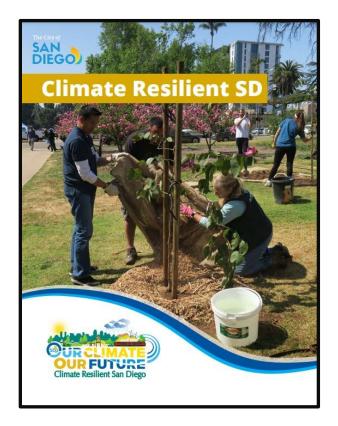# Coastal Resilience Master Plan
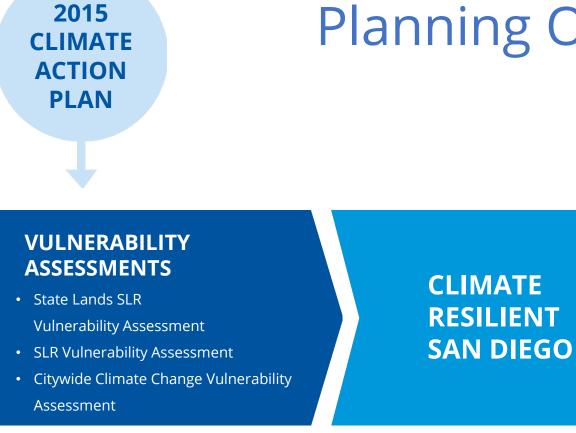
Community Workshops
June 2024

Climate Resilient SD

- City's comprehensive climate adaptation and resilience plan
- Further City's climate goals and meet legislative requirements
- Adopted December 2021
- Commitment to update every 5 years

2015 CLIMATE ACTION PLAN

Planning Overview

VULNERABILITY ASSESSMENTS

- State Lands SLR Vulnerability Assessment
- SLR Vulnerability Assessment
- Citywide Climate Change Vulnerability Assessment

CLIMATE RESILIENT SAN DIEGO

COASTAL RESILIENCE MASTER PLAN

Stakeholder and Community Engagement

Coastal Resilience Master Plan: purpose

- Mitigate risk from sea level rise

- Protect and enhance habitat

- Support access to the coast and recreational opportunities

Coastal Resilience Master Plan: project components

- Nature-based solution concept designs

- Pilot project designs

- Environmental Analysis

- Community outreach & engagement

  - Project webpage & newsletter
  - Pop-up engagement events
  - Online survey
  - Community workshops

- Internal working group

- Stakeholder Advisory Committee

Why nature-based solutions?

- Climate Resilient SD and the Coastal Resilience Master Plan prioritizes nature-based solutions (NbS) to for sea level rise protection and coastal resilience

- NbS provide **multiple benefits** to communities beyond risk reduction, such as water quality improvement, recreation opportunities, provision of habitat, and greenhouse gas emissions sequestration.

- NbS were the **preferred approached by community members.** When developing Climate Resilient SD, 89% of survey participants favored NbS for coastal protection.

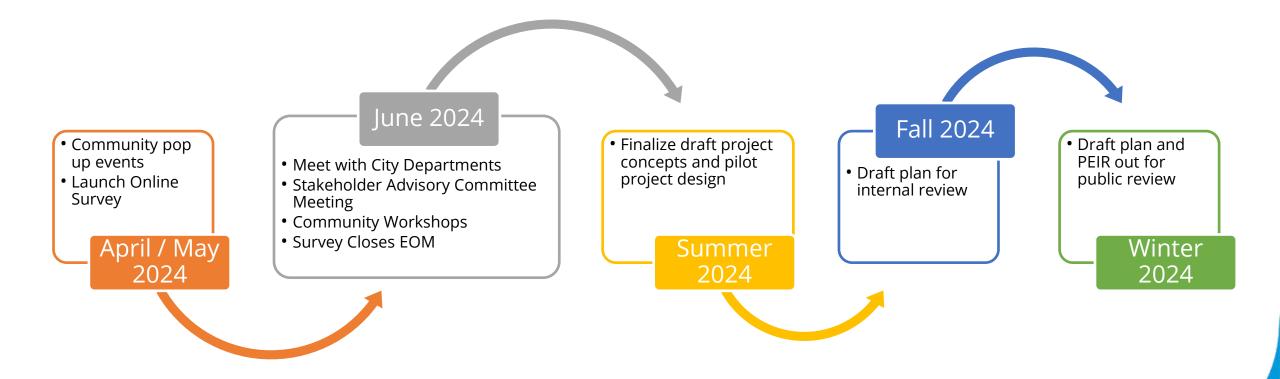- Align with State and Federal funding opportunities

