



# Informational Item: Big Break Regional Shoreline Climate Adaptation Plan



# Climate Adaptation Study

Scope

Goals

Project Timeline

Opportunities & Constraints



# Scope



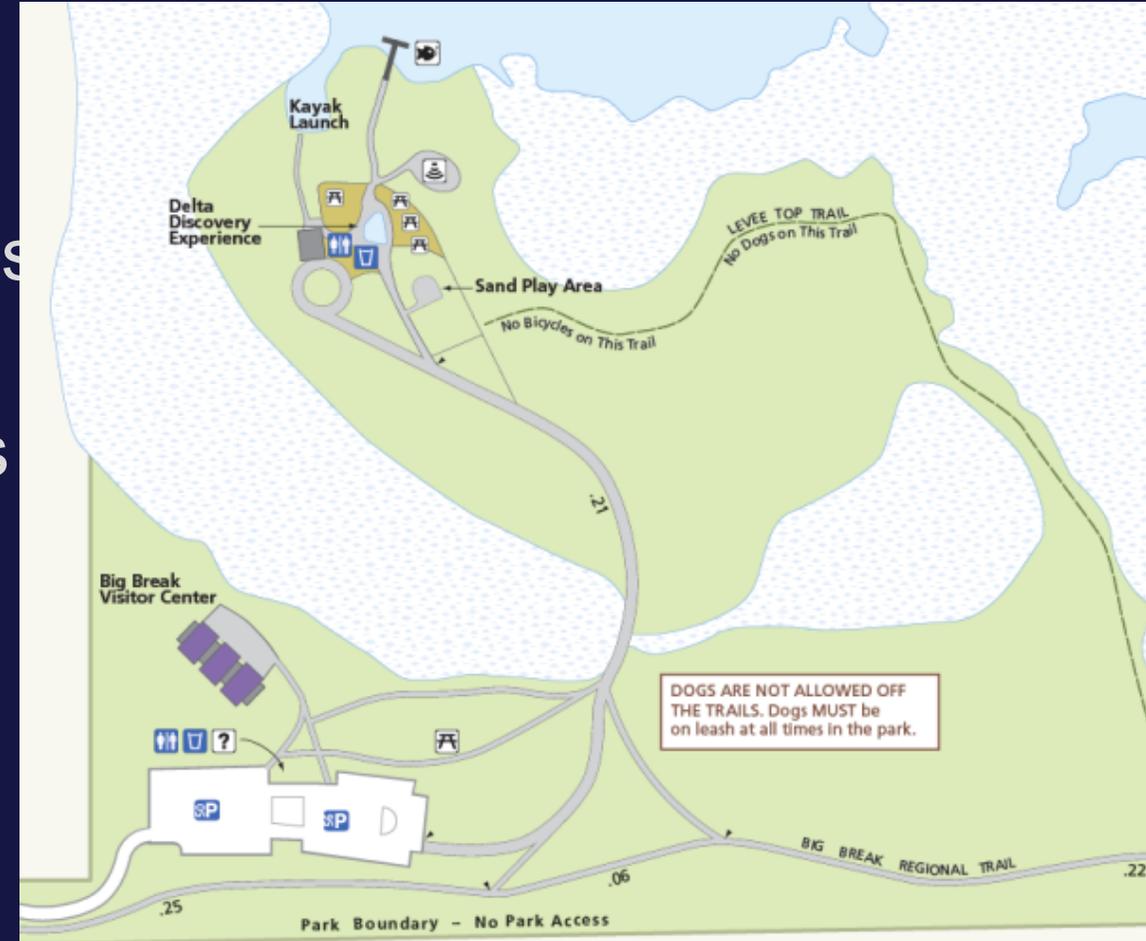
## Assess Vulnerability

- Infrastructure: trails, public access buildings
- Habitat: vegetation communities

## Develop Preliminary Plans

## Public Outreach

## CEQA



# Study Purpose

## Identify Measures To:

- Protect, adapt and enhance visitor serving facilities
- Preserve, adapt, and enhance habitat
- Improve water quality and pond circulation



Alkaline meadow habitat occurs today along a tributary to Frisk Creek in southeastern Contra Costa.  
(Photo by Abigail Fateman)



# Project Goals

**SLR Adaptation.** Evaluate the site's vulnerability to sea level rise and climate change.

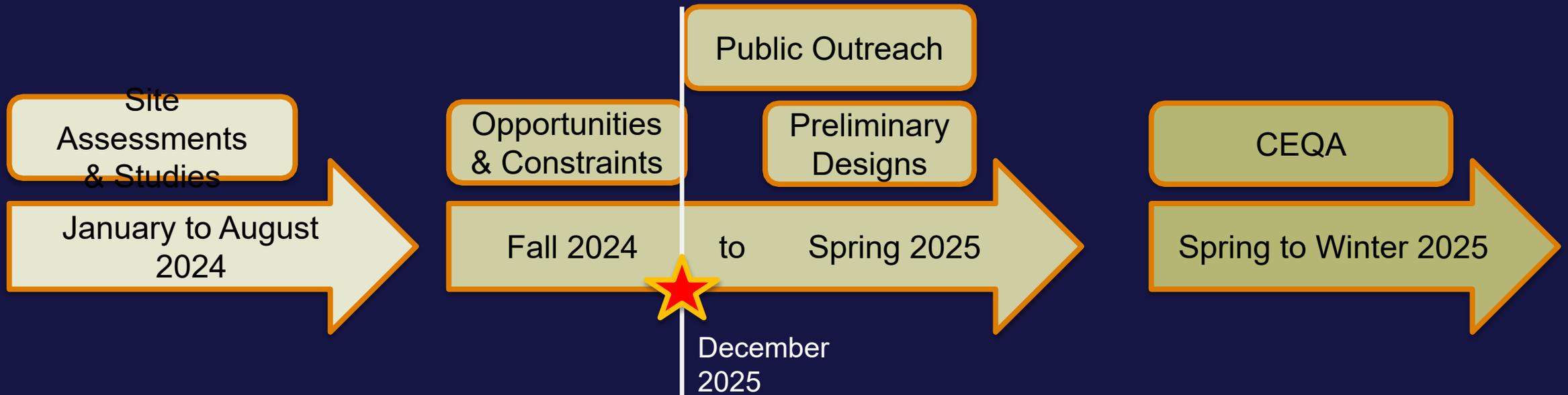
**Habitat, Public Access, Interpretation.**

Develop plan to adapt and expand habitats and existing access and infrastructure to meet projected SLR and expanded user needs.

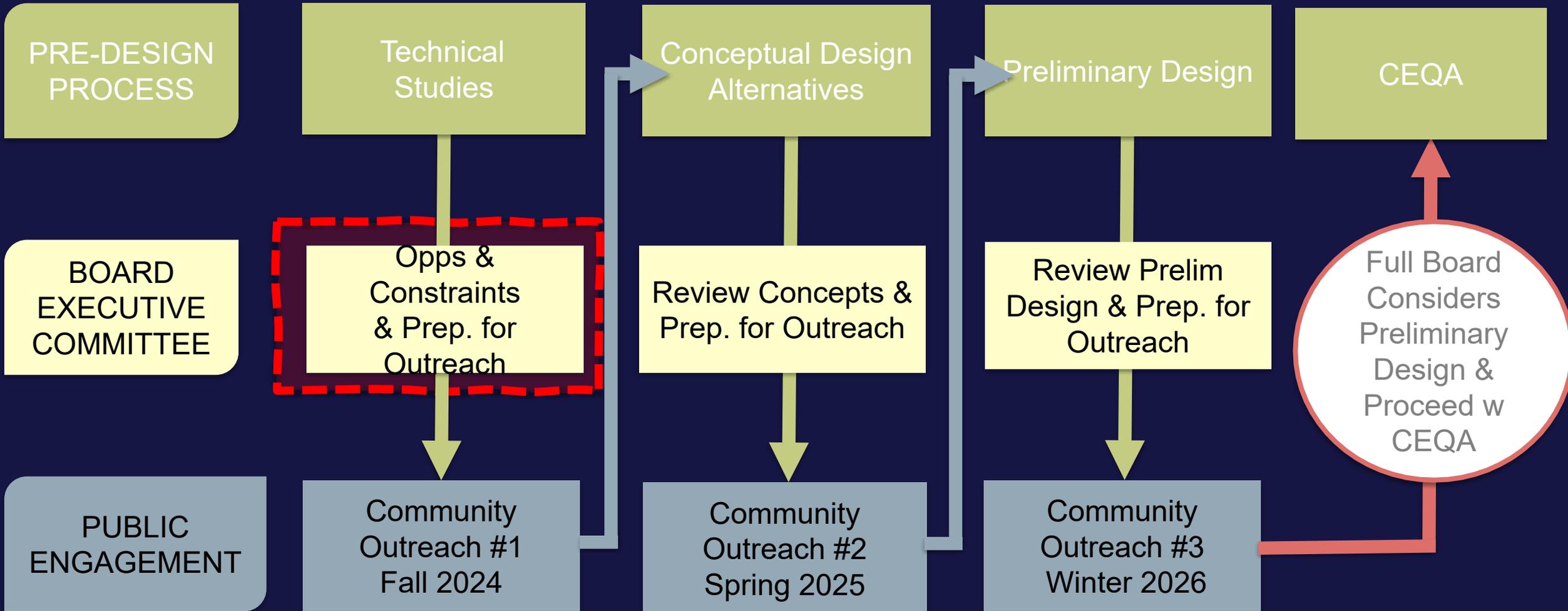
**Actionable.** Ensure park improvements are within operational and budgetary constraints of the Park District.



# Project Schedule



# Project Review Process





# Sea Level Rise: Criteria

Time scales: near-term, mid-century, long-term

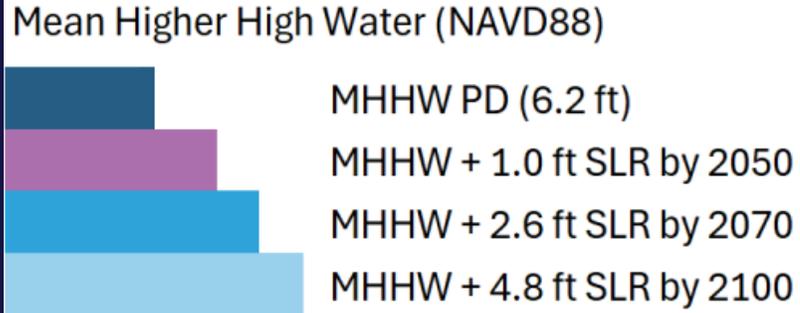
## Trails and Public Access:

- High Tide (MHHW) change over time

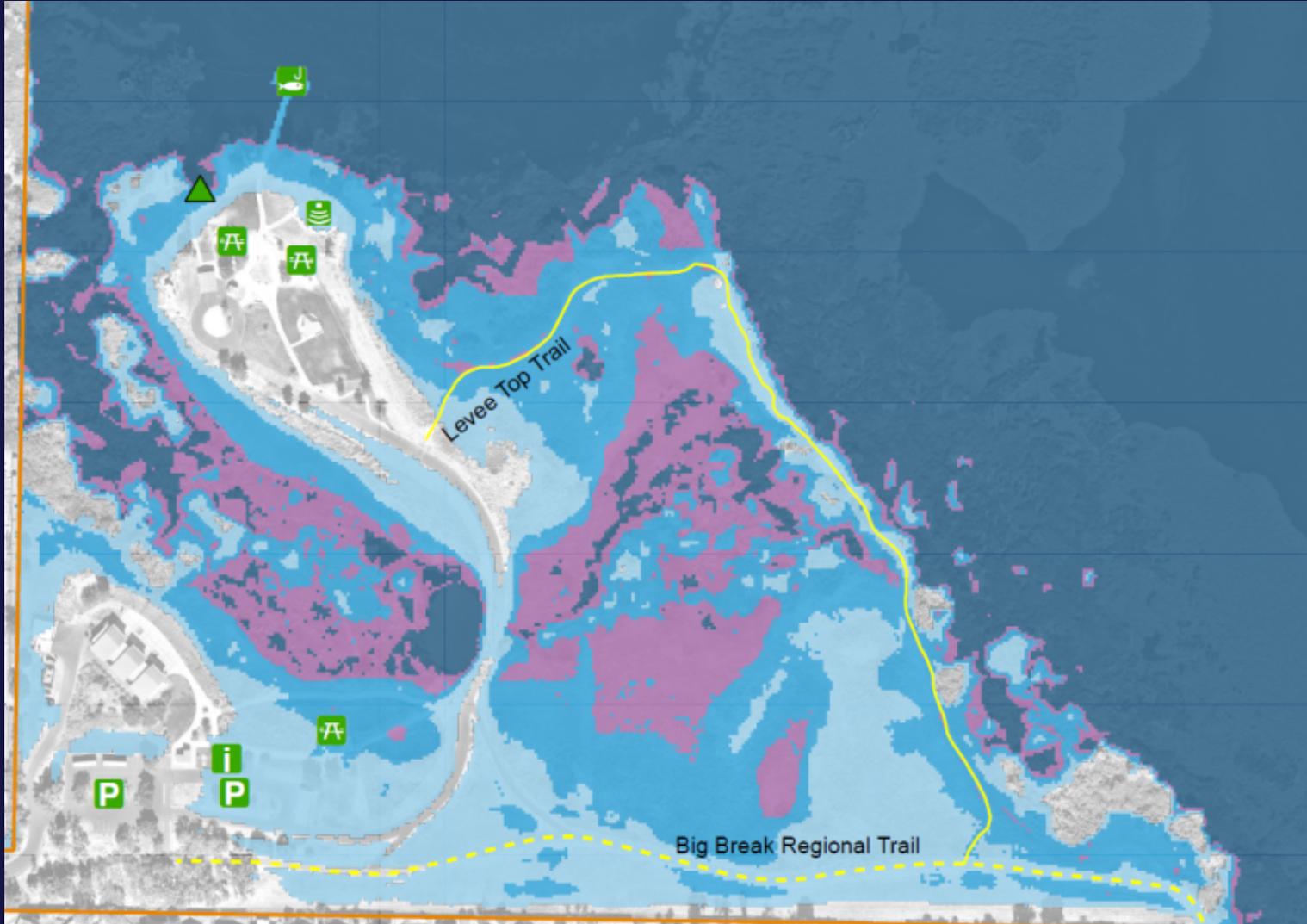
## Infrastructure:

- Visitor Center, Bathrooms, Kayak Storage
- Base Flood Elevation (BFE) change over time

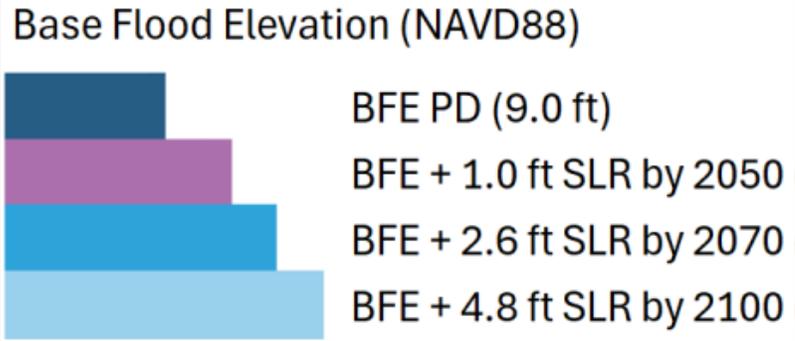
# Sea Level Rise: Trails & Public Access



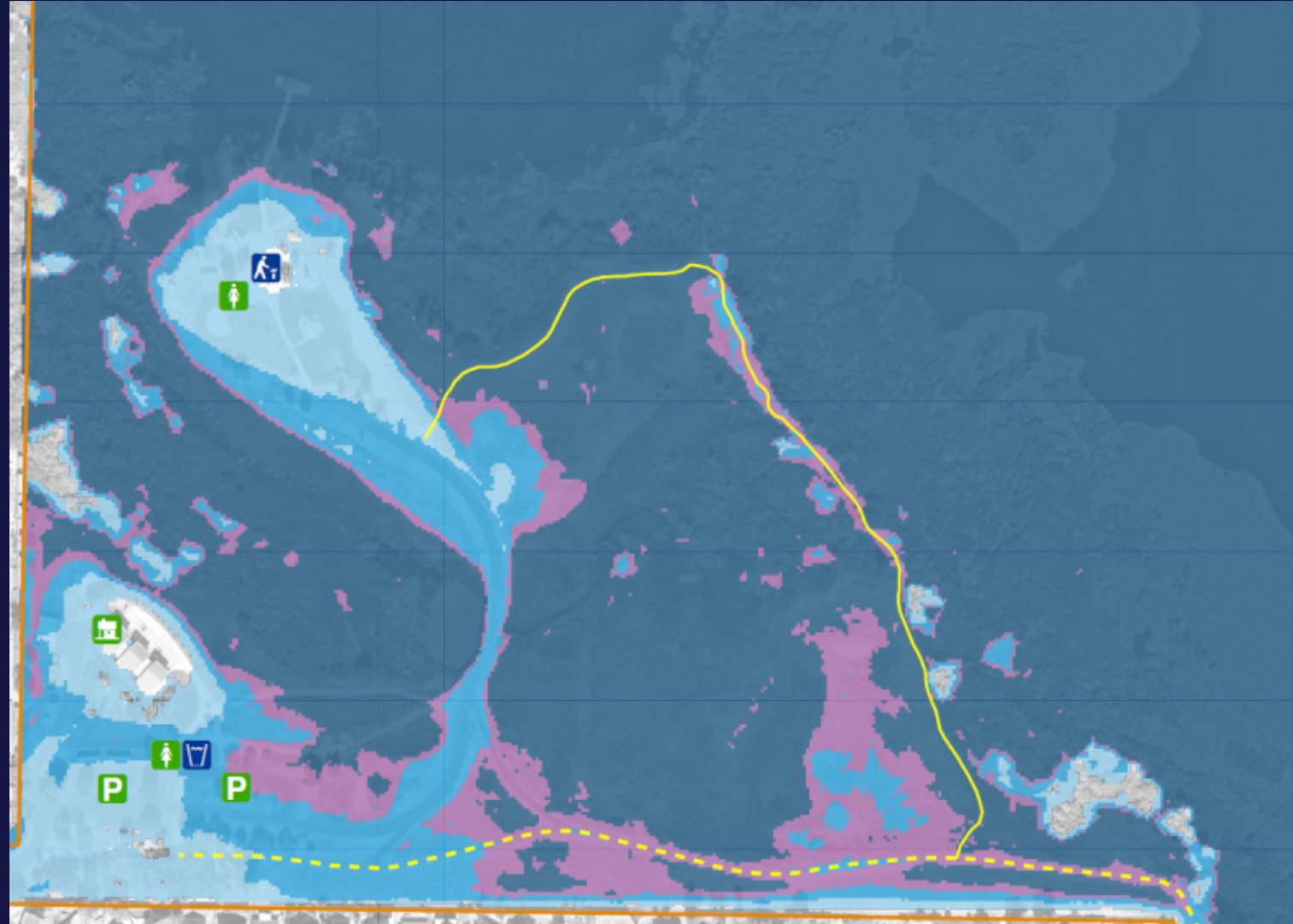
- Legend
- Picnic Area
  - Parking
  - Kayak Launch
  - Information Panel
  - Fishing/Observation Pier
  - Bridge
  - Amphitheatre
  - Park Boundary



# Sea Level Rise: Infrastructure



- Legend
- Big Break Visitor Center
  - Restrooms
  - Parking
  - Bridge
  - Drinking Fountain
  - Delta Discovery Experience
  - Park Boundary



# Opportunities: Ecological

Increase native vegetation cover

- Update veg management practices
- Translocate native rhizomes
- Wet season burn piles
- Seasonal flash grazing

Invasive species removal



# Opportunities: Wildlife

- 1 Enhance Pond Habitat for
  - Northwestern pond turtle
  - Giant garter snake
  
- 2 Special-Status Pollinators
  - Monarch butterfly
  - Crotch’s bumble bee
  - Western bumble bee
  
- 3 Rare Dune Expansion



# Opportunities: Shade

Increase native tree cover and shade

- Provide climate resilience from heat island effects
- Improve park user comfort on hot days

Amphitheater shade structure



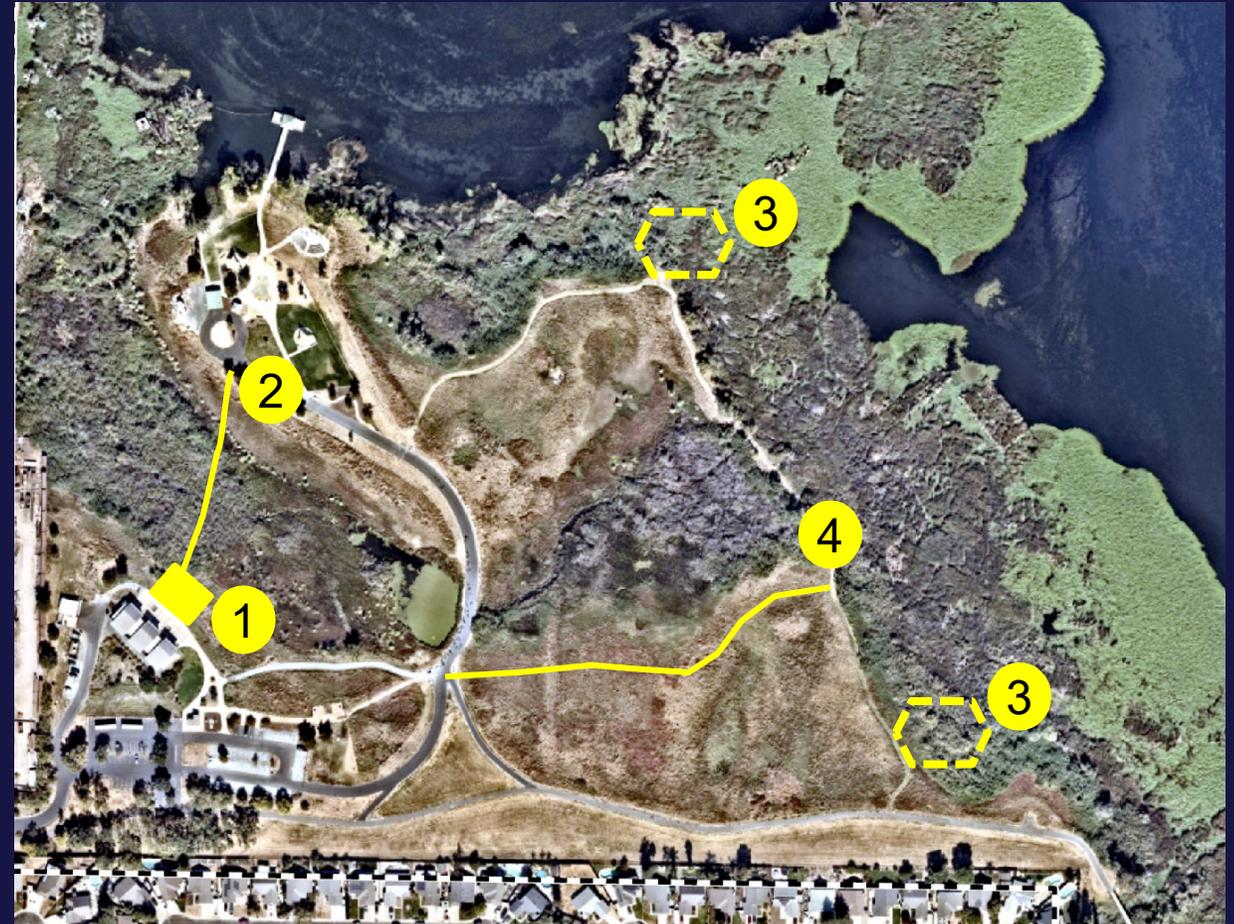
# Opportunities: Existing Trails & Access

- 1 Elevate levee top trail for SLR
- 2 Make levee top trail ADA accessible
- 3 Add overlook tower/viewing deck (Location tbd)
- 4 Add short boardwalks for animal crossing & tidal flow



# Opportunities: New Trails & Access

- 1 Add overlook deck at visitor center
- 2 Elevated pedestrian walkway or boardwalk from visitor center to Delta Discovery Experience
- 3 Interpretive marsh boardwalk (Location TBD)
- 4 Interior connector trail



# Opportunities: Water Access

Improve open water access to kayakers and potential gravel beach





**Thank You.**