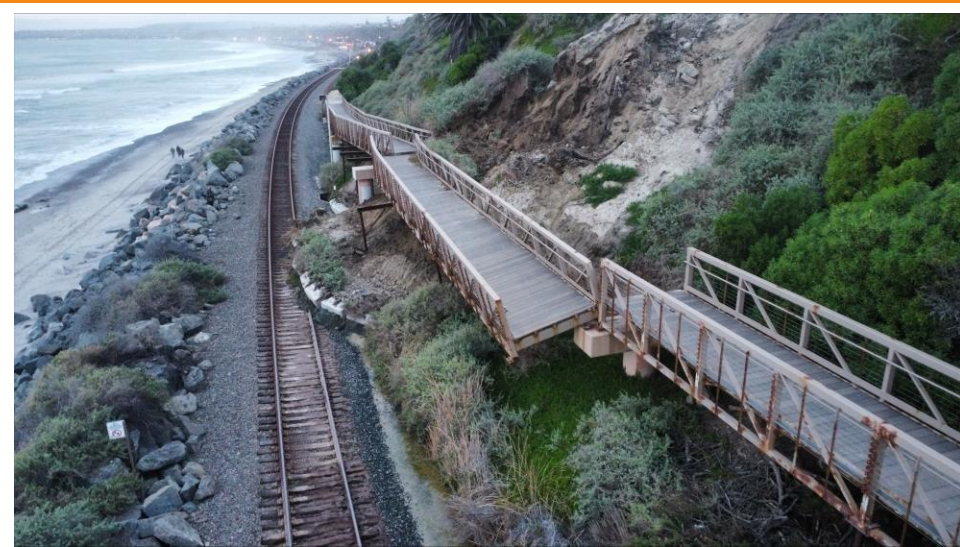




# Working Together Toward a Resilient Coastal Rail Corridor

**Darrell E. Johnson, OCTA Chief Executive Officer**  
LOSSAN Rail Corridor Resiliency Subcommittee • April 29, 2024

# Mariposa Point Track Protection (MP 204.2)



**Project Cost: ~\$9.2 million**

- Caltrans issued an emergency declaration, allowing OCTA to request emergency funding
- Fully funded by the California Transportation Commission
- **\$2 million** – Phase 1 (cleanup)
- **\$8 million** – Phase 2 (catchment wall)



- Work included:
  - Removing two damaged spans of the pedestrian bridge
  - Grading the slope and clearing debris
  - Placement of Visqueen plastic, and other best management practices to prevent surface water infiltration
  - Building a 200-foot catchment wall to keep soil and debris from entering the rail right of way

**Jan. 24:** Rail line closes

**Feb. 1:** Caltrans issues emergency declaration

**Feb. 7:** CTC authorizes \$2 million for debris removal and pre-construction services

**Feb. 16:** CTC authorizes \$7.2 million for wall construction

**March 6:** Limited Amtrak Pacific Surfliner service resumes

**March 25:** Full passenger service resumes

# Partnering for Resilient Rail Solutions



Emergency rail projects highlighted the critical role of partnerships in rapid response and restoration of services.

## Initial Response 2022

- These actions allowed OCTA to expedite work at Cyprus Shore to safely restore passenger rail service:
  - **Caltrans** declares state transportation emergency
  - **CTC** holds special meeting for emergency funding
  - **OCTA** Board declares emergency

## New Policy 2023

- **CTC** establishes new policy allowing for funding allocations for emergencies impacting publicly-owned rail facilities:
  - Policy influenced by **OCTA's** experience at Cyprus Shore

## Policy Outcomes 2023 - 2024

- New policy expedites approval and funding process for both Casa Romantica and Mariposa Point, allowing OCTA and Metrolink to quickly build walls to protect the tracks and safely resume passenger rail service

## Future Direction

- **OCTA** is underway on a study looking at near-term solutions to protect Orange County's coastal rail infrastructure

## **Coastal Rail Resiliency Study** *short- to medium-term solutions*

- Study underway
- Develop options to protect 7 miles of coastal rail infrastructure at various sea levels
- Gain an understanding of climate effects on coastal rail infrastructure
- Identify potential solutions, including sand replenishment and retention
- Engage key stakeholders and agencies

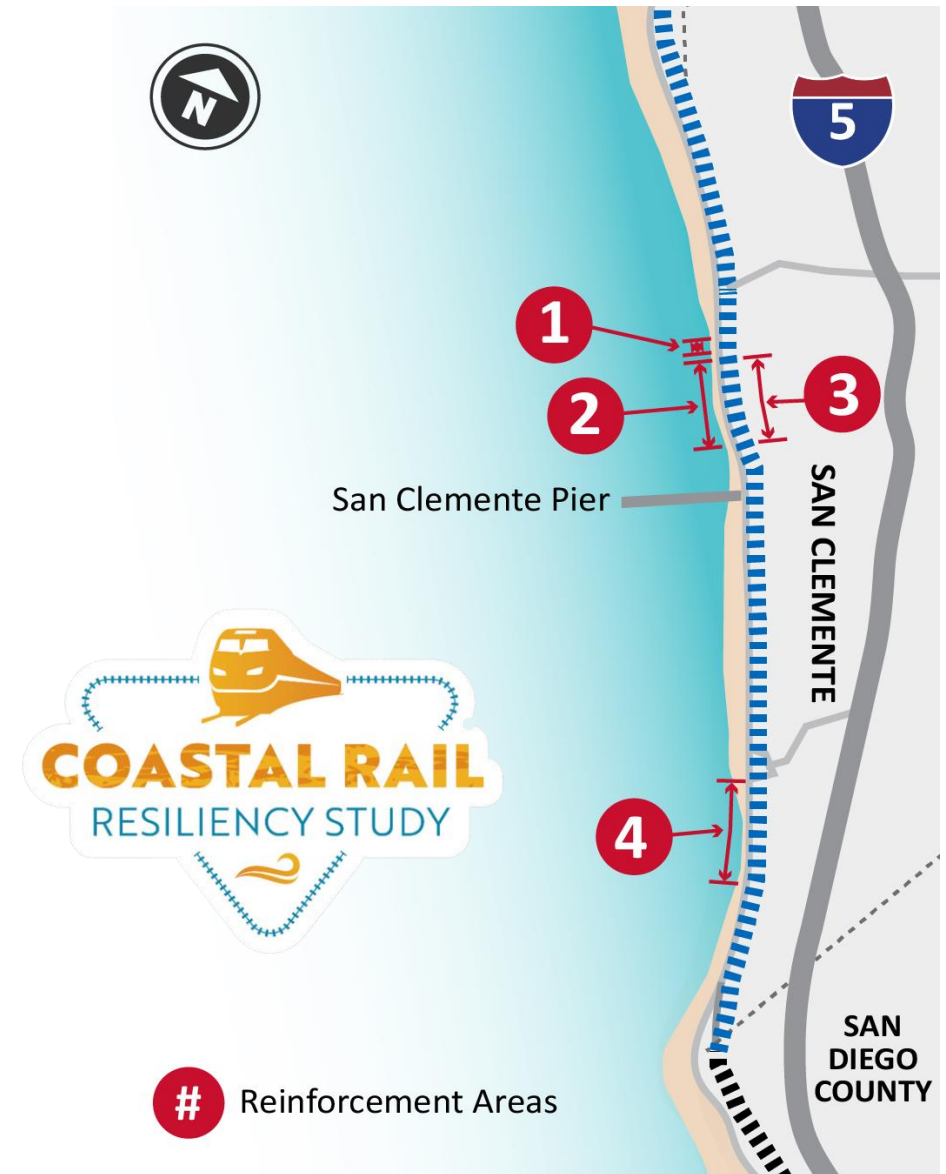
## **Coastal Rail** **Long-Term Solutions Study**

- Develop options for potential long-term solutions for the coastal section of rail line
- Create an action plan for key elements
- Partner with LOSSAN, state and federal agencies
- Engage key stakeholders and agencies

# Coastal Rail Resiliency Study: Initial Assessment



- Four reinforcement areas that are most vulnerable to beach erosion, wave impacts and slope failure were identified in December 2023
- Potential solutions need to be in place or substantially underway by fall 2024 ahead of next storm season to avoid potential interruptions to rail operations
- Potential solutions evaluated at a conceptual level considering different materials, performance, costs, methods and schedule



# Coastal Rail Resiliency Study

## Initial Assessment Estimated Project Timeline: *Typical Permit Process*



<b>Rock &amp; Wall:</b> ~67,000 to 84,000 tons ~\$183-195 million	<b>Sand Nourishment:</b> ~480,000 to 540,000 cubic yards ~\$64-145 million	<b>Total Estimated Cost:</b> ~\$247-340 million
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### Key Assumptions

#### Environmental Compliance & Permitting:

- Assumes all work qualifies under the California Environmental Quality Act emergency provisions and National Environmental Policy Act Categorical Exclusion
- California Coastal Commission
  - A Coastal Development Permit would require completed permitting process prior to work beginning
  - All work assumes advance coordination with Coastal Commission on appropriate permit process
- U.S. Army Corps of Engineers
  - Anticipates requirement of a Nationwide Permit 13

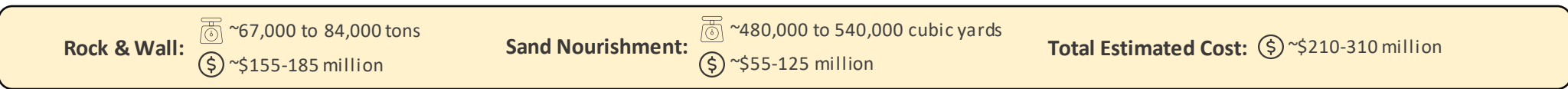
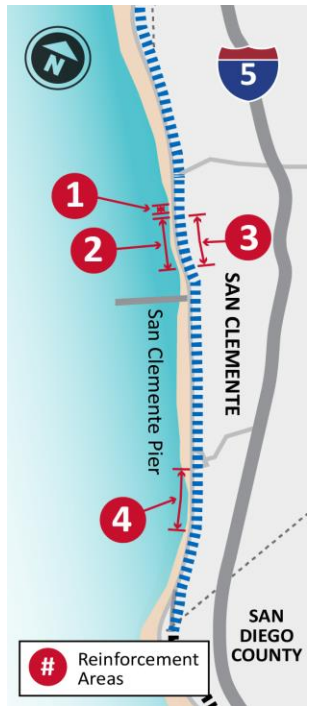
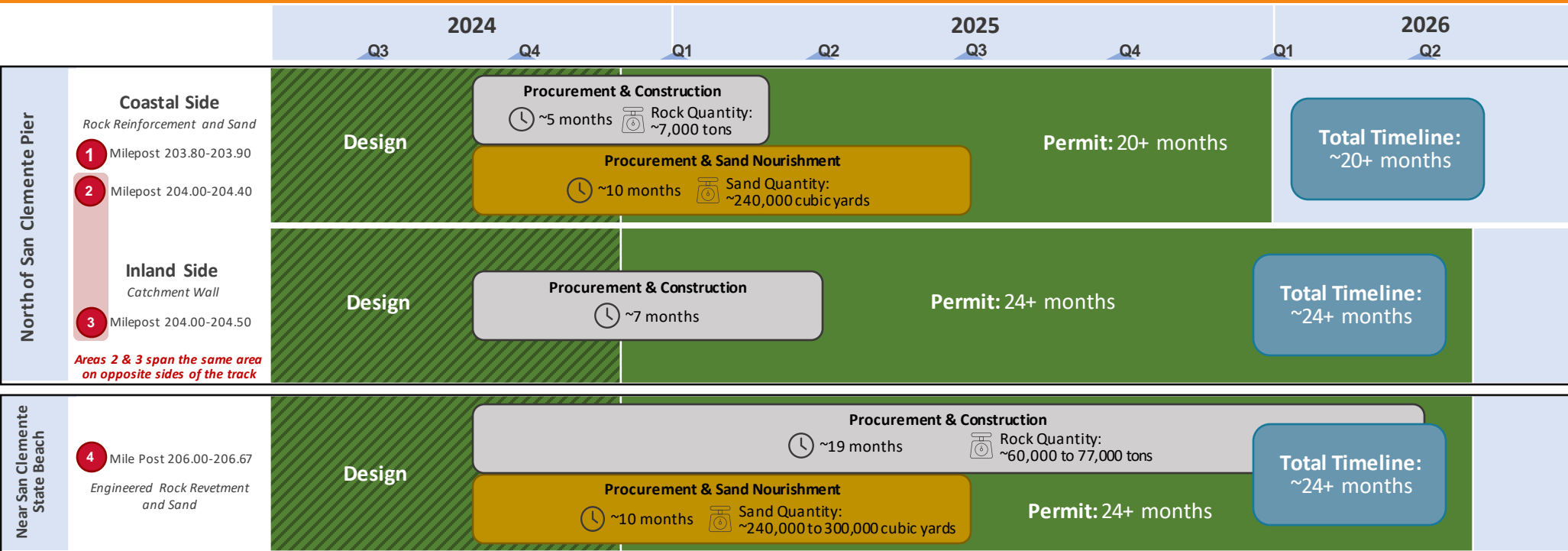
#### Construction & Sand Nourishment:

- Catchment wall construction timeline assumes no sensitive species, habitat, and/or aquatic resources that require additional permitting
- Sand nourishment schedule assumes OCTA can procure sand via dredging by fall 2026
- Assumes ~480,000 to 540,000 cubic yards of sand nourishment through one cycle, pending permits, dredge, and borrow source availability

*Schedule and cost are preliminary and subject to change*

# Coastal Rail Resiliency Study

## Initial Assessment Estimated Project Timeline: Expedited Permit Process



### Key Assumptions

#### Environmental Compliance & Permitting:

- Assumes all work qualifies under the California Environmental Quality Act emergency provisions and National Environmental Policy Act Categorical Exclusion
- California Coastal Commission
  - All work assumes advance coordination with Coastal Commission on appropriate permit process
- U.S. Army Corps of Engineers
  - Assumes Regional General Permit (RGP 63) for sand nourishment
  - Nationwide Permit 13 (if applicable, adds a minimum of 6 months)

#### Construction & Sand Nourishment:

- Catchment wall construction timeline assumes no sensitive species, habitat, and/or aquatic resources that require additional permitting
- Sand nourishment schedule assumes OCTA can procure sand via dredging by fall 2024, otherwise timeline requires a minimum of one to two more years for next available dredger scheduled in the area
- Assumes ~480,000 to 540,000 cubic yards of sand nourishment through one cycle, pending permits, dredge, and borrow source availability

*Schedule and cost are preliminary and subject to change*

# Coastal Rail Resiliency Study: Milestones



## LISTENING SESSIONS

- Engage with a wide range of stakeholders with unique and diverse backgrounds and needs
- Obtain feedback from stakeholders and interest groups: winter '24

## INITIAL CONCEPT DEVELOPMENT

- Draft Concepts: spring to Fall '24
- Obtain feedback from stakeholders and interest groups: fall '24

## DRAFT FEASIBILITY STUDY REPORT

- Draft Report: spring '25 to summer '25
- Obtain feedback from stakeholders and interest groups

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## INITIAL ASSESSMENT

- Initiated: Nov '23
- Potential reinforcement areas identified: Dec '23
- Release Report: Feb '24

2

## LISTENING SESSIONS

- Engage with a wide range of stakeholders with unique and diverse backgrounds and needs
- Obtain feedback from stakeholders and interest groups: winter '24

3

## PURPOSE AND NEED/ EVALUATION CRITERIA

- Draft: Spring '24
  - Informed by listening session feedback

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## INITIAL CONCEPT DEVELOPMENT

- Draft Concepts: spring to Fall '24
- Obtain feedback from stakeholders and interest groups: fall '24

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## REFINEMENT OF CONCEPTS

- Refined Concepts: spring '25
- Obtain feedback from stakeholders and interest groups: spring '25

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## DRAFT FEASIBILITY STUDY REPORT

- Draft Report: spring '25 to summer '25
- Obtain feedback from stakeholders and interest groups

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## FINAL FEASIBILITY STUDY REPORT

- Final Report: fall '25
- Present to Board/Publish Final Report: fall '25