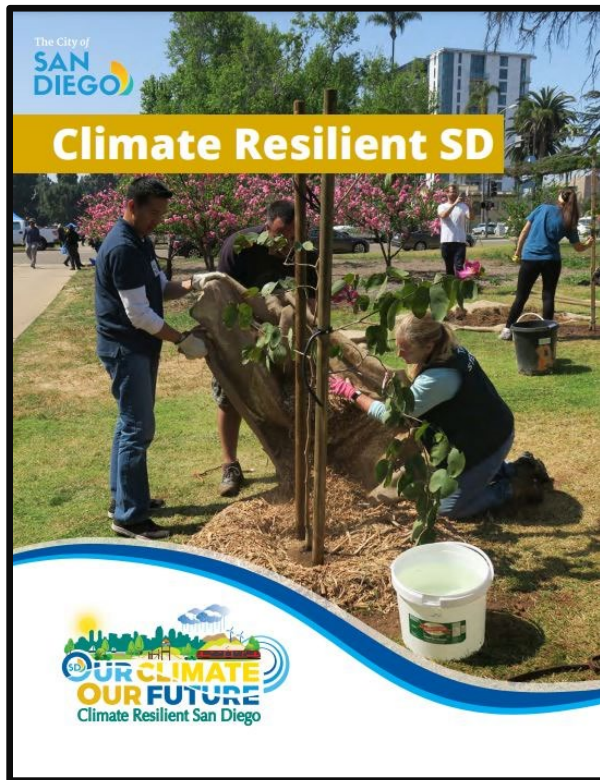


# Coastal Resilience Master Plan

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

## Planning Overview

2015  
CLIMATE  
ACTION  
PLAN



### 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

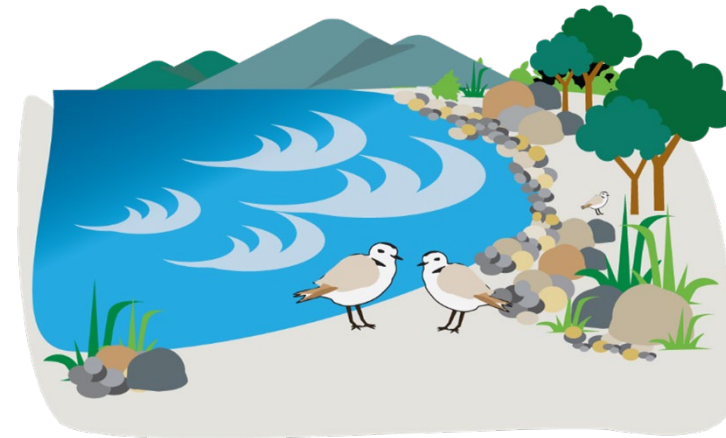
# Coastal Resilience Master Plan: purpose

- 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
- Technical advisory group



## 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 approach by community members**. When developing Climate Resilient SD, 89% of survey participants favored NbS for coastal protection.
- Align with State and Federal funding opportunities

