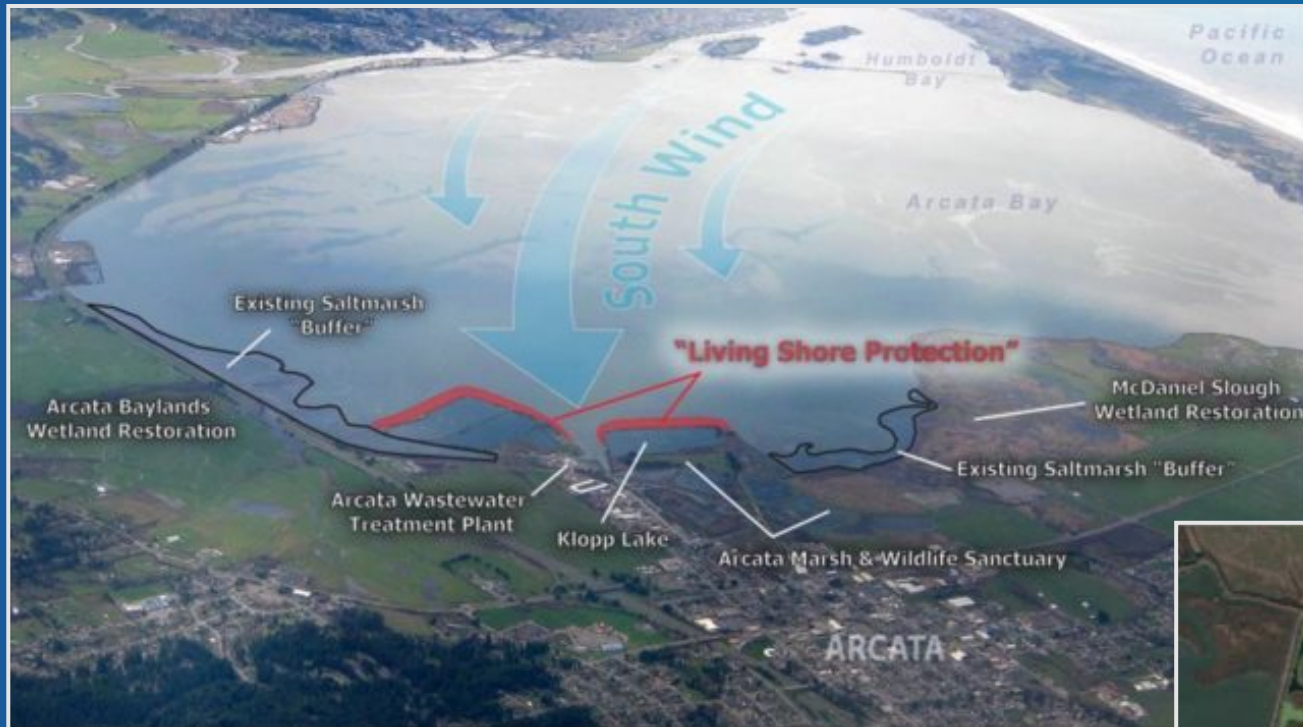
Ocean Beach, SF

Protection of wastewater assets, public access, habitat



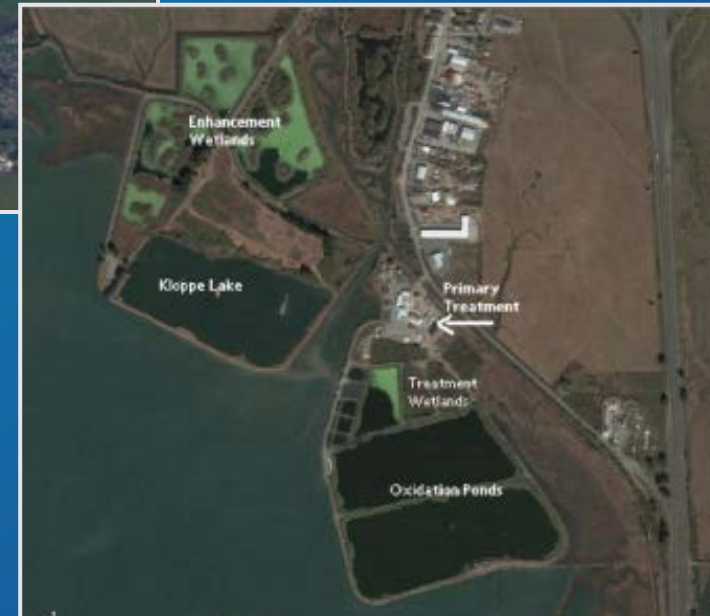


INNOVATIVE APPROACHES



Arcata WWTP

Phased protection, pull back, removal of WWTP; protect public access; city/Bay-wide wetland restoration





INNOVATIVE APPROACHES



Santa Cruz County LCP

Different approaches based on different geologic, development density conditions



ADDITIONAL GUIDANCE



CALIFORNIA COASTAL COMMISSION RESIDENTIAL ADAPTATION POLICY GUIDANCE

*Interpretive Guidelines for Addressing Sea
Level Rise in Local Coastal Programs*



Oceanside



King Salmon



Ventura



Solana Beach

Photo Credit: Mary Matella

MARCH 2018

REVISED

Critical Infrastructure Guidance



ADDITIONAL GUIDANCE

LCP Grant Program

~\$6 million

50 projects

37 local jurisdictions





THANK YOU!



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