Scope and Funding

- Phase 1: National Fish and Wildlife Foundation
  - Concept designs (6), pilot project 15% design (1), PEIR, community engagement

- Phase 2: State Coastal Conservancy
  - 15% design (3 sites), technical studies, community education & engagement, stakeholder & tribal engagement, EIR addendum, support for drafting of CRMP
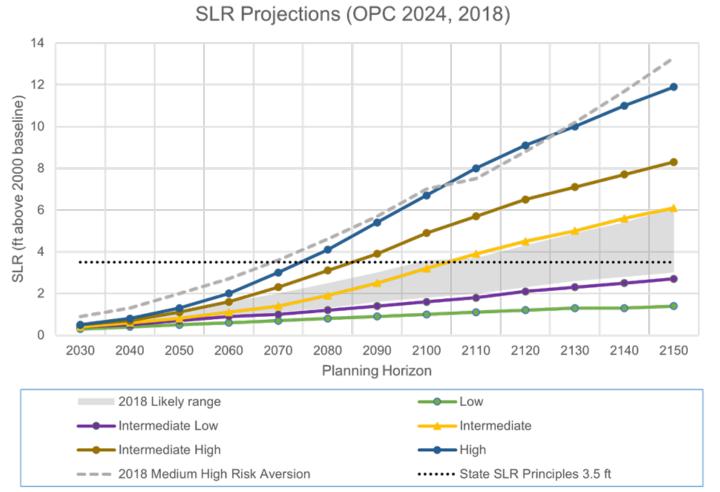
Sea Level Rise Overview
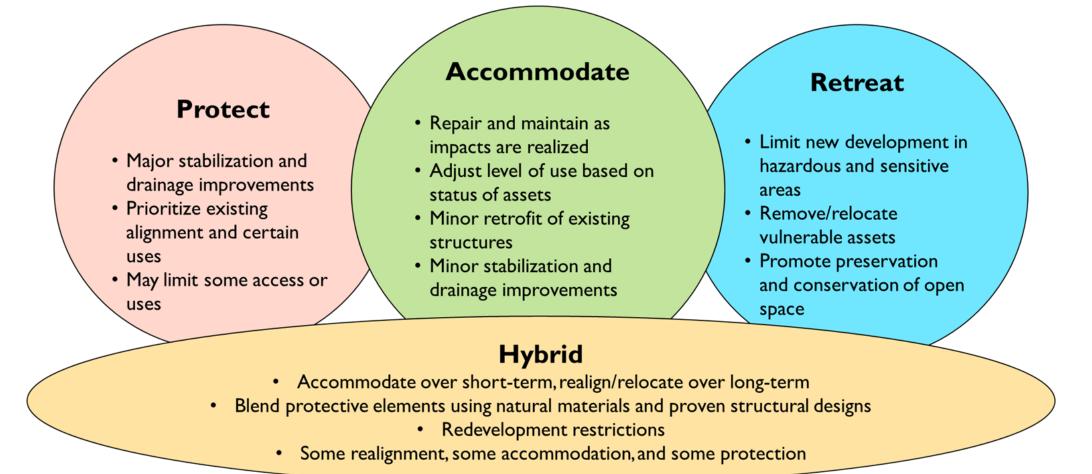

SLR Projections (OPC 2024, 2018)

Key Updates:

- **SLR until 2050 more certain than previous report**: statewide SLR by 2050 is 0.8 ft (intermediate scenario)
- **SLR range from 2050-2100 expands** due to higher uncertainty with emissions scenarios and physical processes
- **2100 and beyond range expands further** due to uncertainties with physical processes
- **H++ scenario (2017) removed –** much higher than new updates suggest

Sea level rise projections for the San Diego tide gauge (modified from OPC 2024, 2018).
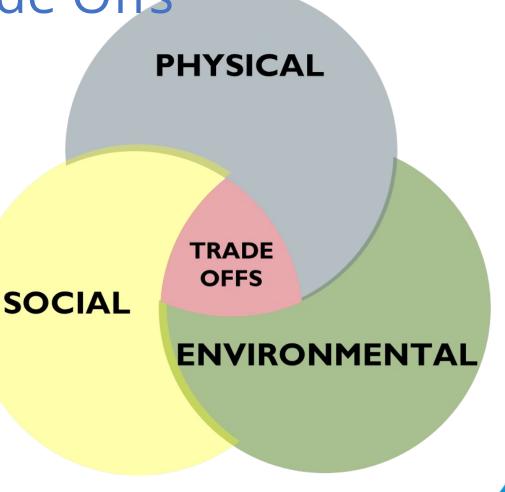
Adaptation Alternatives & Trade Offs

There are trade offs associated with every adaptation alternative.

•Strategies with more physical protection often also provide some social benefits and preserved use but may compromise environmental aspects.

•Strategies that prioritize environmental features may not provide precise physical protection but can offer natural aesthetics and can represent community values.

Site Selection

11 → 6 sites

Prioritization factors:

- City ownership

- Disadvantaged communities

- Multi-Habitat Planning Area

- SLR vulnerability

- Site feasibility

Ocean Beach – Dog Beach

Recreation Use	★★★★★
Emergency Access Constraints	★★★
Parking Demand	★★★★★
Available Space for NbS	★★★★
Vulnerability	★★★★★
Existing Habitat	★★★★★

★low—high★★★★★

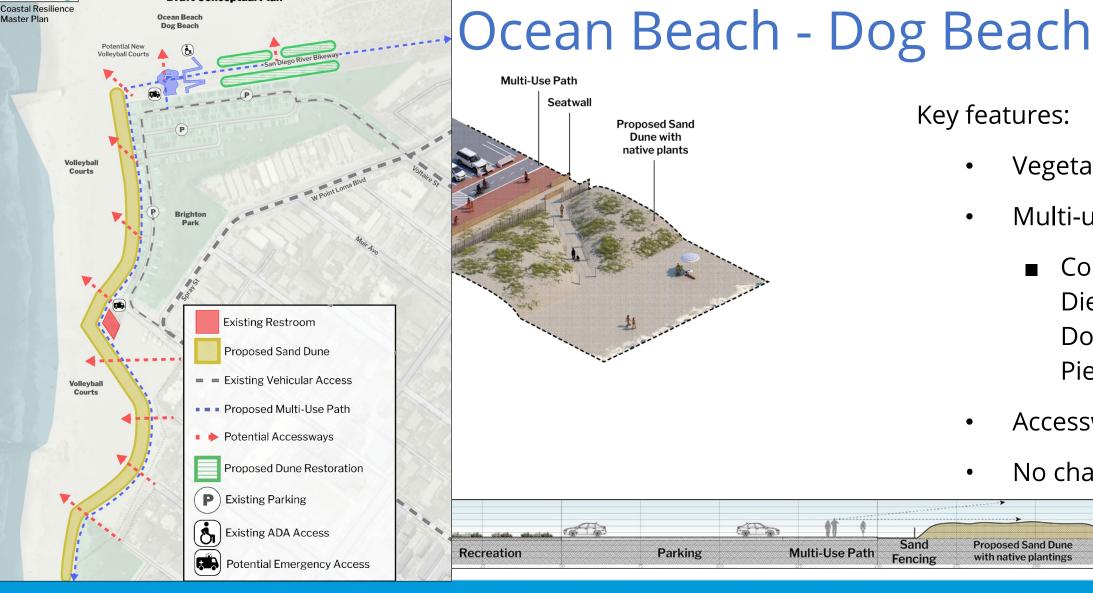3.3 ft SLR scenario with 100-yr storm

Ocean Beach - Dog Beach

Menu of Potential Options

- Vegetated dune
  - Removal of K rail
  - Integration with San Diego River Trail
- Parking and recreation area realignment
- Restroom realignment
- Repair, rehabilitation, or modification of groin and/or jetty

Ocean Beach - Dog Beach

Key features:

- Vegetated dune

- Multi-use path

  - Connect San Diego River Trail, Dog Beach, and Pier

- Accessways

- No change to parking

Ocean Beach - Beachfront

Recreation Use	★★★★★
Emergency Access Constraints	★★★★★
Parking Demand	★★★★★
Available Space for NbS	★★
Vulnerability	★★★★★
Existing Habitat	★★★

★low—high★★★★★

3.3 ft SLR scenario with 100-yr storm

sandiego.gov

Ocean Beach - Beachfront

Menu of Potential Options

- Vegetated dune
  - Connection between Dog Beach and OB Pier
- Parking and recreation area realignment
- Repair, rehabilitation, or modification of groin and/or jetty
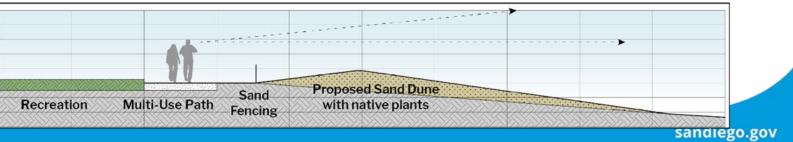- Seawall modification

Ocean Beach - Beachfront

Key features:

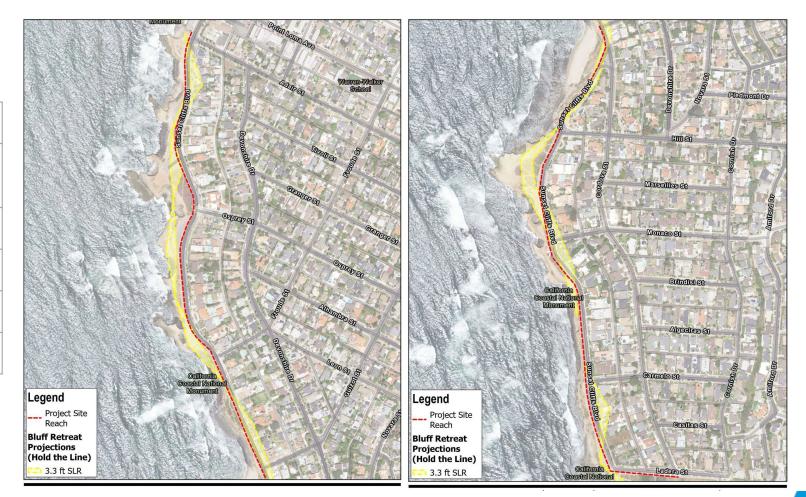- Vegetated dune

- Multi-use path
  - Connect San Diego River Trail, Dog Beach, and Pier

- Accessways

- No change to parking

Sunset Cliffs

Recreation Use	★★★★
Emergency Access Constraints	★★★★★
Parking Demand	★★★★
Available Space for NbS	★★
Vulnerability	★★★★
Existing Habitat	★★