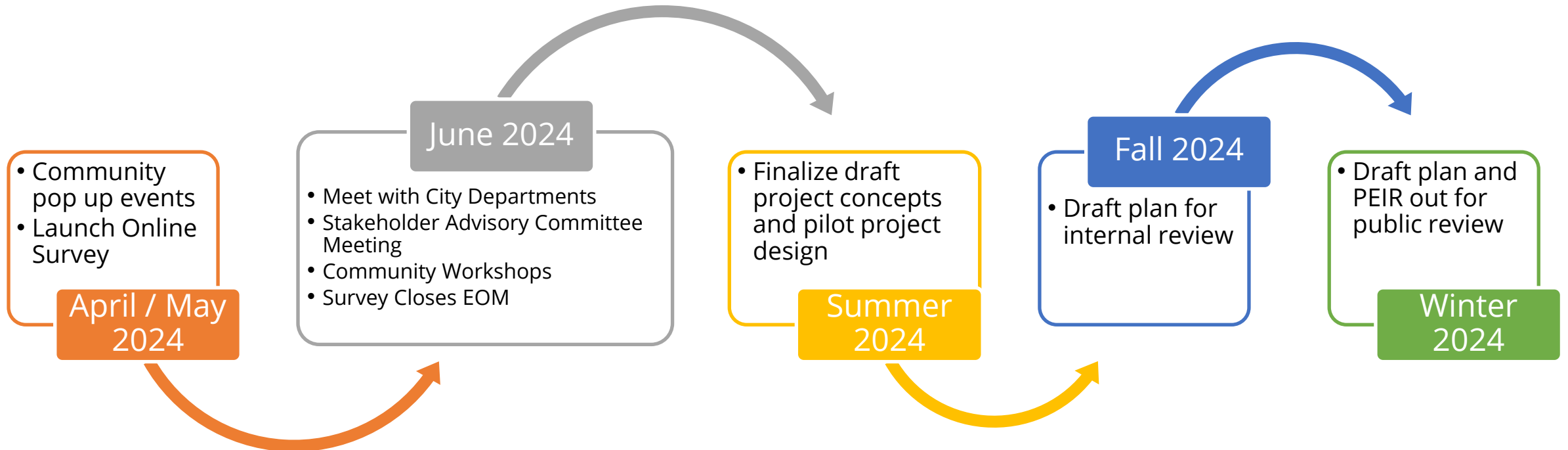


# Scope and Funding

- 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



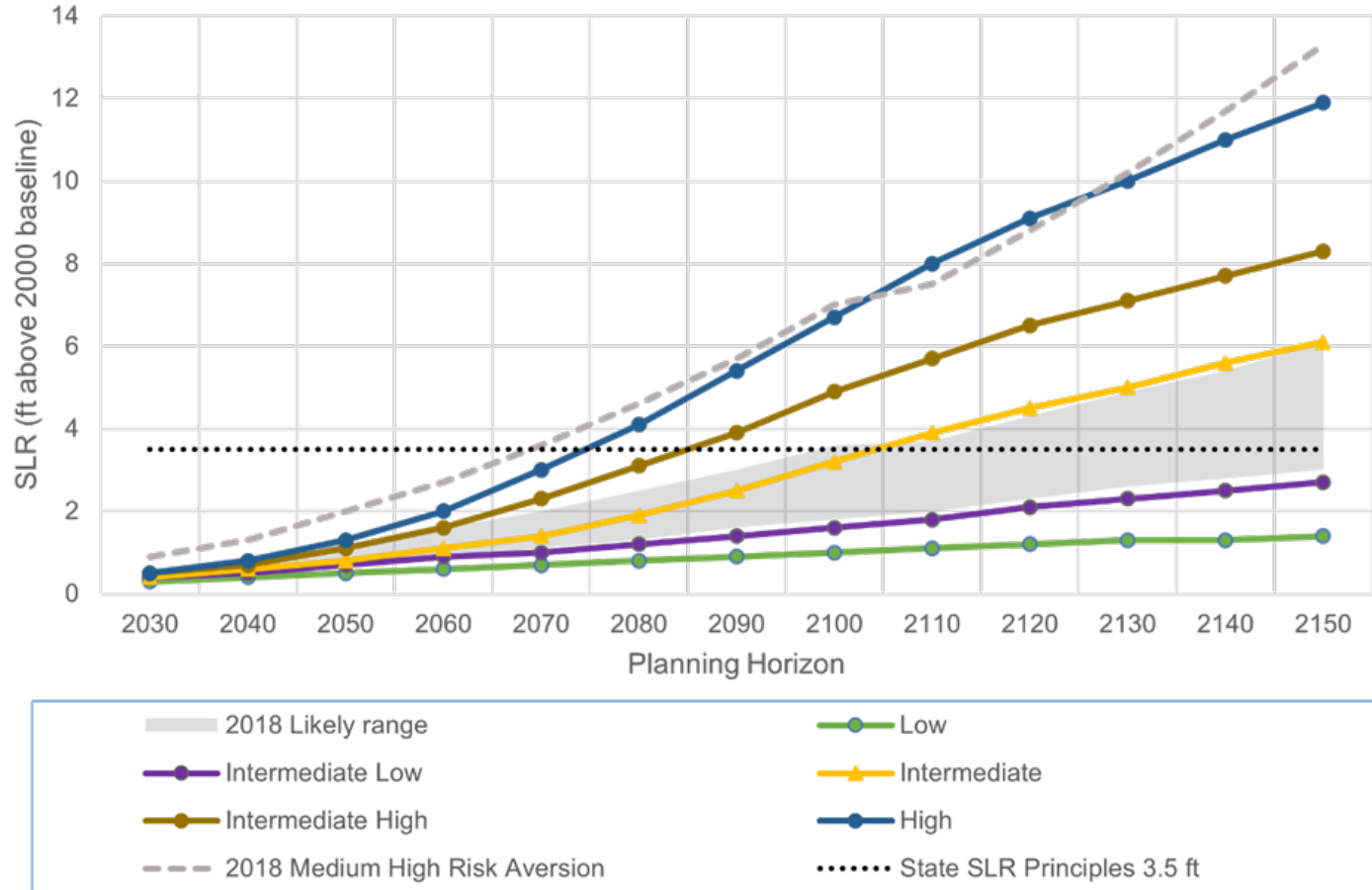
# Coastal Resilience Master Plan: draft schedule





# Sea Level Rise Overview

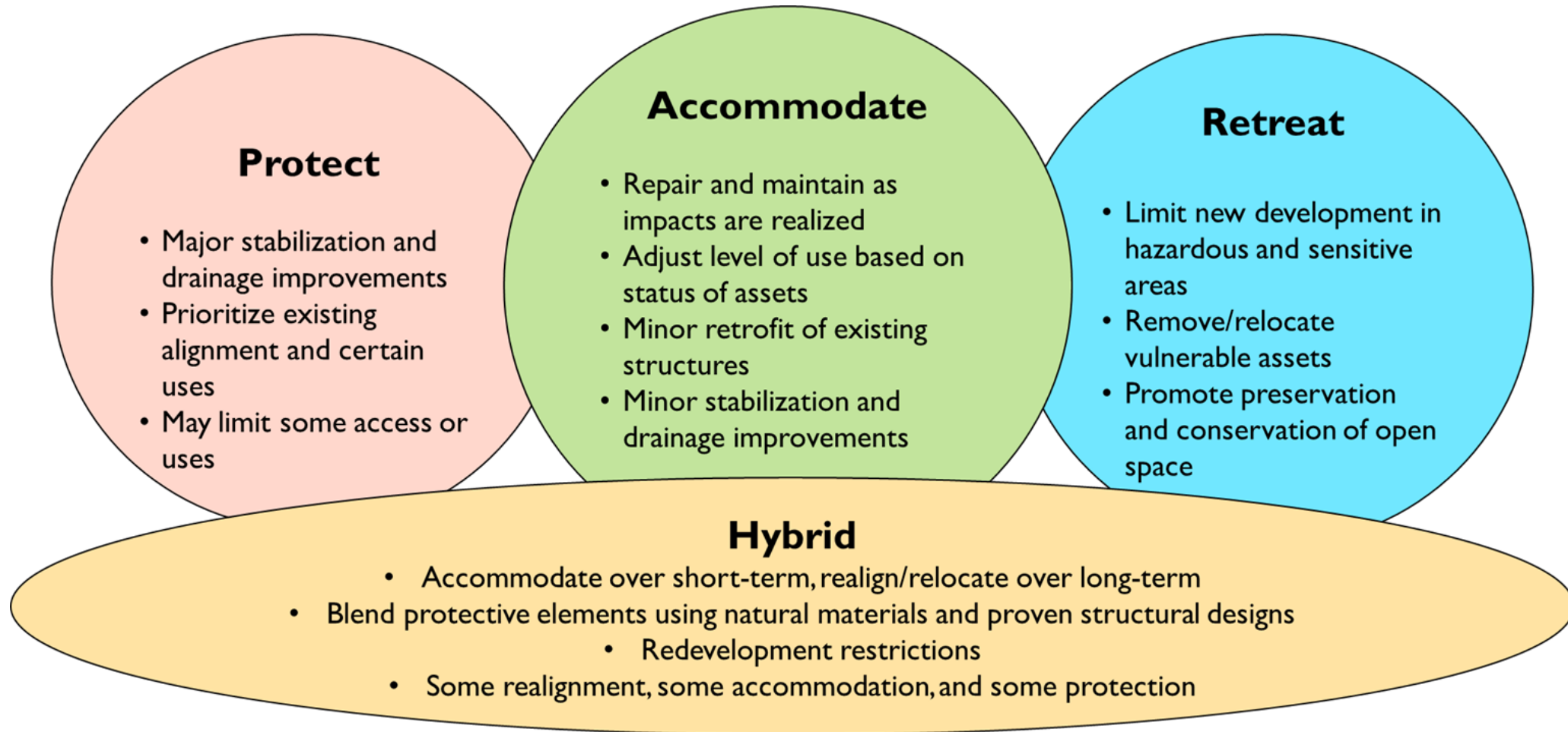
SLR Projections (OPC 2024, 2018)



## 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

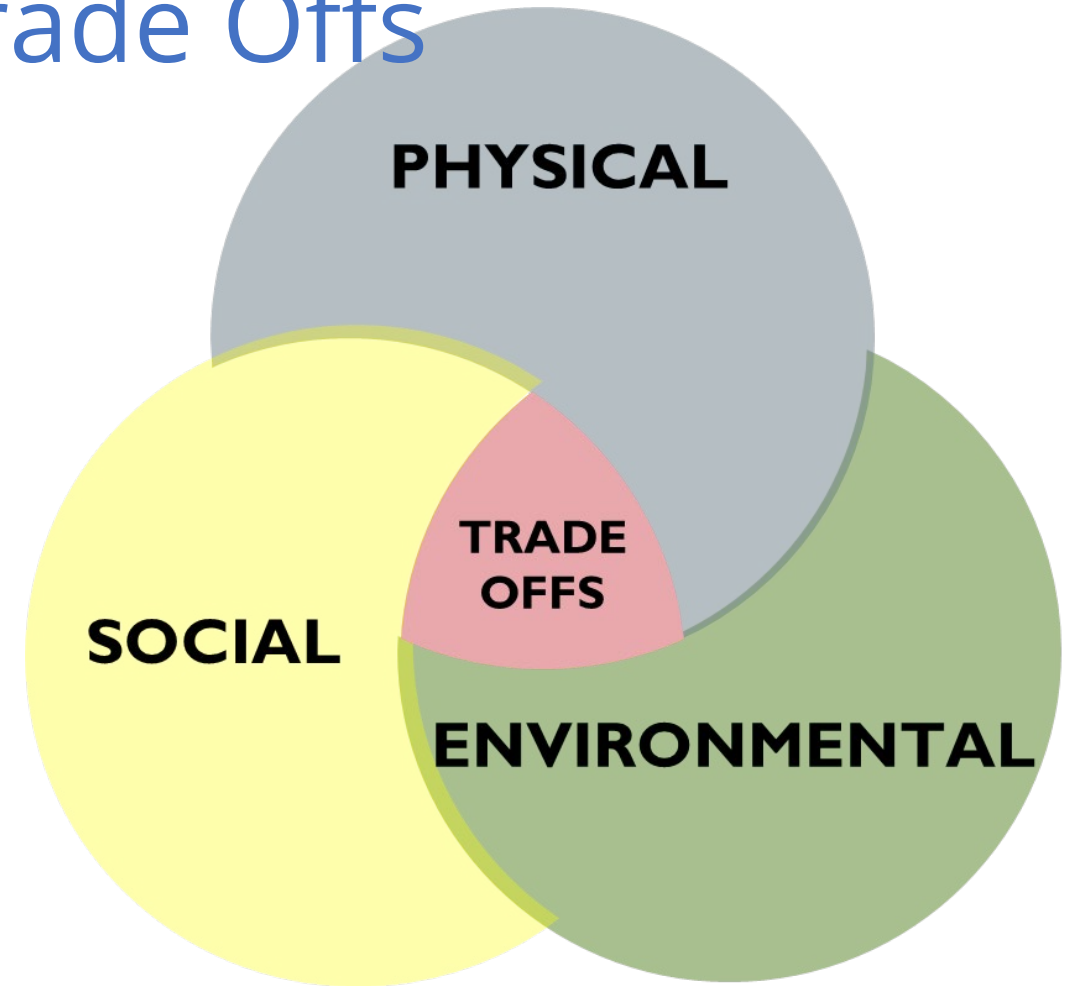
Sea level rise projections for the San Diego tide gauge (modified from OPC 2024, 2018).



# 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



# Pacific Beach - Tourmaline

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

# Pacific Beach - Tourmaline

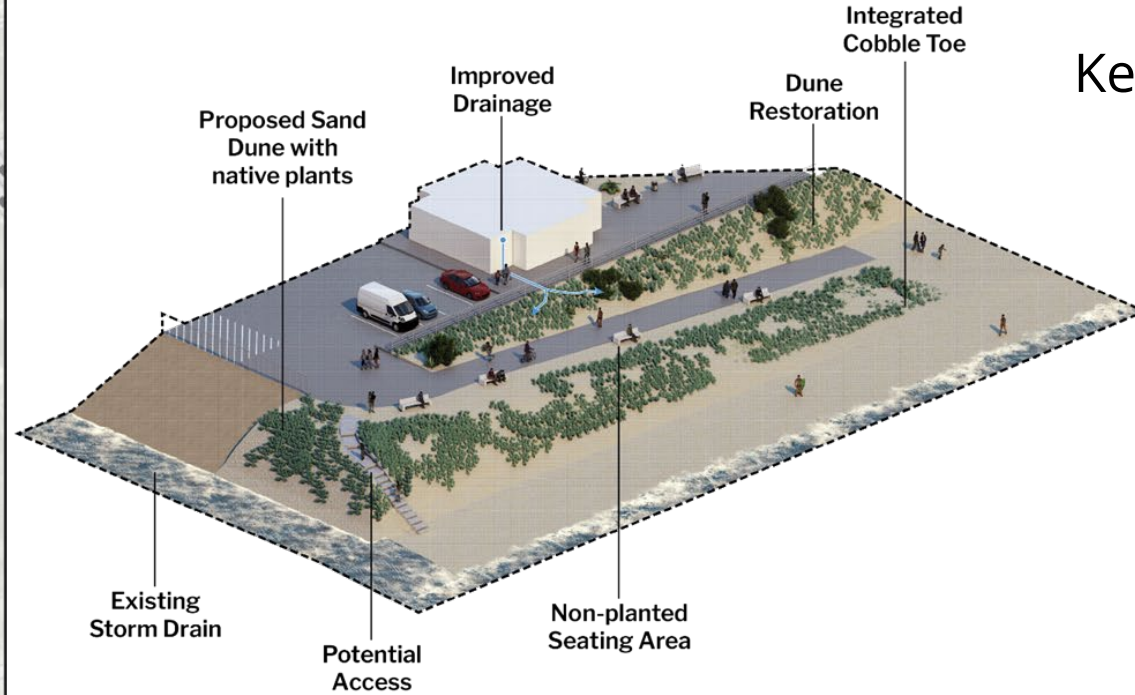
## Menu of Potential Options

- Vegetated dune integrated with existing revetment and cobble
- Stormwater and drainage improvements
- Enhance access and site amenities
- Parking lot modification with pedestrian features



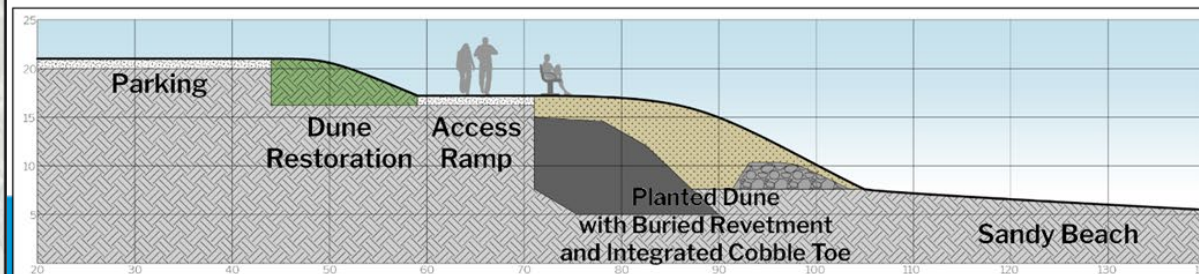


# Pacific Beach - Tourmaline



## Key features:

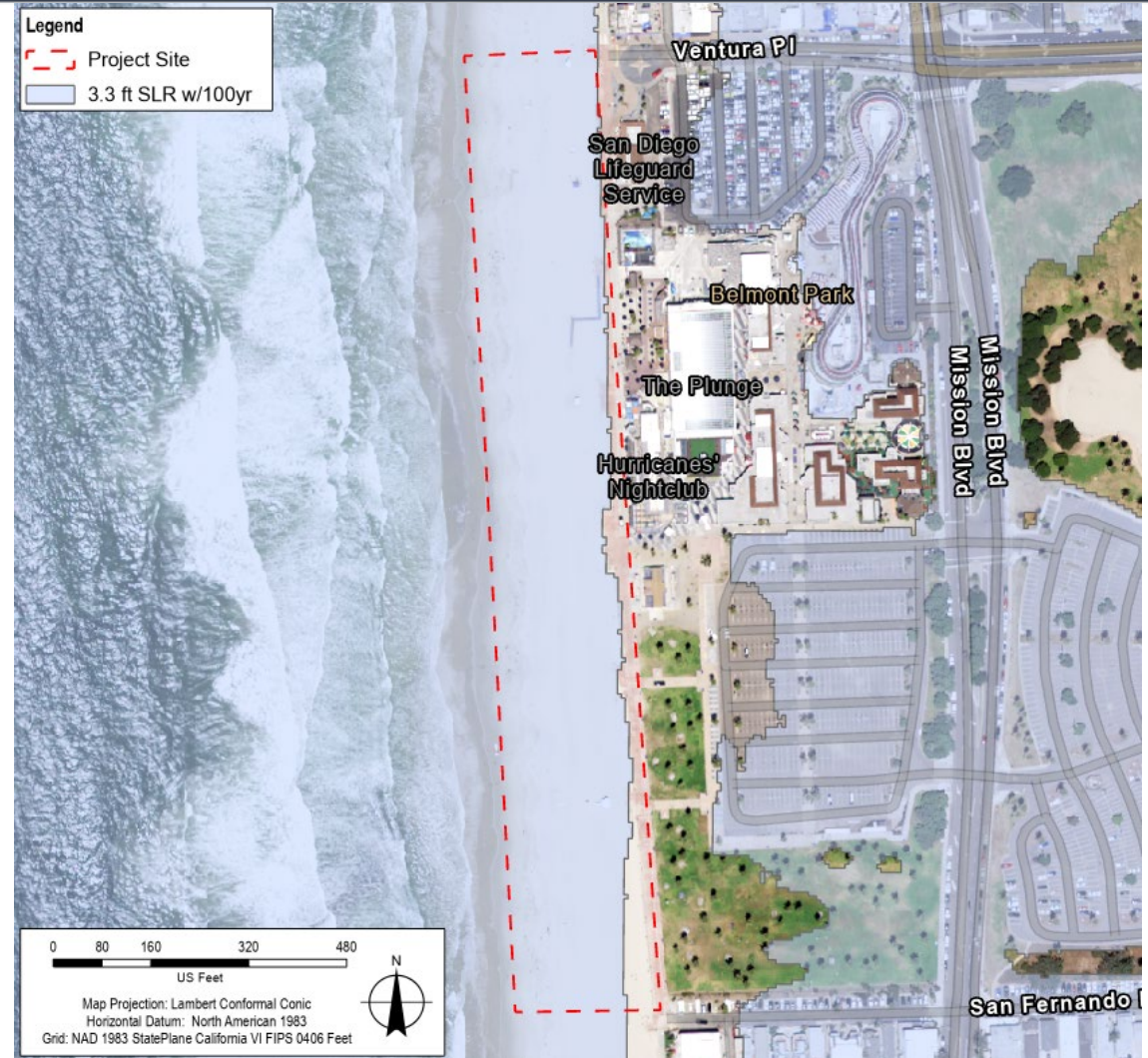
- Vegetated dune leveraging existing material
- Enhance existing seating, access, and aesthetics
- Retain ramp



# Mission 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



# Mission Beach

## Menu of Potential Options

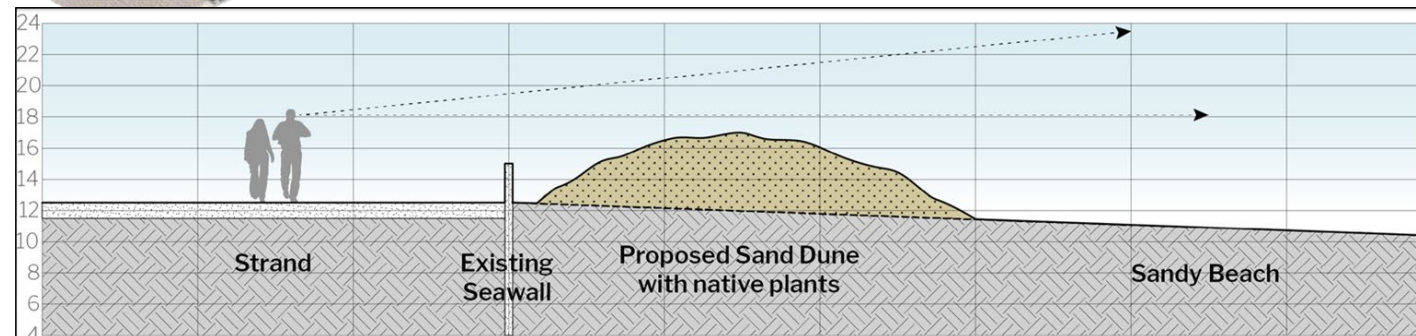
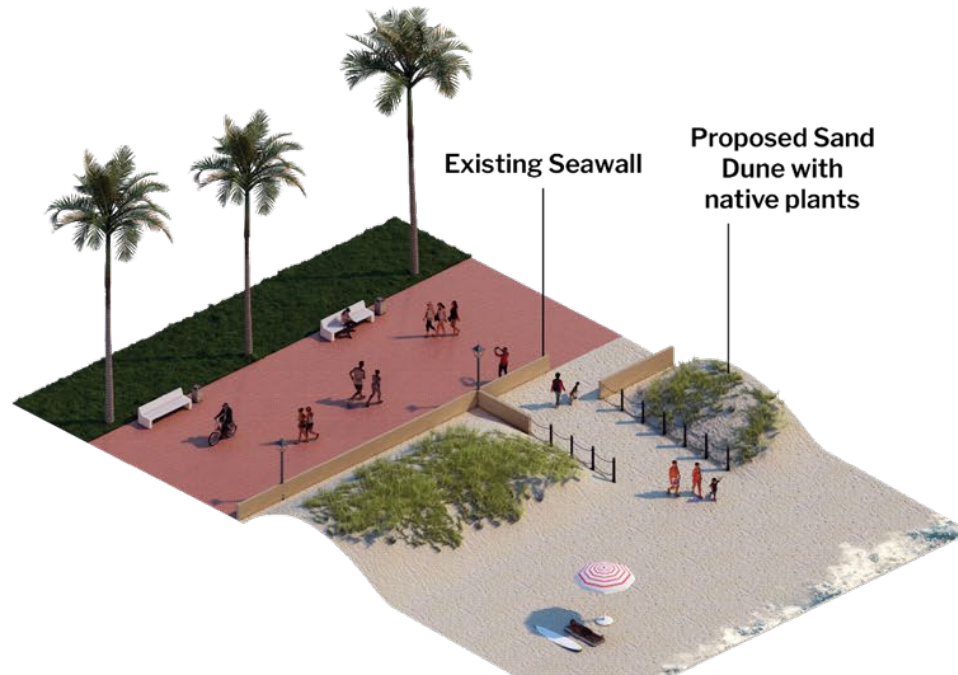
- Vegetated dune
- Seawall modification/realignment
  - Flood proof accessways
  - Perched beach



## Mission Beach

Key features:

- Vegetated dune
- Accessways
- Consideration for accessway flood proofing
- Maintain strand

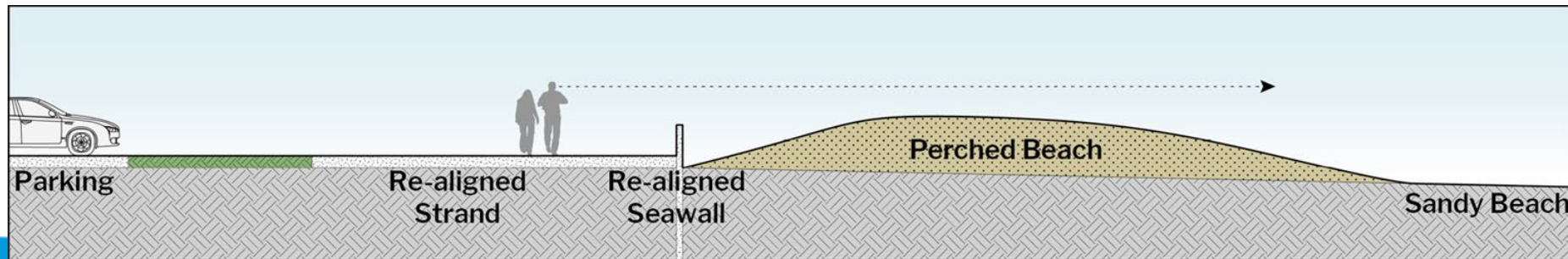
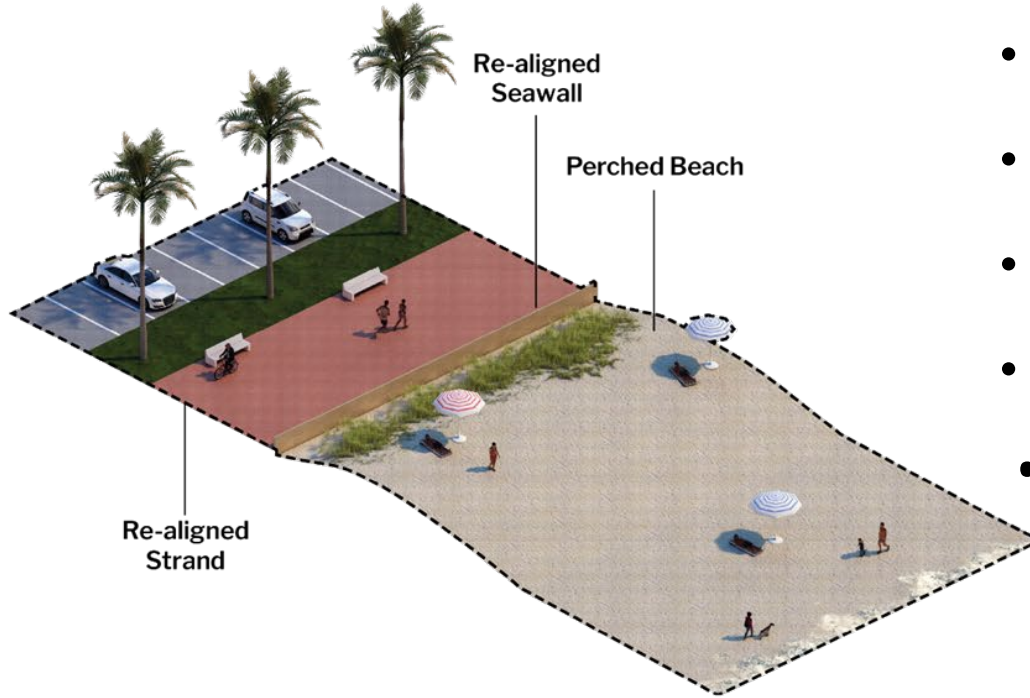


Draft Conceptual Plan

## Mission Beach

Key features:

- Realigned seawall and strand
- Perched beach
- Vegetated dune
- Accessways
- Consideration for accessway flood proofing



- Existing Restroom
- Existing Lifeguard Tower
- Proposed Sand Dune
- Existing Vehicular Access
- Proposed Pedestrian Access
- Proposed Pedestrian Access
- P Existing Parking
- ♿ Proposed ADA Access
- 🚒 Emergency Access

# La Jolla Shores

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

★low—high★★★★★



# La Jolla Shores

## Menu of Potential Options

- Parking lot and recreational area realignment
- Seatwall and berm features along park perimeter
- Vegetated dune
- Seawall modification/realignment
  - Flood proof accessways



Photo credit: Alex Lawson

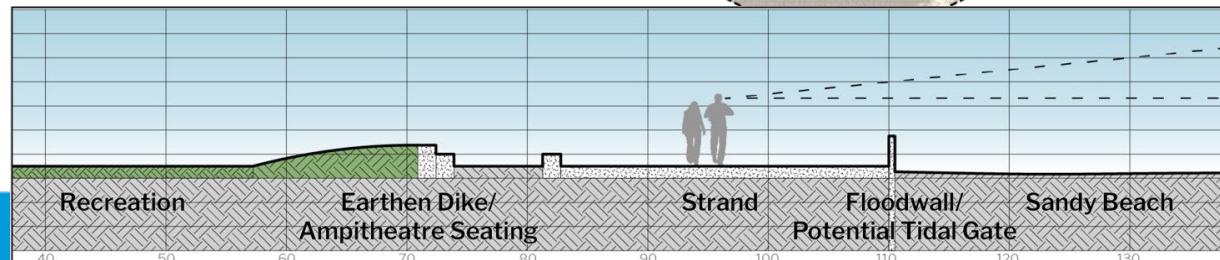


## La Jolla Shores



Key features:

- Seatwall
- Earthen dike
- Seating and viewing amenities
- Retain beach space
- Consideration for accessway flood proofing



# 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:

