



Santa Cruz Branch Line Corridor – Planning for Climate Resilience

June 2026

Agenda

1. Introduction
2. Climate Resilience Study Process
3. Climate Resilience & Hazards Overview
4. Site Specific Hazards & Concepts
5. Relocation Concepts
6. Evaluation Criteria
7. Schedule & Next Steps



Introduction



Background

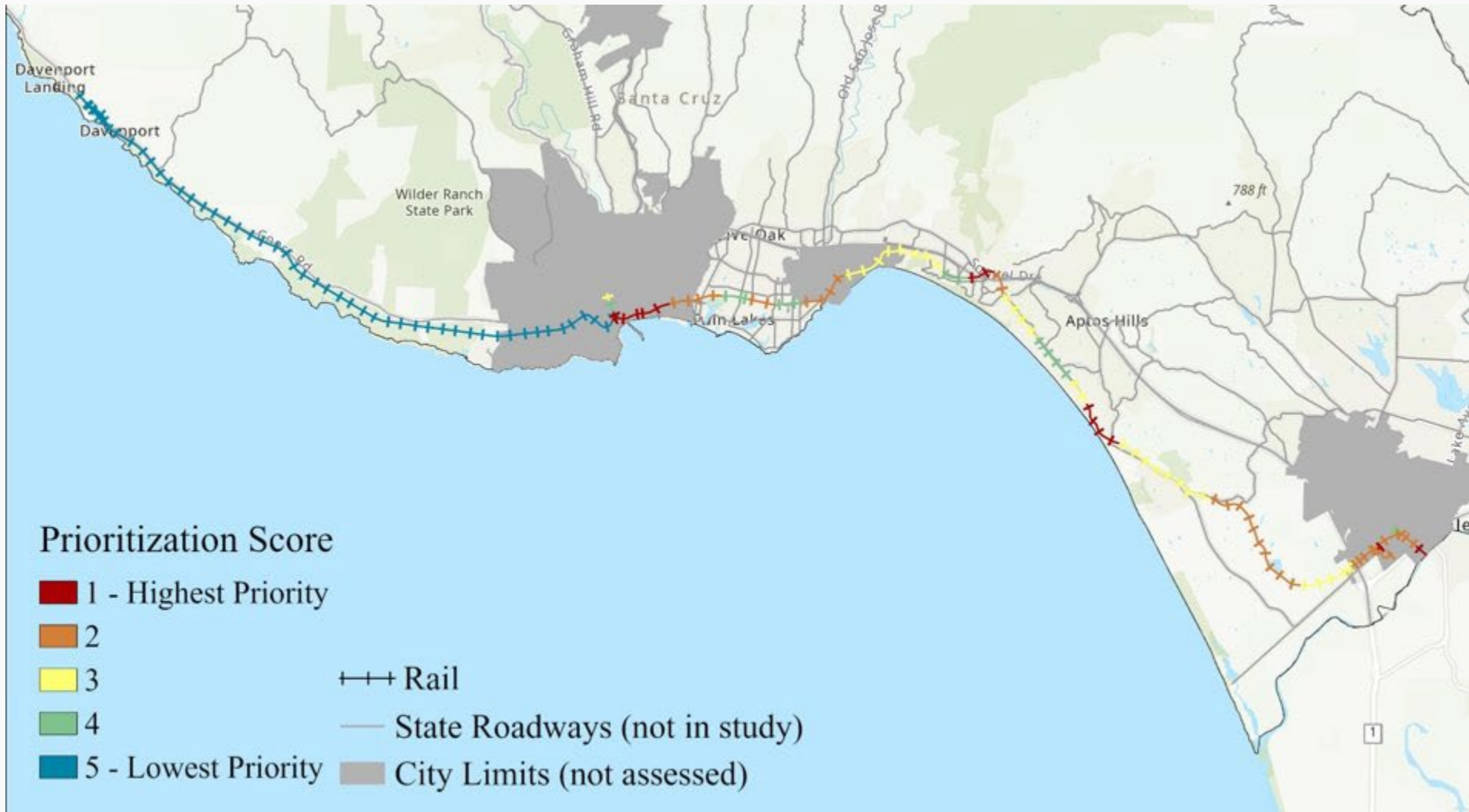
- Purchased the SCBRL in 2012 to preserve the corridor for transportation purposes.
- Planning for short- and long-term uses of the corridor.
 - Coastal Rail Trail (2013–ongoing)
 - Ultimate Trail Alignment
 - Interim Trail Alignment
 - Zero Emission Passenger Rail and Trail Project (2025)



Climate Resilience Study Process



Climate Adaptation Vulnerability Assessment





Capitola Bluffs

**La Selva/
Manresa Bluffs**

**Harkins Slough
Rail Crossing**

**Pajaro River
Rail Bridge**



Study Location



Santa Cruz Branch Rail Line Corridor



Railroad



County Line



Two Future Projects



Interim Trail

Construction
around 2030

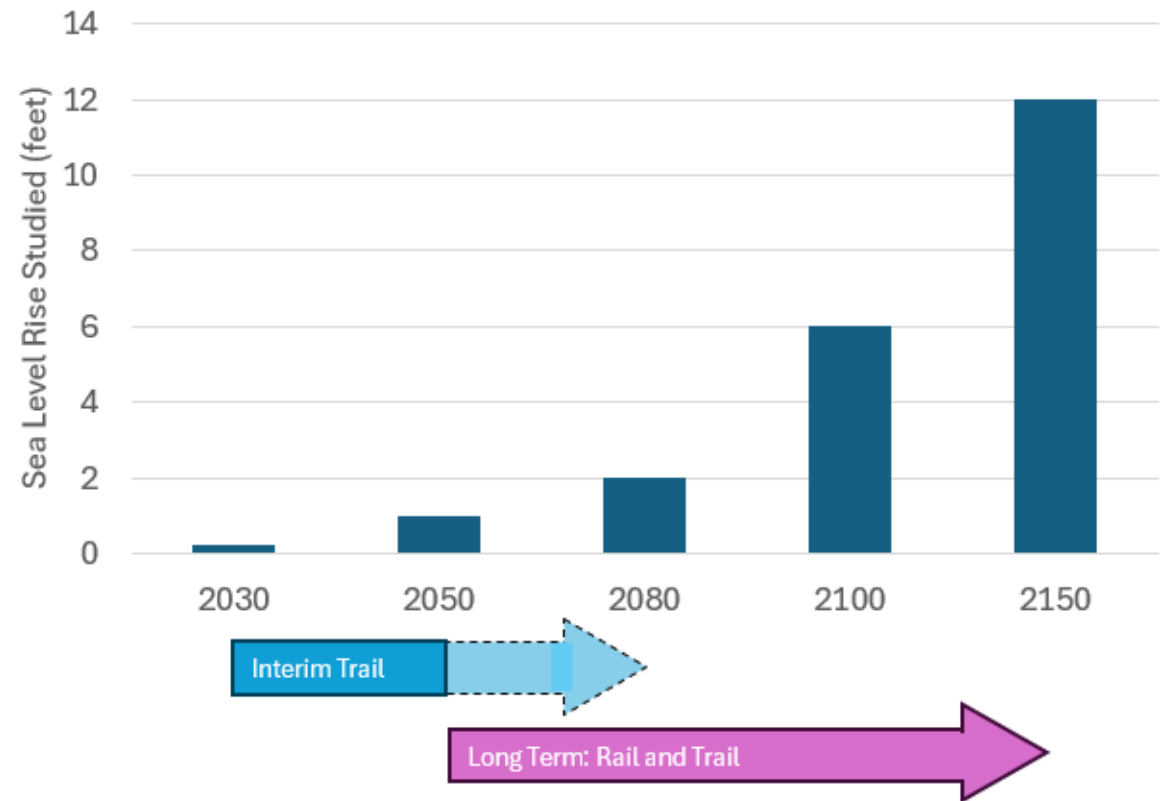
Estimated life of
project is 50 years
(2080)



Long Term: Rail and Trail

Construction
around 2050

Estimated life of
project is 100 years
(2150)



Overview of the Process



Key Points of Input



- Feedback on the **preliminary concepts, are there any design features we are missing?**
- What are your initial thoughts on the **evaluation criteria? Are there specific data points you think would be beneficial to measure the benefits or disadvantages of each concept?**

Climate Resilience & Hazards



What Is a Hazard?



Hazard: an undesirable event that could occur.

The Climate Resilience Study is focused on the following hazards:



Flooding



Coastal Erosion

What Is the Role of Climate Change?



Climate change causes storms to hold more rain. The resulting **river floods are larger.**



= Larger Floods

Image source: sfgate.com



Climate change causes sea levels to rise. Higher tides and waves **increase coastal flooding and erosion.**



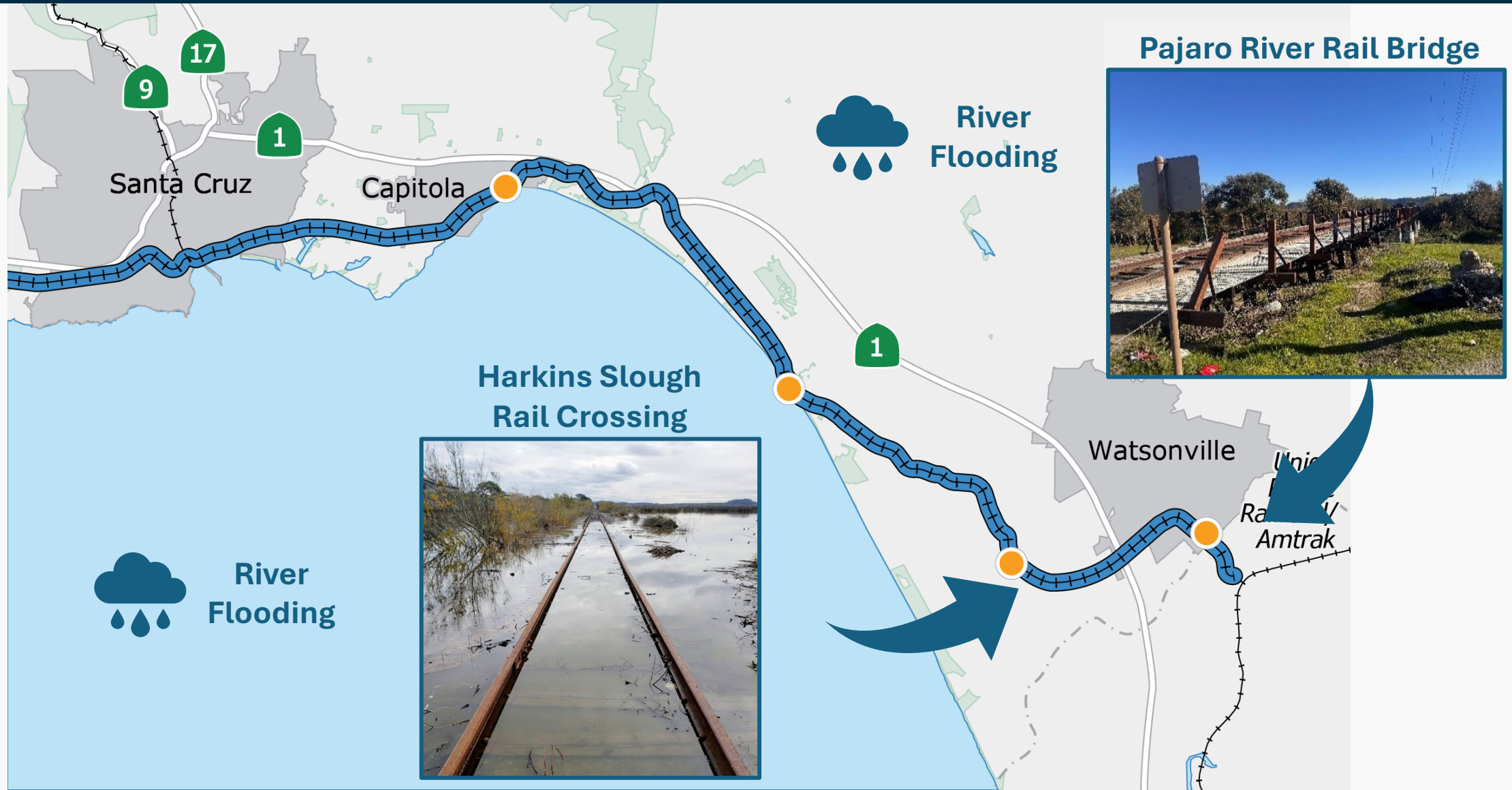
= More Coastal Erosion

Image source: Capitola Police Dept.

Where Is This a Problem?



Where Is This a Problem?

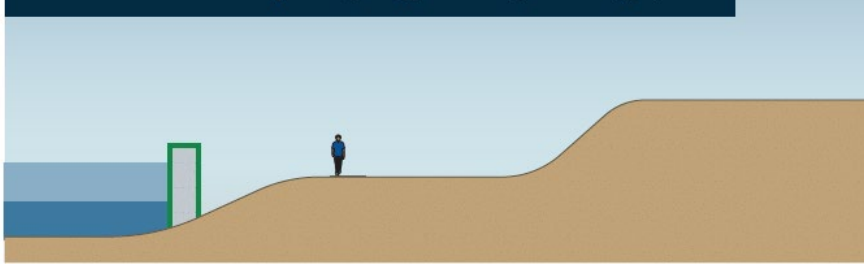


What Do We Do About It?

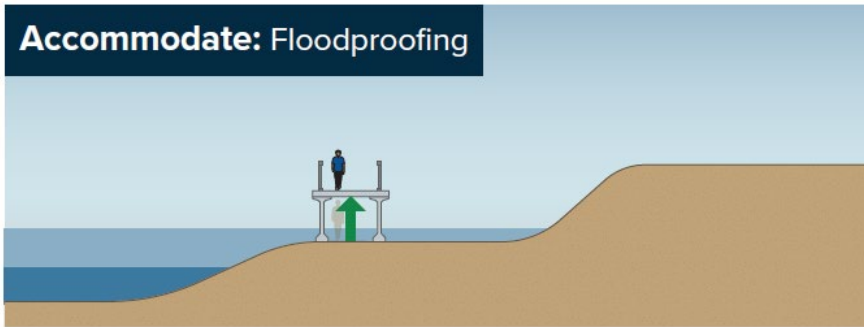


Short Term: Interim Trail

Protect: Retaining wall, vegetation, drainage, etc.



Accommodate: Floodproofing



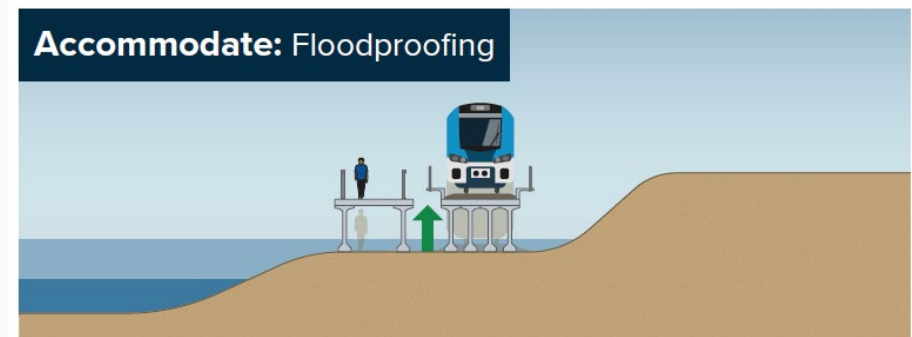
Retreat: not analyzed for Interim Trail

Long Term: Rail and Trail

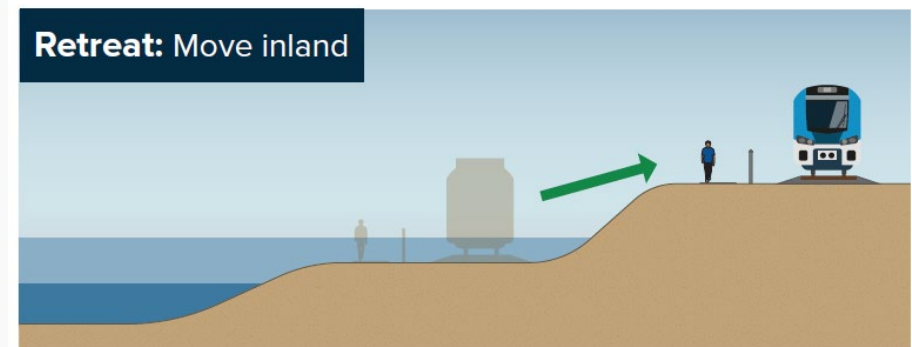
Protect: Retaining wall, vegetation, drainage, etc.



Accommodate: Floodproofing



Retreat: Move inland



Site Specific Hazards & Concepts

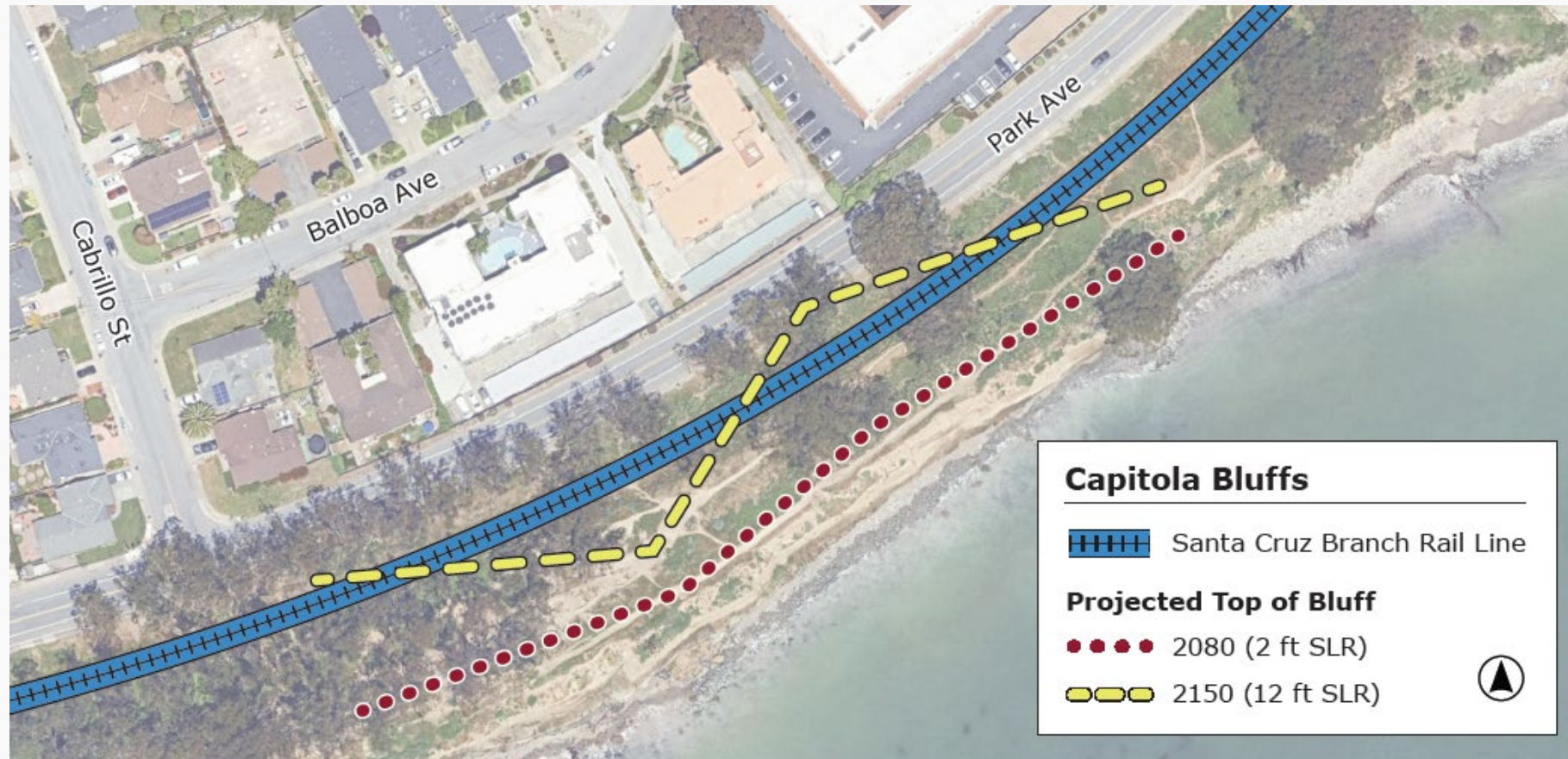


Capitola Bluff

Hazard: Erosion



Coastal
Erosion



Erosion at Capitola Bluff
Image Source: santacruzsentinel.com

Note: 2150 projection is based on 12' SLR by 2150. 2080 projection is based on 2' SLR by 2080.

Capitola Bluff

Concepts: Protective/Short Term



1



Retaining Wall

2



Rock Slope Protection

3



Beach Nourishment

4



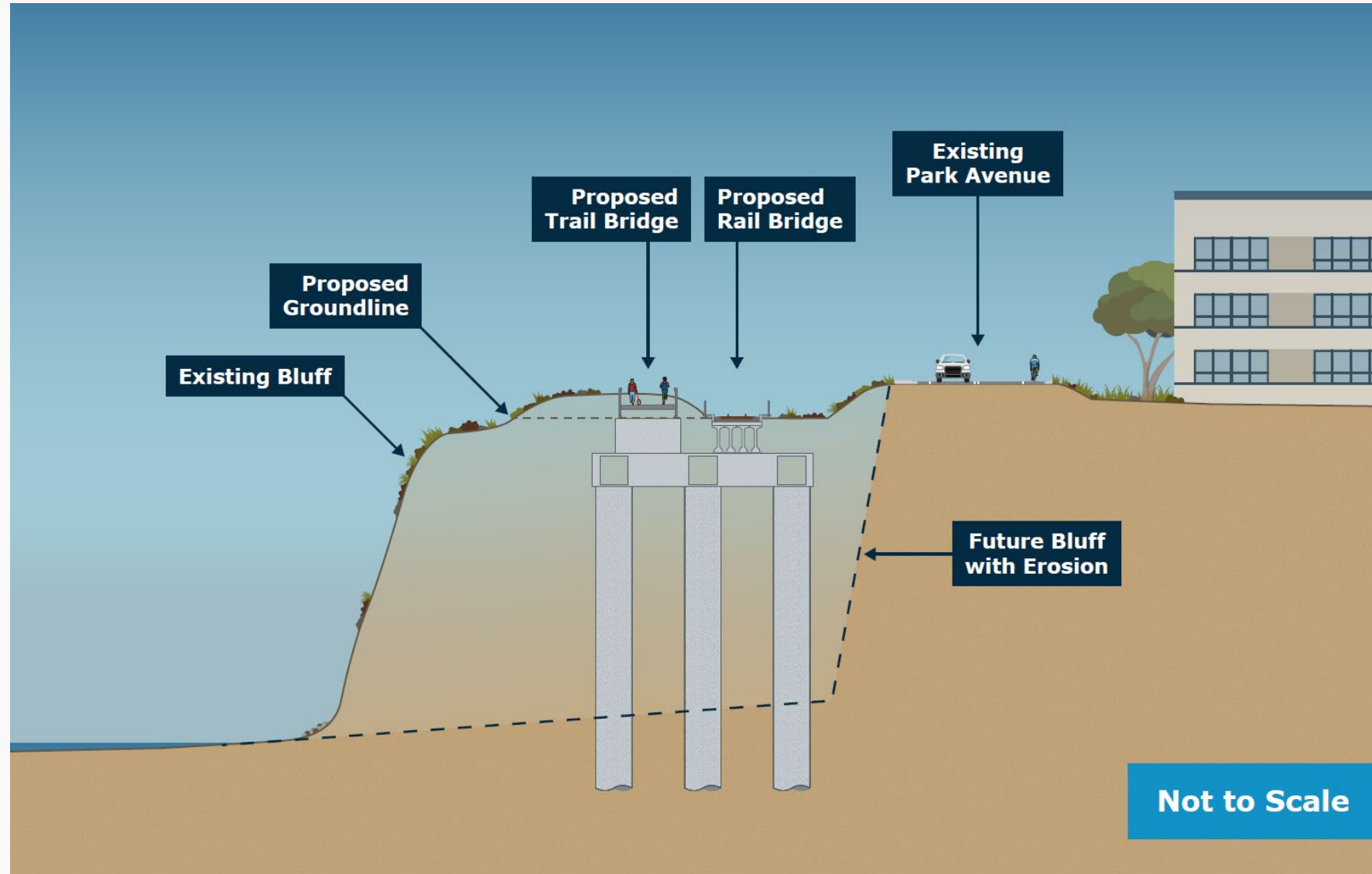
Sand Retaining Groins

Capitola Bluff

Concepts: Buried Viaduct



5

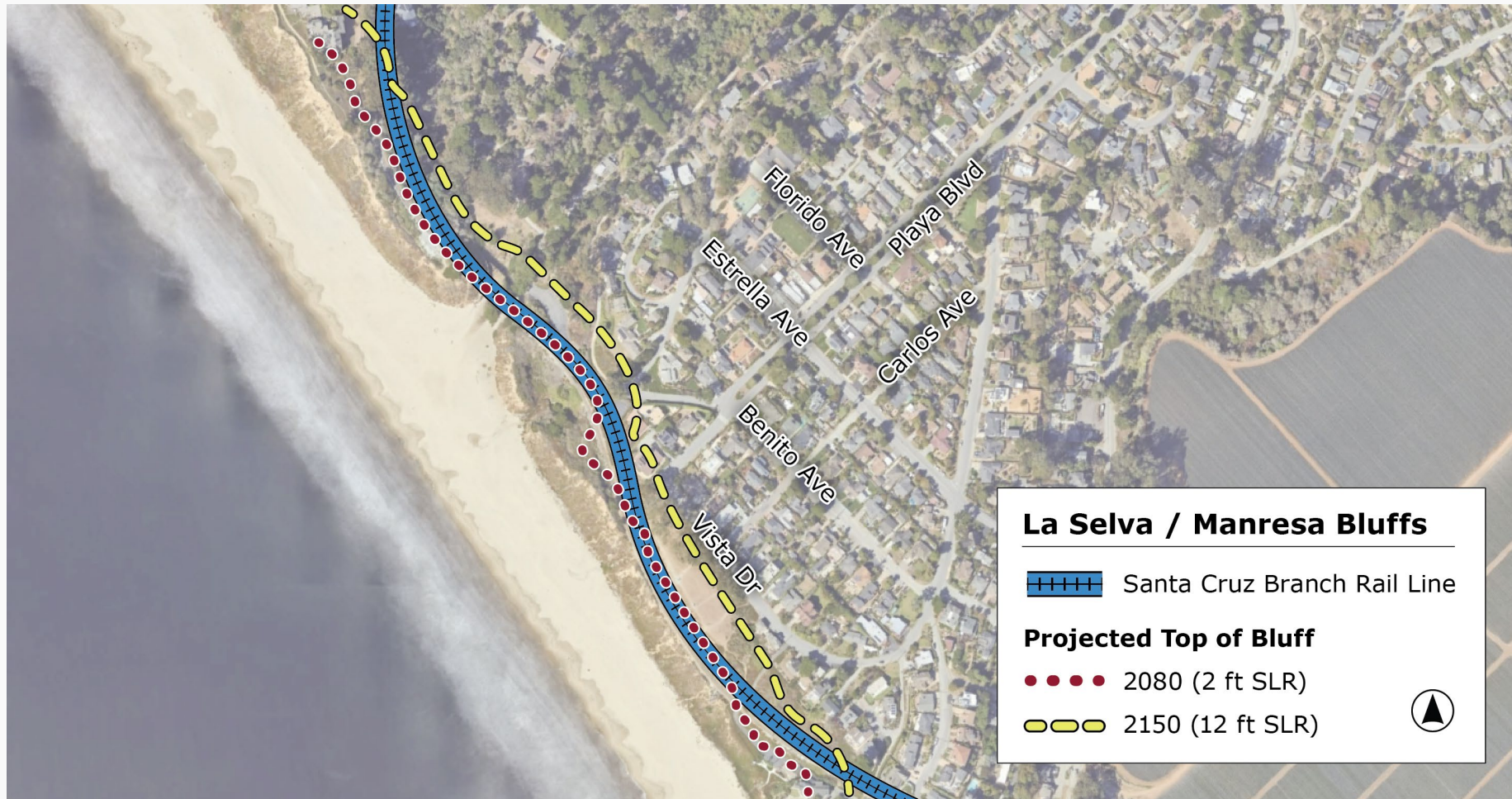


La Selva/Manresa Bluffs

Hazard: Erosion



Coastal
Erosion



SCBRL Corridor at La Selva Bluff

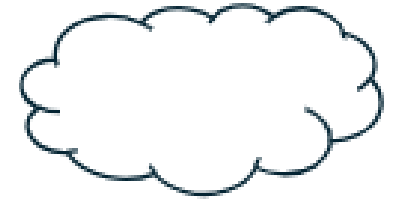
Note: 2150 projection is based on 12' SLR by 2150. 2080 projection is based on 2' SLR by 2080.

La Selva/Manresa Bluffs

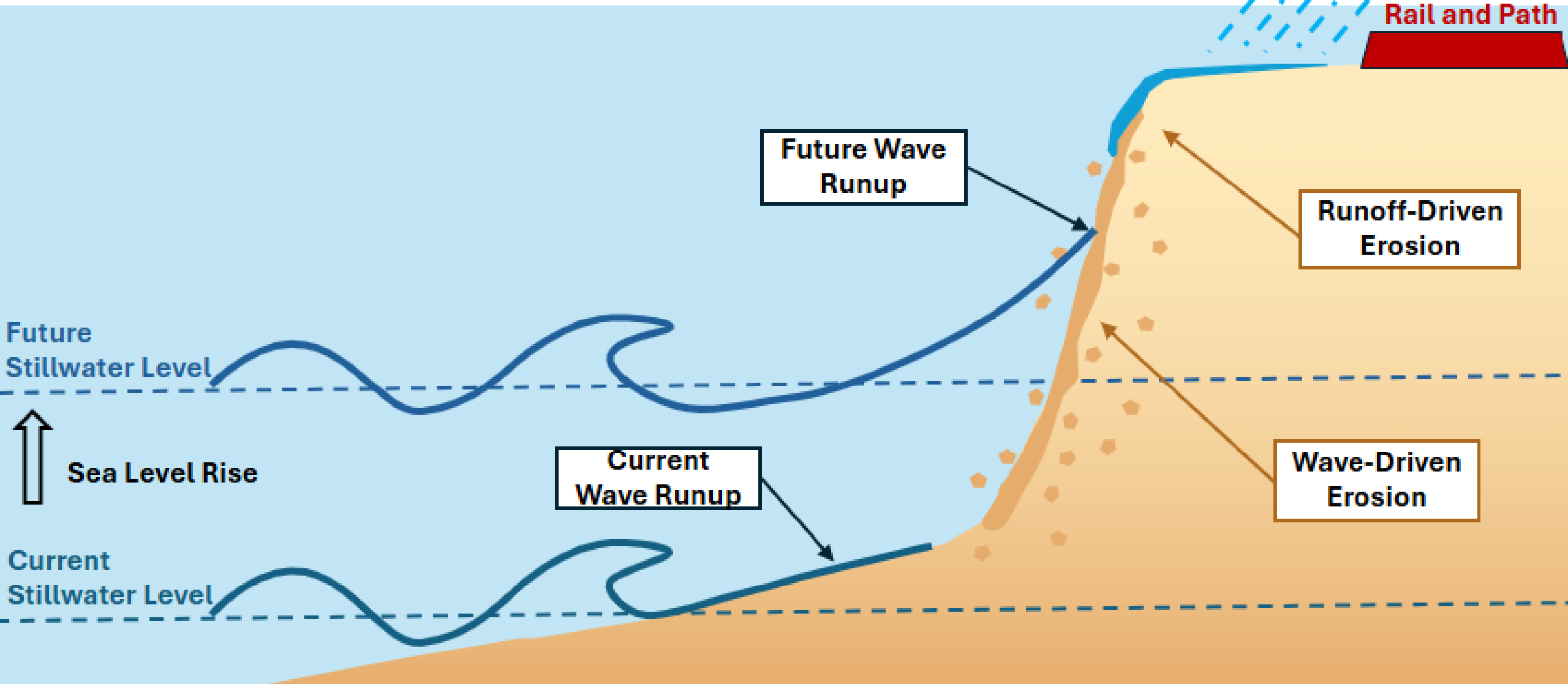
Hazard: Erosion



Coastal
Erosion



Rail and Path



La Selva/Manresa Bluffs

Concepts: Protective/Short Term



1

**Drainage
Improvements**



2

Vegetation Restoration

&

3

Dune Creation



4

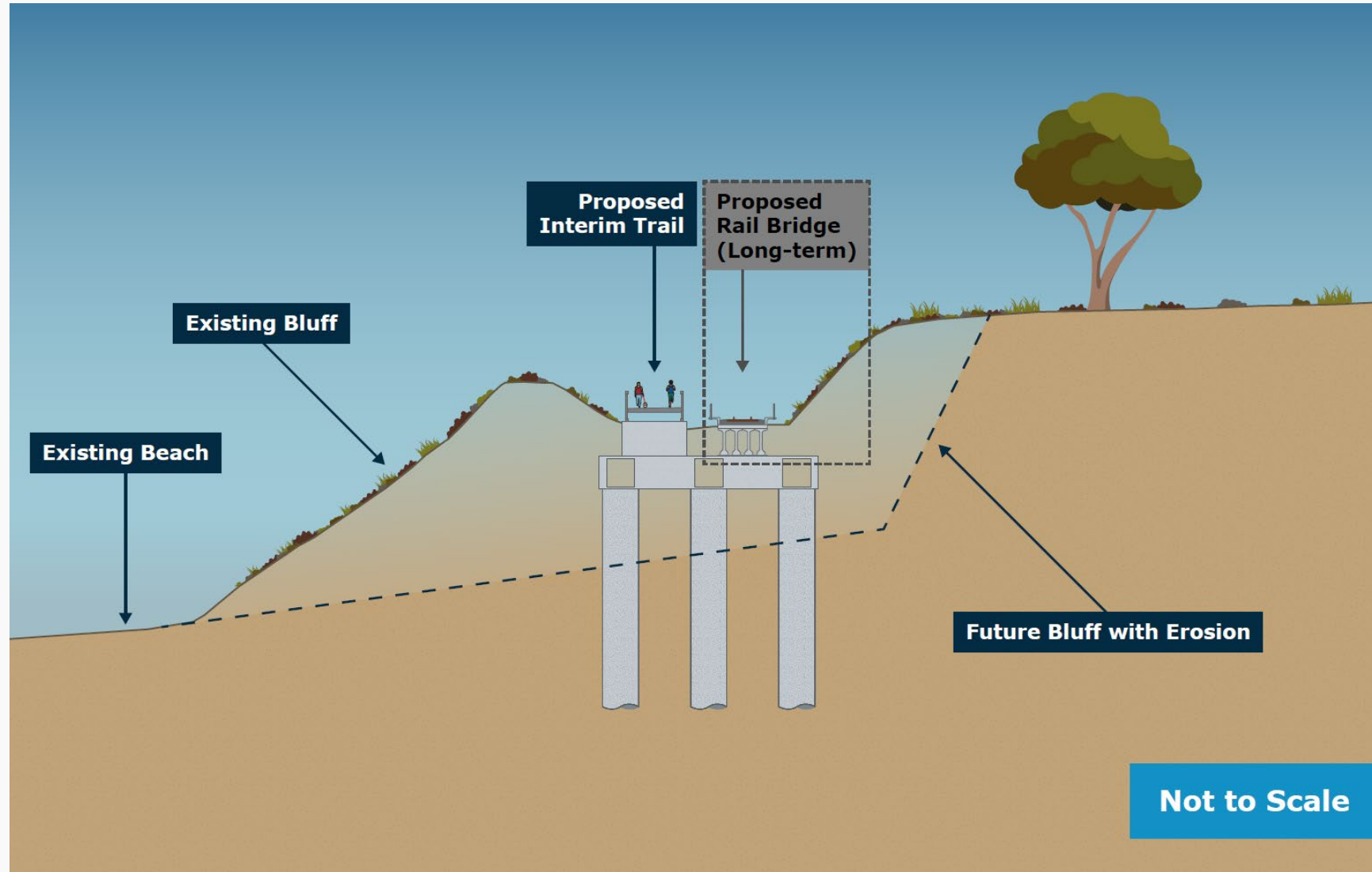
Rock Slope Protection

La Selva/Manresa Bluffs

Concepts: Buried Viaduct



5

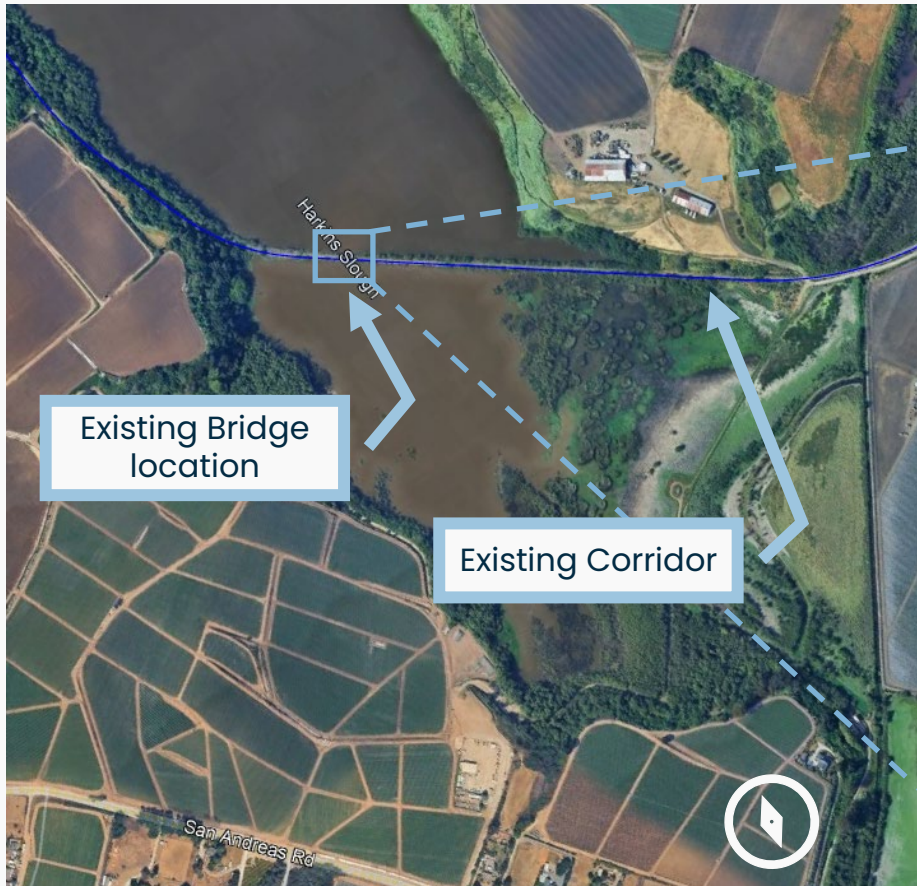


Harkins Slough

Hazard: Flooding



Coastal and River
Flooding



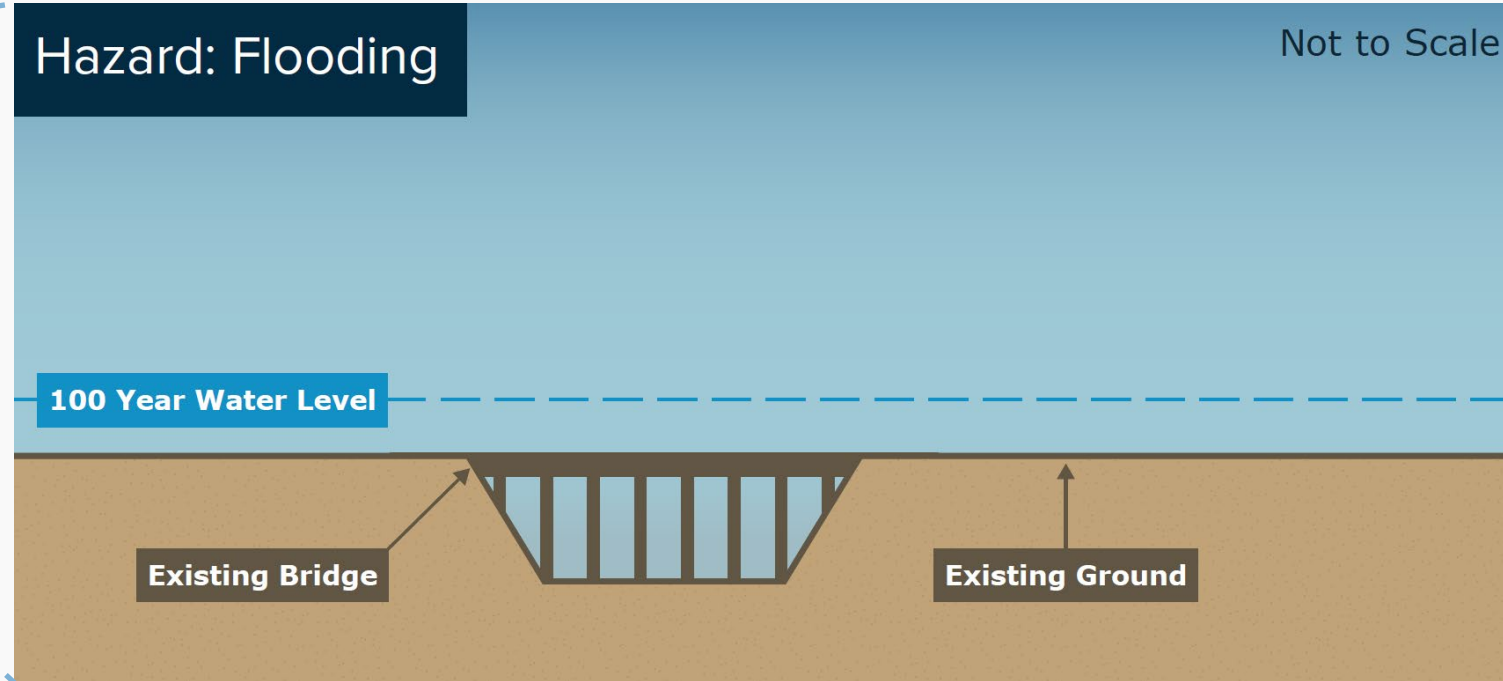
Hazard: Flooding

Not to Scale

100 Year Water Level

Existing Bridge

Existing Ground



Harkins Slough

Concepts: Retrofit or Replace Bridge



1

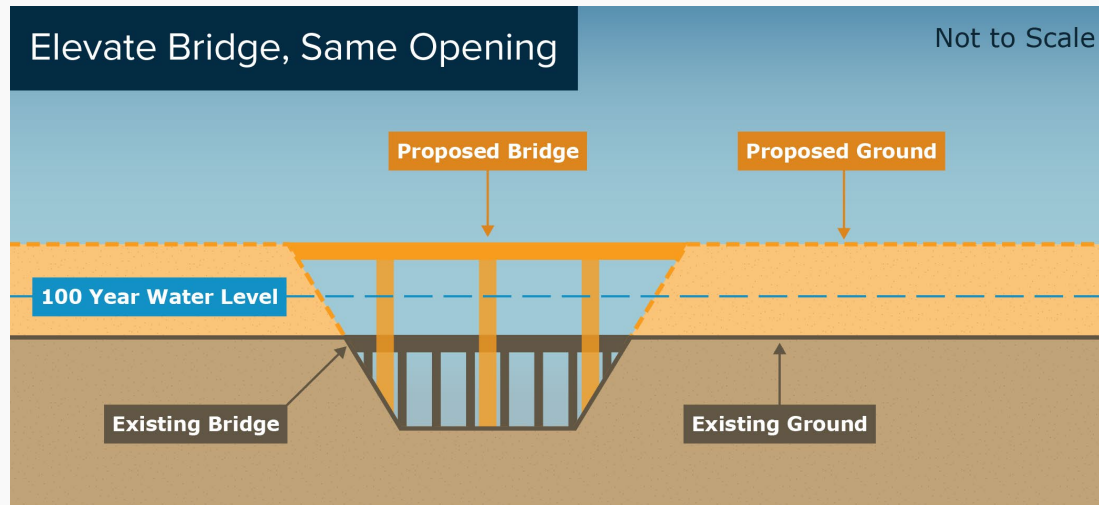


**Retrofit Existing Bridge
(Short Term – Interim Trail only)**

2

Elevate Bridge, Same Opening

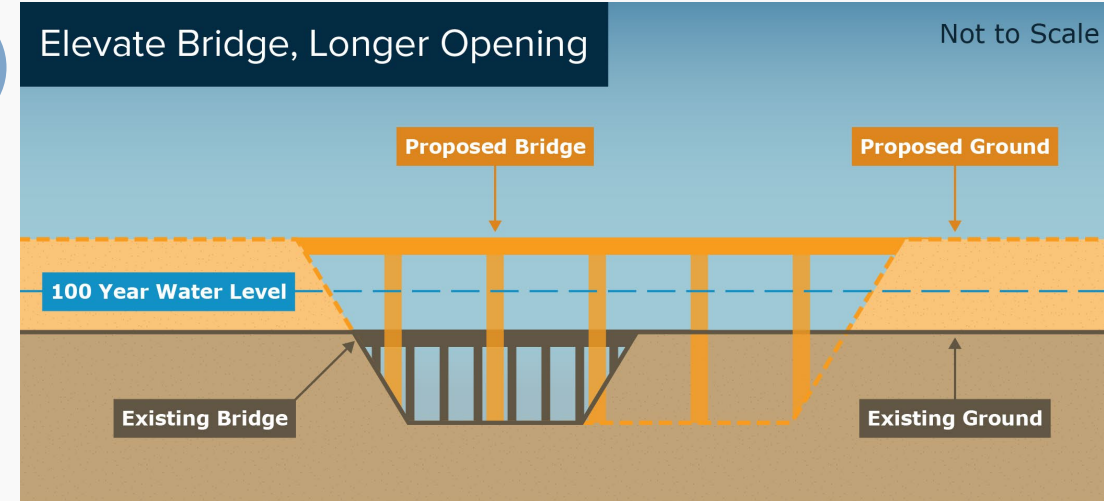
Not to Scale



3

Elevate Bridge, Longer Opening

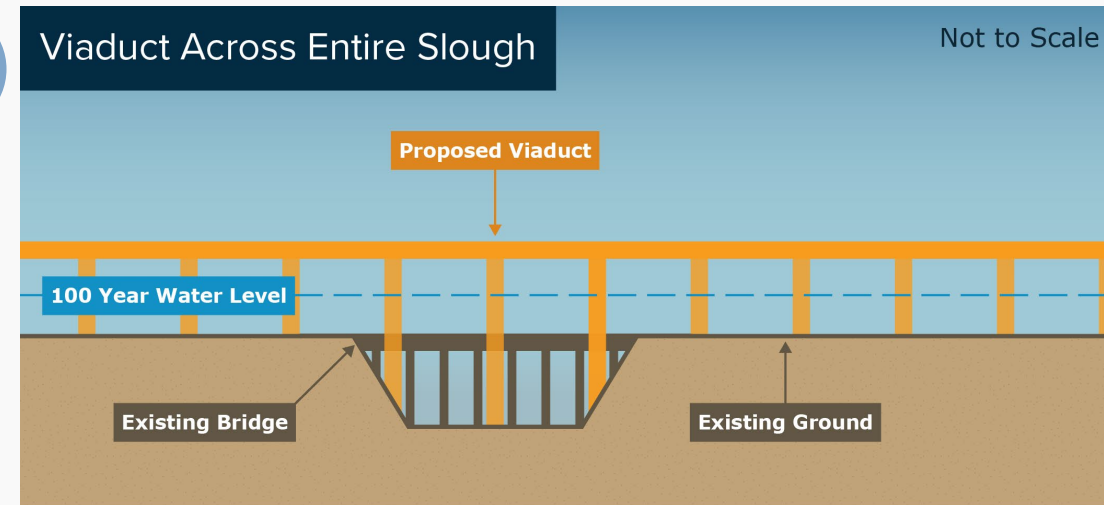
Not to Scale



4

Viaduct Across Entire Slough

Not to Scale



Pajaro River

Hazard: Flooding

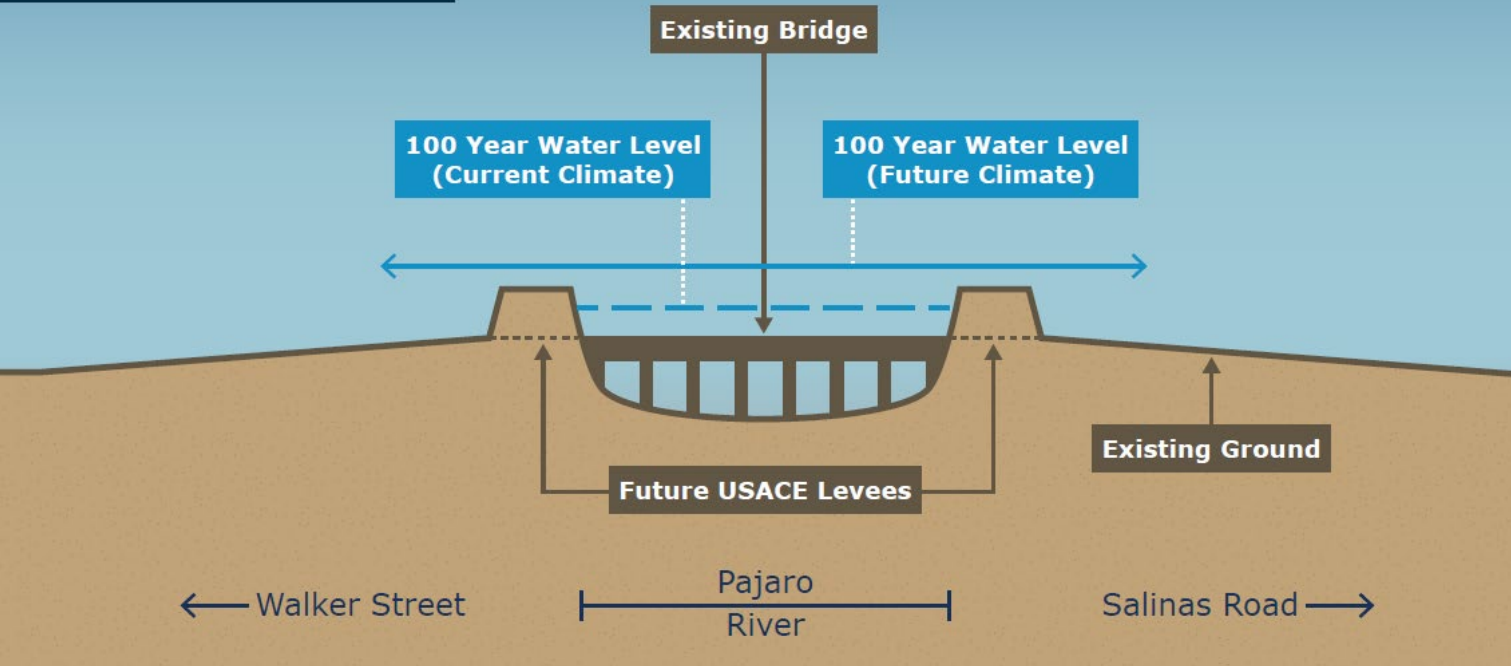


River
Flooding



Hazard: Flooding

Not to Scale



Pajaro River

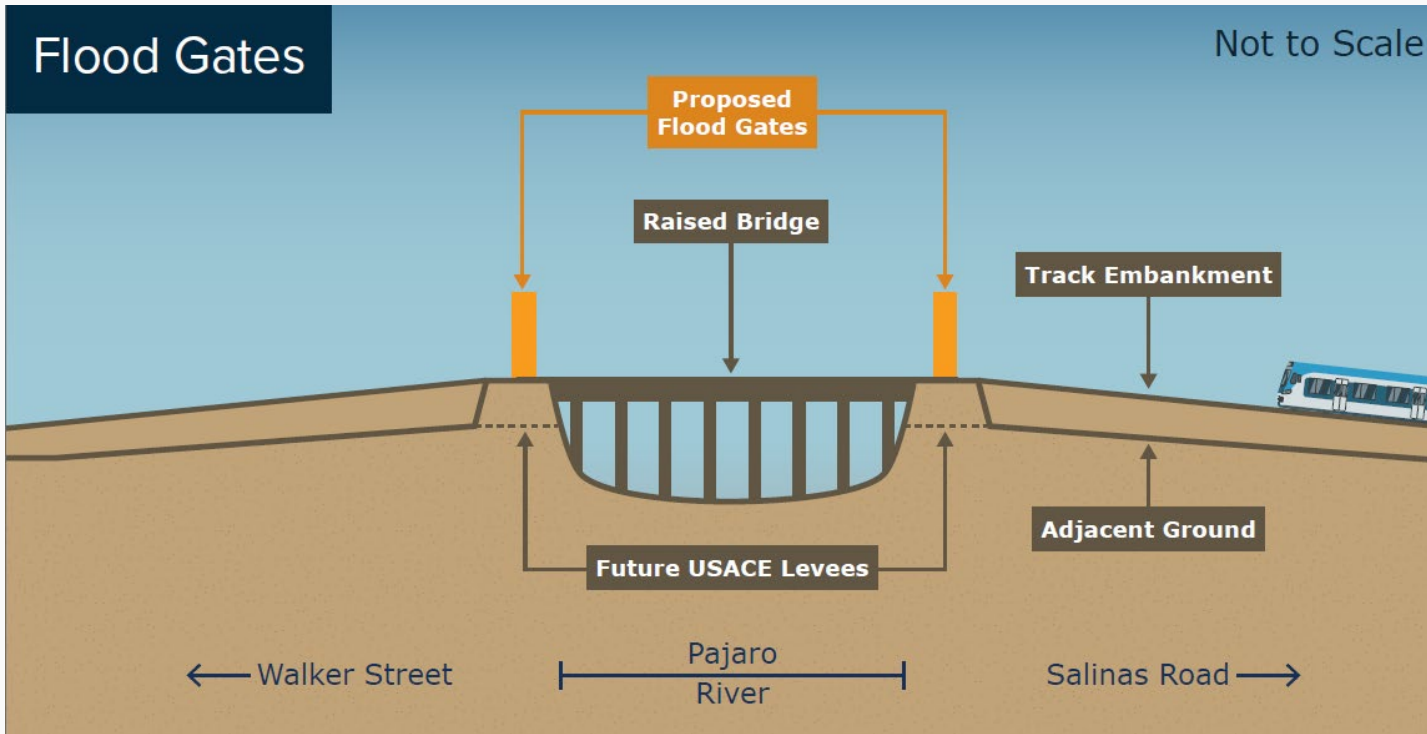
Concepts: Flood Gates



1

Flood Gates

Not to Scale

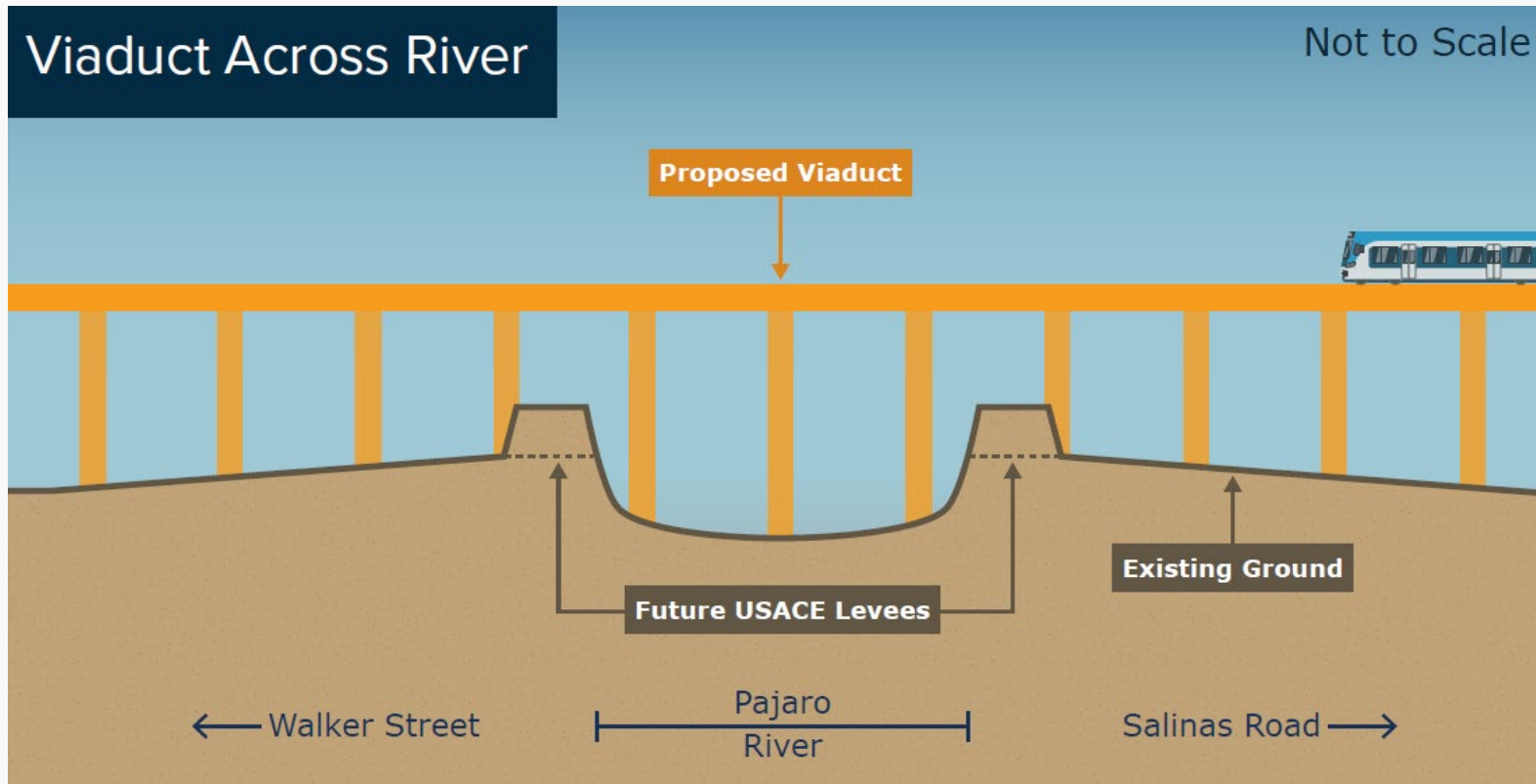


Pajaro River

Concepts: Viaduct



2



Relocation Concepts



Why Relocation?



- Relocation is a strategy to retreat from the climate hazards.
- Moving existing facilities inland
 - Options could include relocation on an existing roadway.
- Relocation inland evaluation is a question often asked by the permitting resource agencies consistent with the California State Sea Level Rise Guidance (Protect, Accommodate, Retreat).

Capitola Bluff

Concepts: Relocation



- Freight and passenger rail to Park Ave. on a viaduct.
- Freight and passenger rail inland to Monterey Ave. on a viaduct.

La Selva/Manresa Bluffs

Concepts: Relocation



- Freight and passenger rail to Highway 1 corridor.
 - Connects with the existing SCBRL corridor at Buena Vista Drive.
- Separate freight and passenger rail.
 - Freight rail remains in current alignment.
 - Passenger rail to follow Highway 1 corridor to Watsonville.

Harkins Slough

Concepts: Relocation



- Freight and passenger rail along San Andreas Rd. to Watsonville
- Separate freight and passenger rail.
 - Freight rail remains in current alignment.
 - Passenger rail to Highway 1 corridor to Watsonville.

Pajaro River

Concepts: Relocation



- Bridge crossing moved 1,500 feet southwest of existing rail bridge.
 - Would require relocation of the planned Watsonville passenger rail station, likely along Riverside Dr. south of downtown.

Evaluation Criteria



How will Concepts be Evaluated?

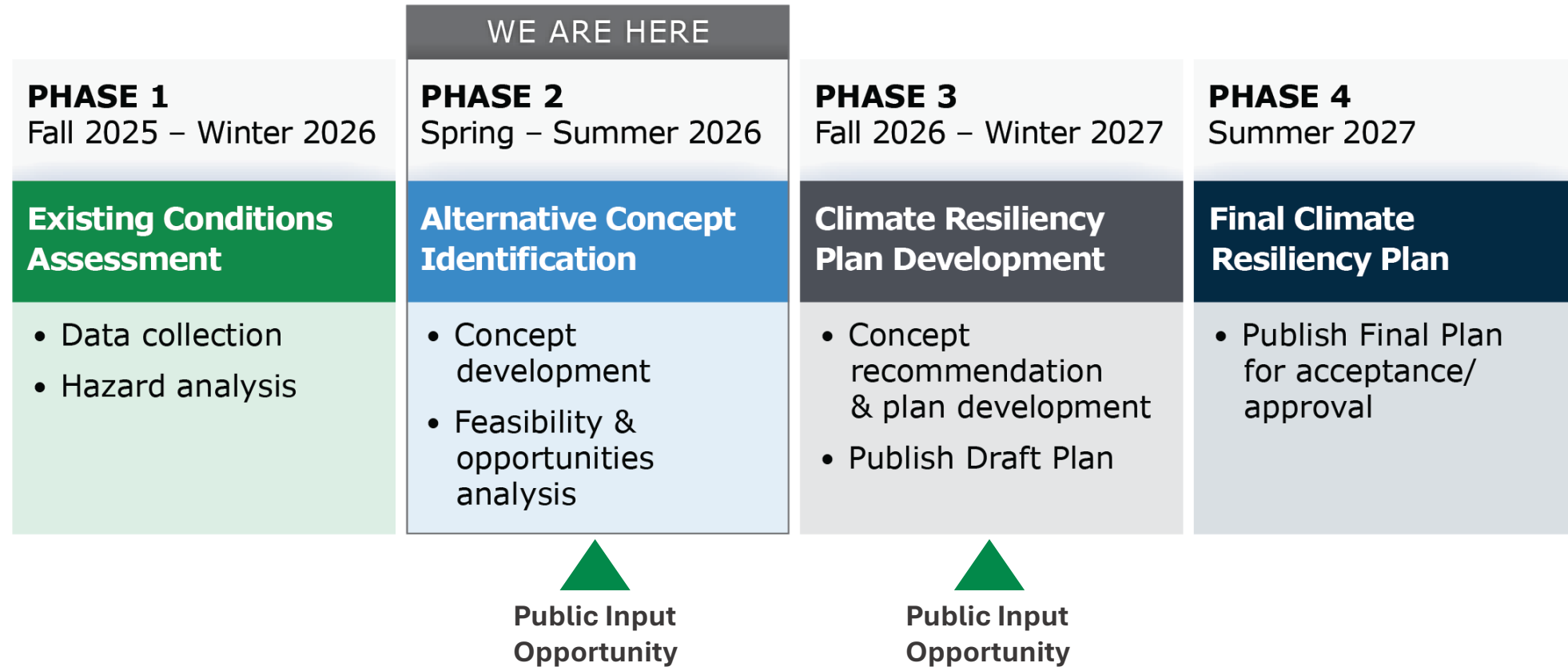


Evaluation Criteria
Resilience to coastal hazards (2 sites) and riverine flood hazards (2 sites)
Resilience to wildfire hazards
Capital Cost (estimated cost to construct)
Environmental impacts (to sensitive habitat, ecosystem processes, etc.)
Public access to the coast and coastal recreation
Multimodal and active transportation benefits (including benefits to transit-dependent and underserved populations)
Acceptability to stakeholders and the public
Others to be identified

Schedule & Next Steps



Climate Resilience Study Schedule



Next Steps



- Study will **identify recommendations for RTC to carry forward in future planning efforts** for the interim rail, ultimate trail, and freight and passenger rail.
- Will be incorporated into project descriptions for future environmental review and/or permitting and construction.

Community Meetings



- In-Person Community Workshops
 - June 9, 6–7:30 p.m. at the Aptos Grange Community Center
 - June 10, 6–7:30 p.m. at the Watsonville Civic Plaza Community Room (4th Floor)
- Join in-person to review information, maps and exhibits, and provide feedback*
- Commission Meeting – June 11

Thank you!