★low—high★★★★★
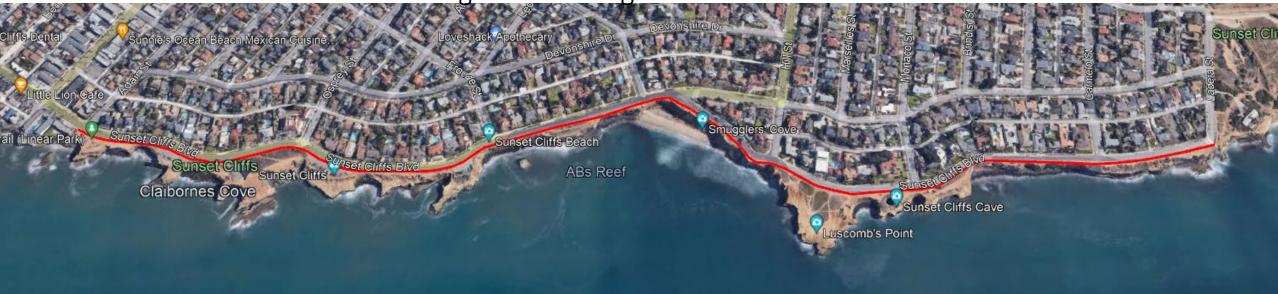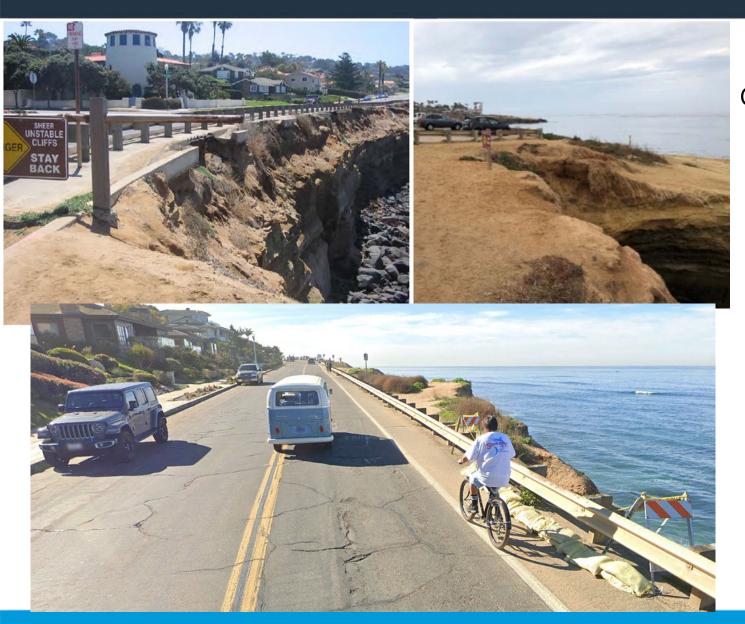

3.3 ft SLR scenario erosion band

Sunset Cliffs

Menu of Potential Options

- Roadway modification, diet, and/or realignment

- Trail formalization and enhancement

- Parking lot retrofit and layout optimization

- Stormwater and drainage improvements

- Bluff stabilization

- Vegetation management

Considerations:

- Safety improvements

- Desire for no impact on emergency response or total parking

- Shift perspective from reactive to proactive

- Drainage improvements

- Invasive removal and native plant installation

- Access and recreation enhancement

Sunset Cliffs

Sunset Cliffs Natural Park Master Plan -2005

FIGURE 24 - Existing Conditions:
Excess parking pavement, compacted soils and lack of accessible pedestrian access.

FIGURE 25 - Computer Simulation of Potential Improvements:
Parking redesigned, coastal trail created and park revegetated.

35'-6"

1'-6" Curb   Fencing

Sidewalk   One Way Southbound   10' Pedestrianway

20'-0"   10'-0"   4'-0"

- - - Existing Vehicular Access
· · · Proposed Pedestrian Access
Ⓟ Existing Parking
- - - Proposed One Way Street Southbound
● Begin/End One-Way

Looking Forward

- First step of many

- Additional technical studies

- Additional engineering

- Continued community & stakeholder engagement
- Implementation triggers

Thank you!

This project is made possible through grants from the National Fish and Wildlife Foundation and California State Coastal Conservancy.

To learn more about the Coastal Resilience Master Plan: