

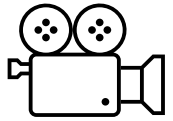


Coastal and Marine Habitat CBOs Listening Session

March 20, 2024



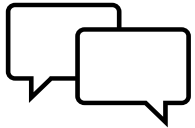
Meeting Format



- This meeting is being recorded for documentation purposes.



- Verbal comments will be received after the presentation during the listening session.



- Written comments and questions can be submitted through the chat.



- If you would like to speak, please use the “Raise Hand” button at the bottom of the Zoom screen. State your name and organization prior to providing your comment.

Agenda

- History
- Goals and Objectives
 - Short and Mid-term Study
 - Potential Reinforcement Areas
- Study Schedule/Key Milestones
- Study Outreach
- Listening Session
- Next Steps



OCTA's Role in the LOSSAN Corridor

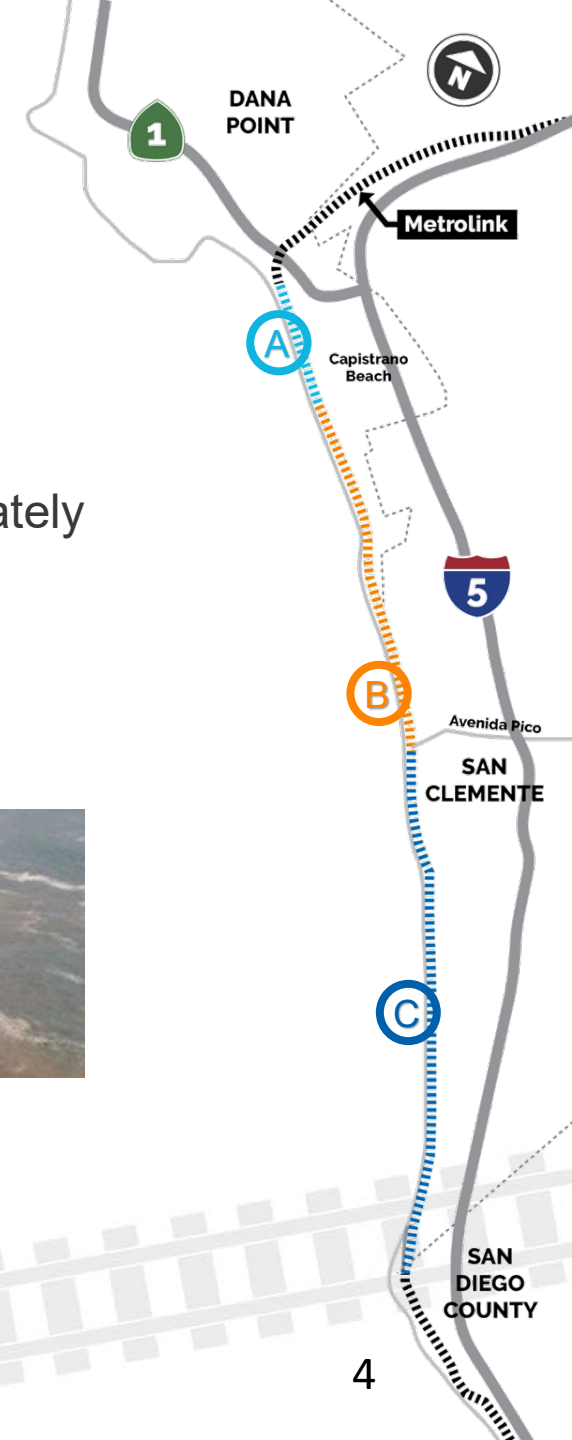
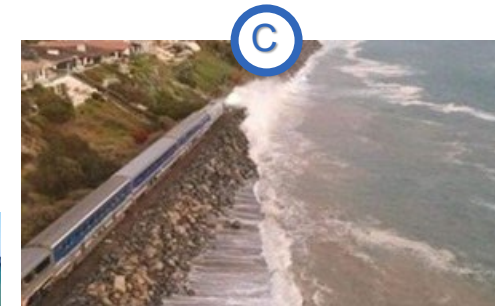
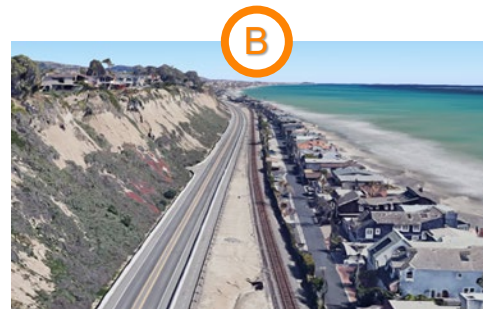
- Owns 40+ miles of the corridor, including seven miles of critical coastal track in south Orange County
- Serves as the managing agency for the LOSSAN Rail Corridor Agency
- Member of the Southern California Regional Rail Authority (Metrolink) joint powers authority that uses the LOSSAN corridor

COASTAL RAIL RESILIENCY STUDY

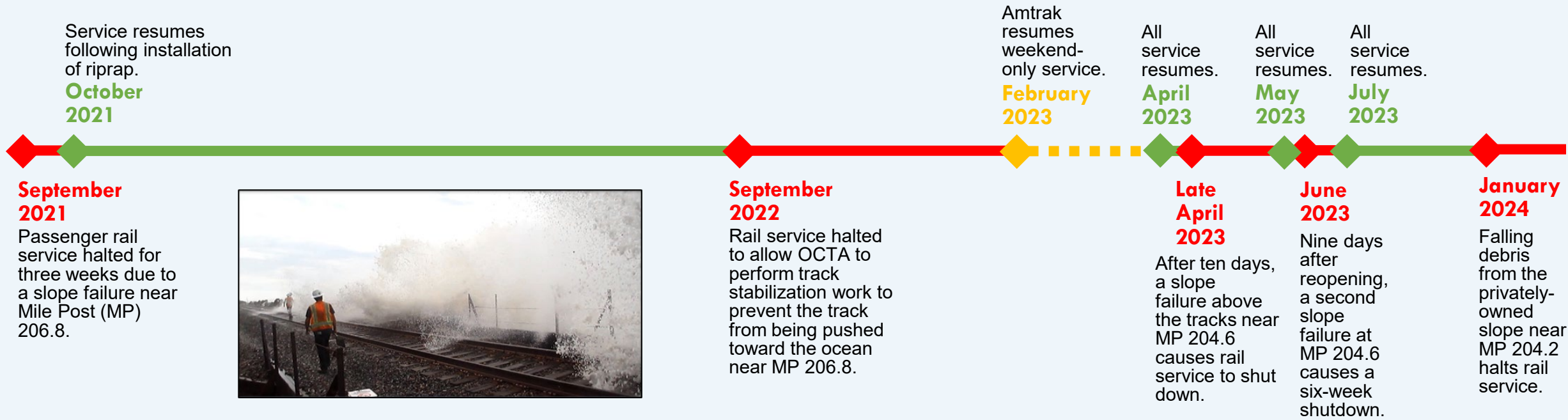
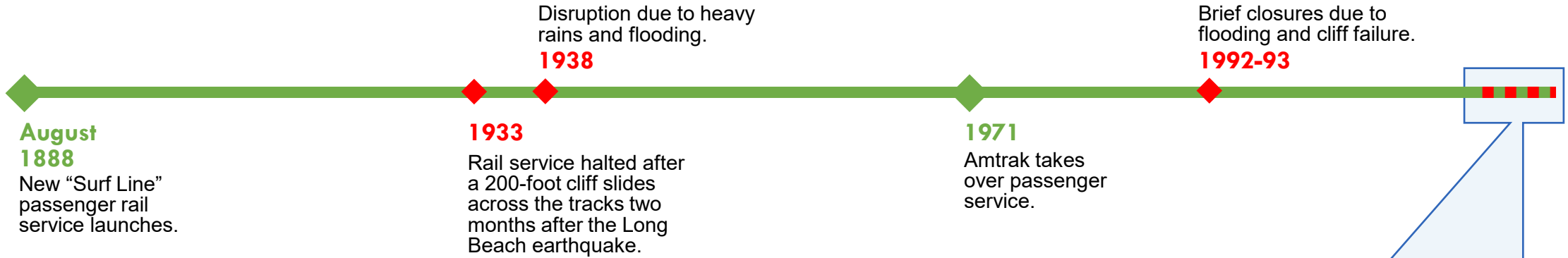
OCTA's Beachside Rail Line

In south Orange County, tracks run along the beach, sandwiched between bluffs and the ocean.

Most of this beachside rail line is approximately 200 feet or less from the coastline.



Passenger Rail Closures



■ Passenger rail open
 ■ ■ ■ ■ Limited passenger service available
 ■ Passenger rail suspended

Changing Conditions

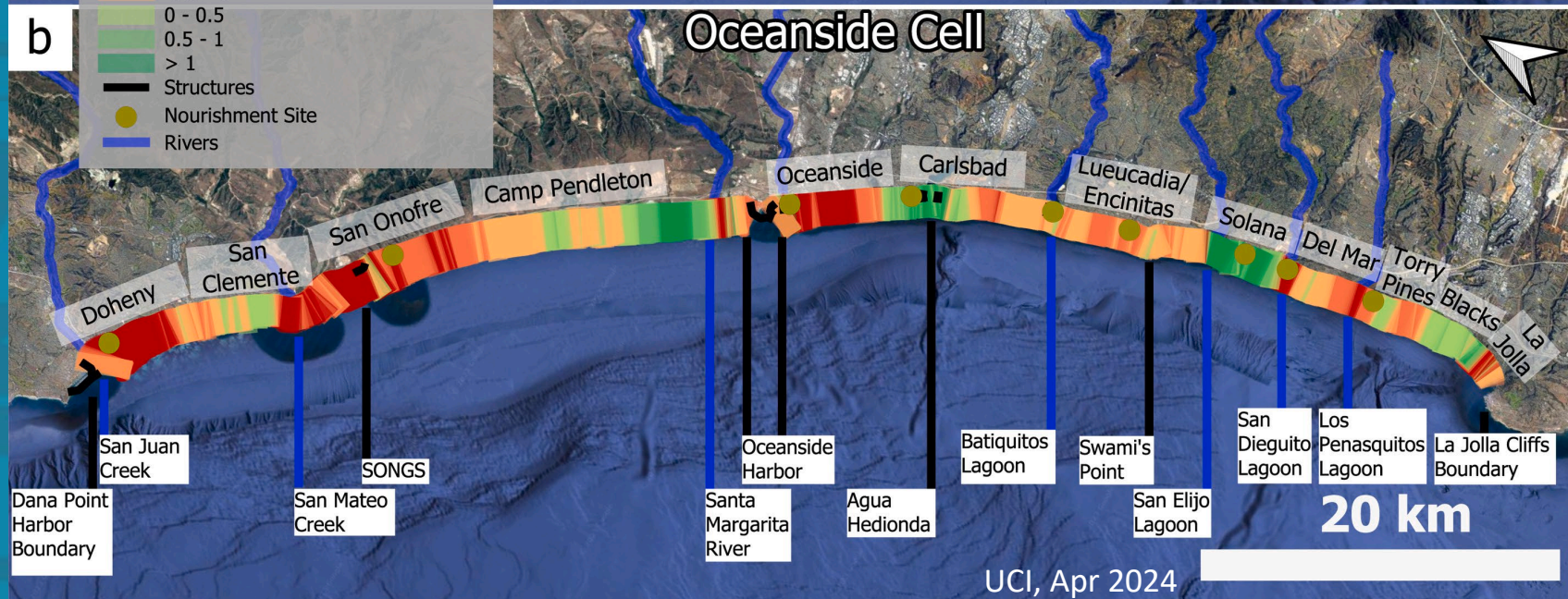
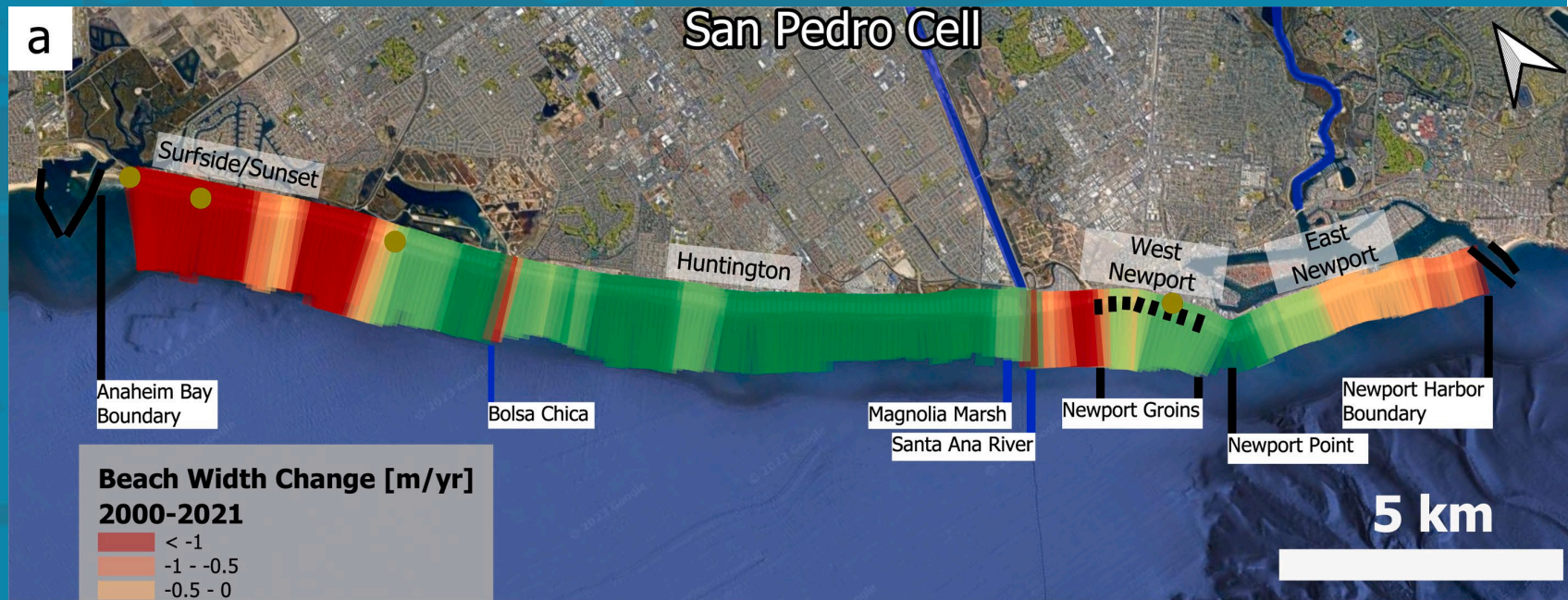


Milepost 206.8



- Beach erosion
- Recent coastal studies
- Prior studies by state/federal agencies
- Milepost 206.8 incident
- Need to develop phased solutions to address infrastructure impacts

Critical Shoreline Areas



Local Resiliency Activities

PROJECT	ACTIVITY	COST	TIMEFRAME
Cyprus Shore Initial Track Stabilization Project (MP 206.8)	Emergency placement of riprap	\$8 million	September 2021
Cyprus Shore Track Stabilization Project (MP 206.8)	Installation of ground anchors in response to adjacent landslide	\$13.7 million+	October 2022 – August 2023
San Clemente Track Protection Project (MP 204.6)	Installation of temporary barrier wall in response to adjacent landslide	\$6 million	May – July 2023
San Clemente Track Protection Project (MP 204.2)	Removal of debris and other remedial action in response to adjacent landslide	\$TBD	Jan – TBD
San Clemente Shoreline Project (Sand Replenishment) (MP ~204.5 – 205.2)	Project would add 251,000 cubic yards of sand to the beach. Repeated at every 5-6 years interval up to 2 million cubic yards.	\$14.3 million (65% federal / 35% city cost sharing)	Fall 2023/ Winter 2024
San Clemente Nature-Based Coastal Resiliency Project Feasibility Study (community meeting)	This Study builds on the Shoreline Monitoring Program to promote long-term coastal resiliency in San Clemente.	\$570,000 (CCC LCP Grant Round 7)	Ongoing – Summer 2025

MP – Mile Post

Coastal Rail Resiliency: A Two-Phase Approach

Coastal Rail Resiliency Study

Short- to medium-term solutions

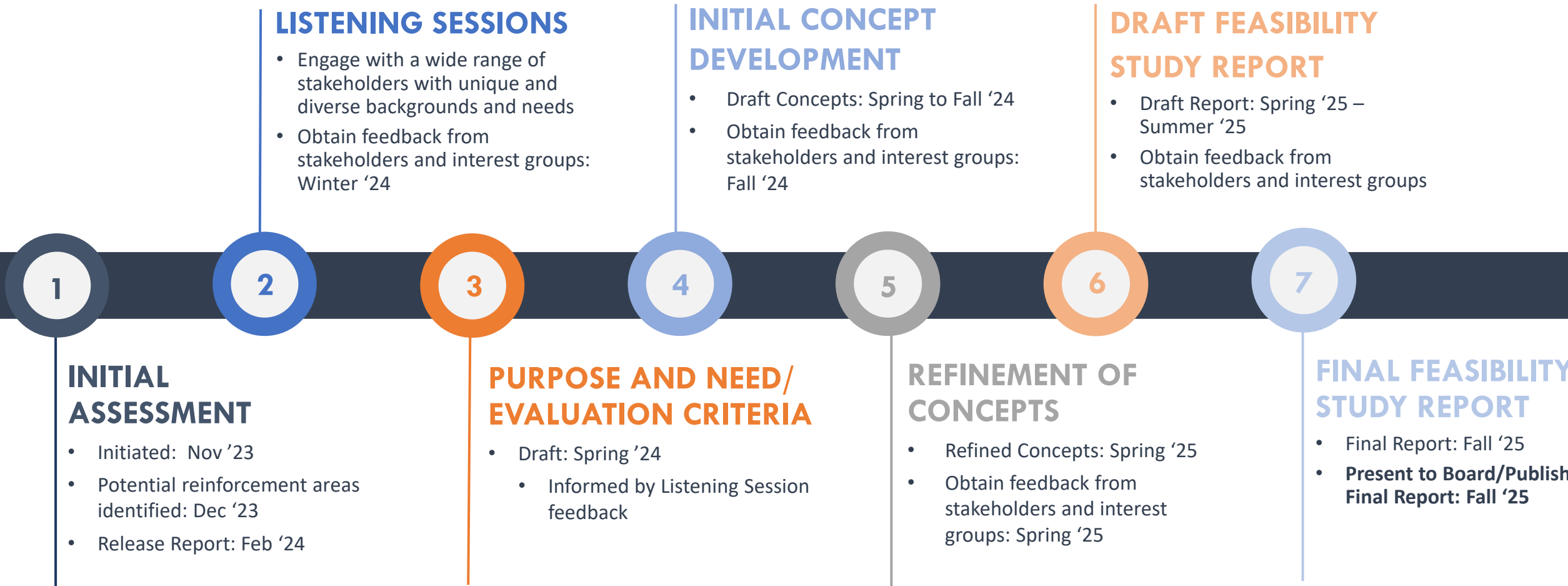
- Study underway
- Develop options to protect 7 miles of coastal rail infrastructure at various sea levels
- Gain an understanding of climate effects on coastal rail infrastructure
- Identify potential solutions, including sand replenishment and retention
- Engage key stakeholders and agencies

Coastal Rail Long-Term Solutions Study

Long-term solutions

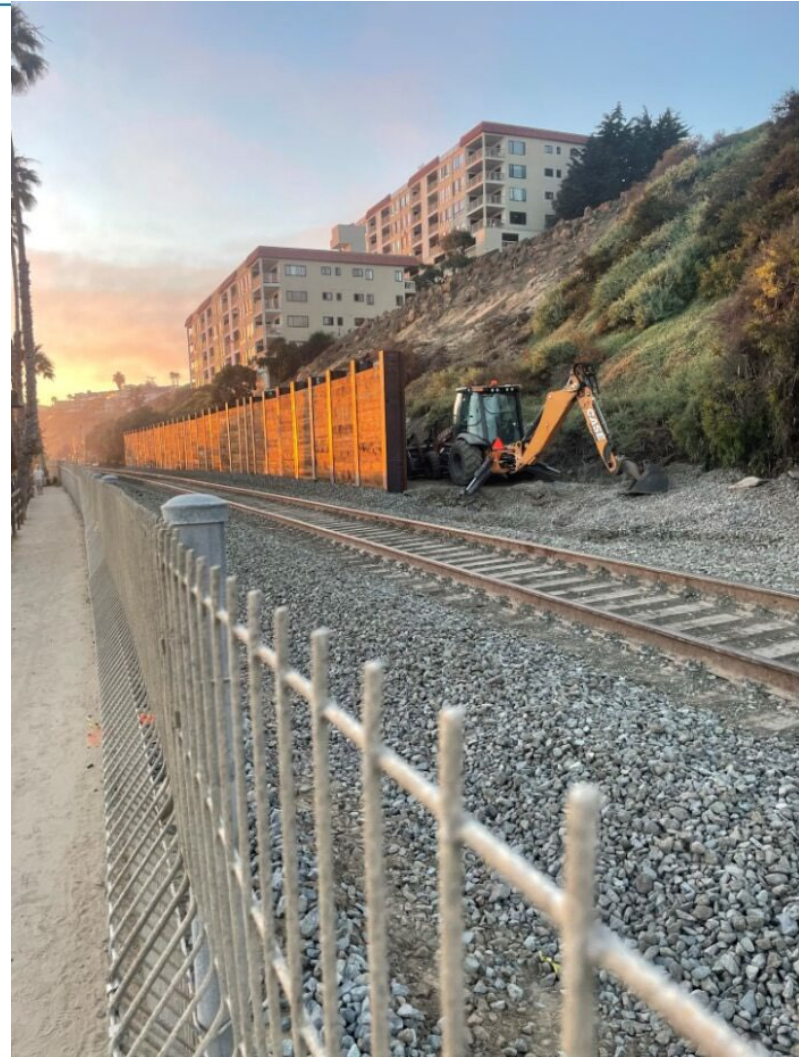
- Develop options for potential long-term solutions for the coastal section of rail line
- Create an action plan for key elements
- Partner with LOSSAN, state and federal agencies
- Engage key stakeholders and agencies

Study Milestones



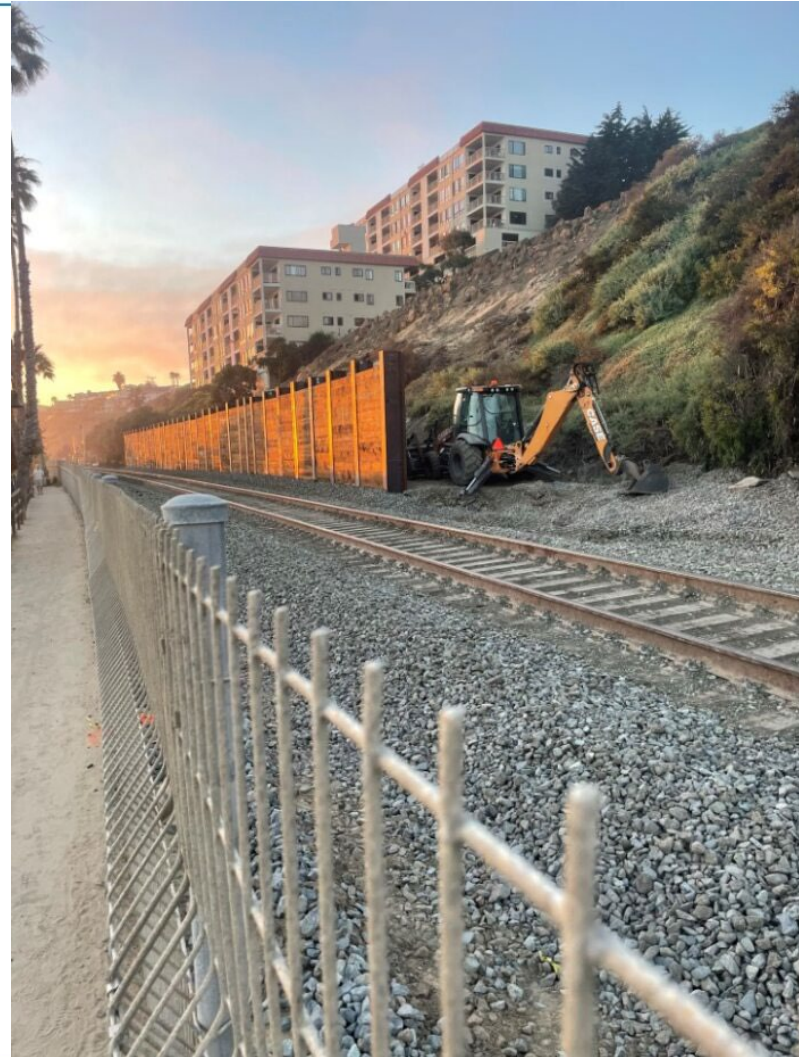
Goals & Objectives for Initial Assessment

- Conduct an Initial Assessment along OCTA's Coastal Railroad Right-of-Way (MP 200 – MP 207.4)
- Identify activities for immediate action
- Builds on previous efforts to maintain railroad operations
- Identify potential solutions and strategies
- Emergent issues, monitoring, and reinforcement areas



Initial Assessment

- Address Owner/Operators concerns regarding imminent issues affecting the railroad
- Focused on protecting rail operations, track infrastructure, and maintaining railroad service
- Identified Areas of Concern
 - Monitoring Areas
 - Potential Reinforcement Areas
- Identify Next Steps



Summary of Monitoring Areas

Area	Location (MP)	Description	Monitoring (Frequency)
1	200.80 - 201.00	Doheny S - Eroding Beach	Riprap condition and beach erosion (Semi-Annually, Post Storm)
2	202.70	Poche Beach South Shore Pedestrian Underpass and outfall at beach	Beach erosion and scour protection around structures (Quarterly)
3	203.65 - 203.70	North Beach - Potential for undermining of riprap	Riprap condition and beach erosion (Semi-Annually, Post Storm)
4	204.00 – 204.30	Mariposa Pedestrian Bridge	Install sensors to monitor potential track-bed movement (Monthly, post storm post-landslide post-earthquake)
5	204.50	Linda Lane - Stable beach but narrow	Riprap condition and beach erosion (Semi-Annually, Post Storm)
6	206.10	Calafia State Beach - upland erosion sand deposits on tracks	Effectiveness of culvert replacement (Post Storm, King Tides)
7	206.70 – 207.25	Cyprus Shore to County Line	Monitor effectiveness of emergency riprap (Semi-Annually, Post Storm)



Summary of Potential Reinforcement Areas

Area	Location (MP)	Description	Potential Solution(s)*
1	203.80 – 203.90	Erosion Hazard deteriorating	Repair/Augment Riprap
2	204.00 – 204.40	Erosion - no beach at high tide and direct wave attack	Stockpile rock for maintenance
3	204.00- 204.50	Geologic - Major seepage from bluff and poor surface drainage, potential for liquefaction and lateral spreading of track-bed	Build subdrain cut-off for groundwater, catchment structure for slope debris surface drainage control
4	206.00 - 206.67	North end of Cyprus Shore - erosion exposing old riprap	Inspect & construct revetment as needed

*OCTA is participating in discussions about a sand replenishment program with the County of Orange and other stakeholders to protect the railroad and other infrastructure. This effort could be considered on a parallel path with the solutions above, to avoid delay of actions that are needed to ensure continual railroad operations.

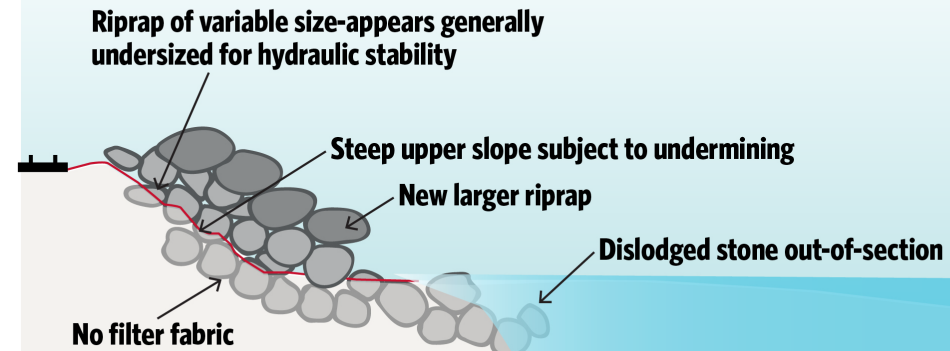
Potential Reinforcement Area 1

Existing Condition: MP 203.80 – 203.90



Possible Solution

Stabilize track by repairing / augmenting existing riprap



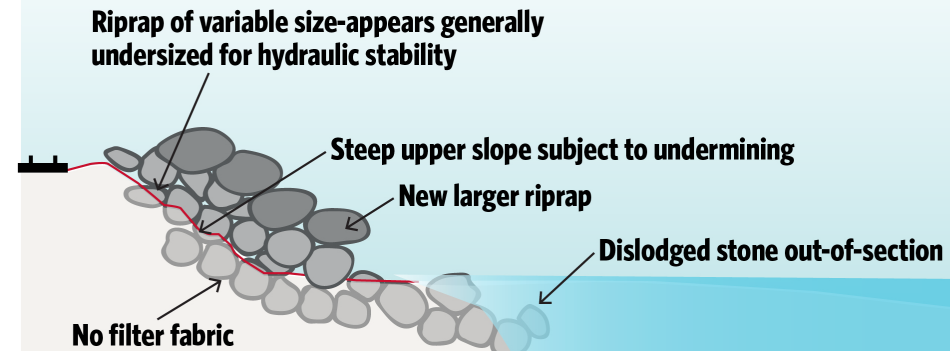
Potential Reinforcement Area 2

Existing Condition: MP 204.00 – 204.40



Possible Solution

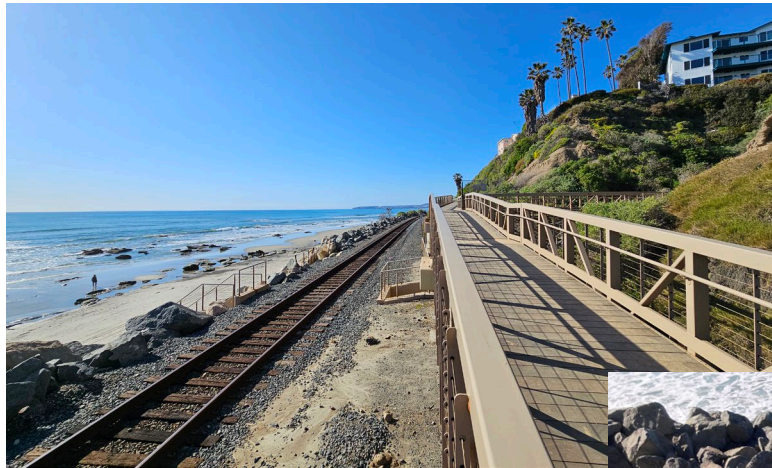
Reinforce riprap section as needed to stabilize track



Potential Reinforcement Area 3

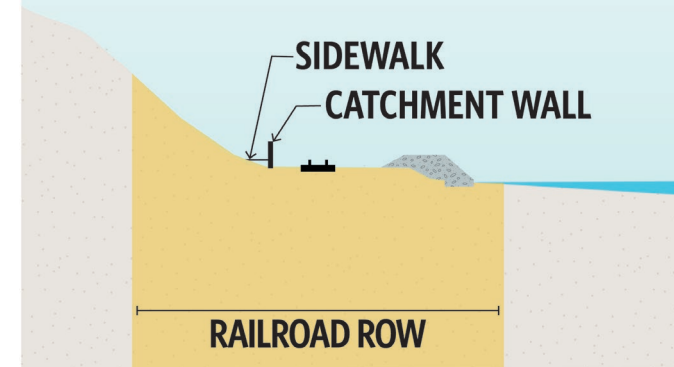
Existing Condition: MP 204.00 – 204.50

Steep bluffs, potential to impact tracks, poor track-side drainage with potential for liquefaction



Possible Solution

CATCHMENT WALL and SIDEWALK



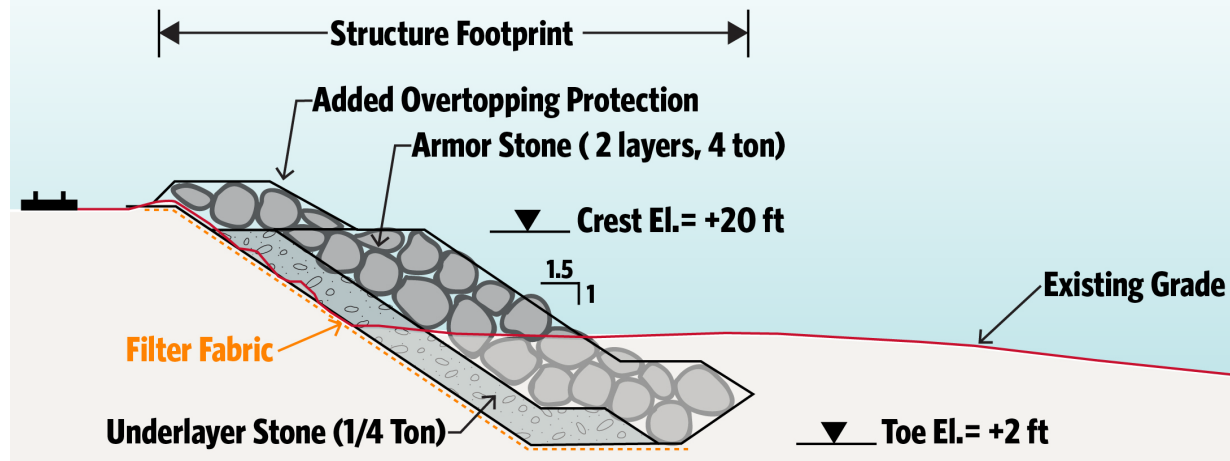
Potential Reinforcement Area 4

Existing Condition:
MP 206.00 – 206.67



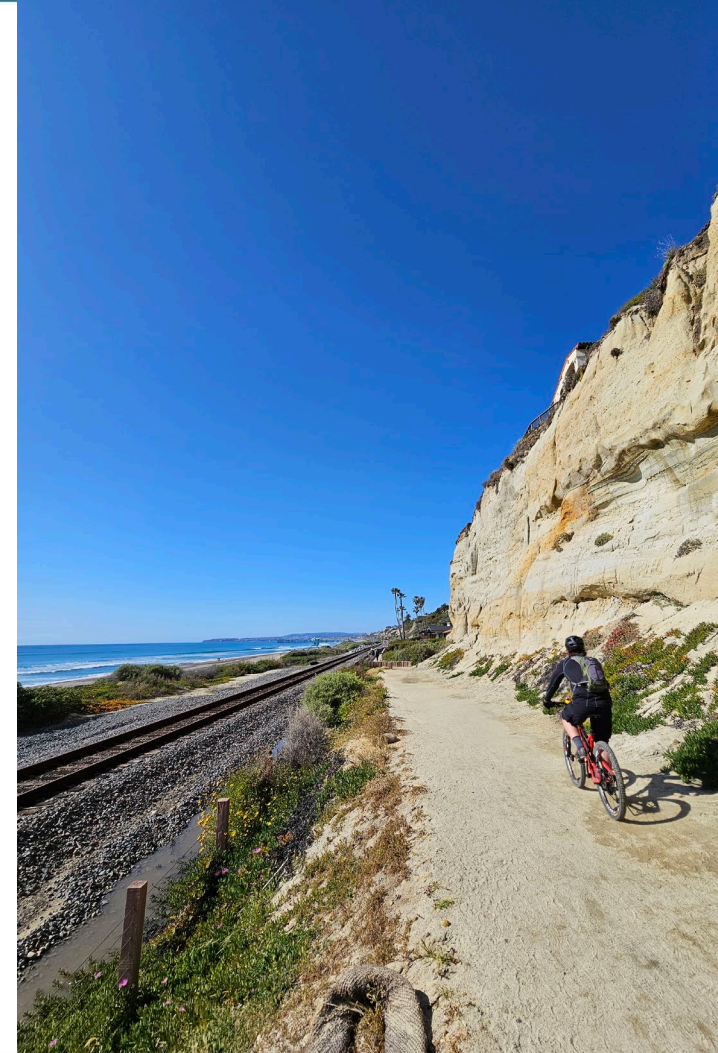
North end of Cyprus Shore Project: Erosion exposing rock and creating a shelf adjacent to tracks where riprap once existed

Possible Solution

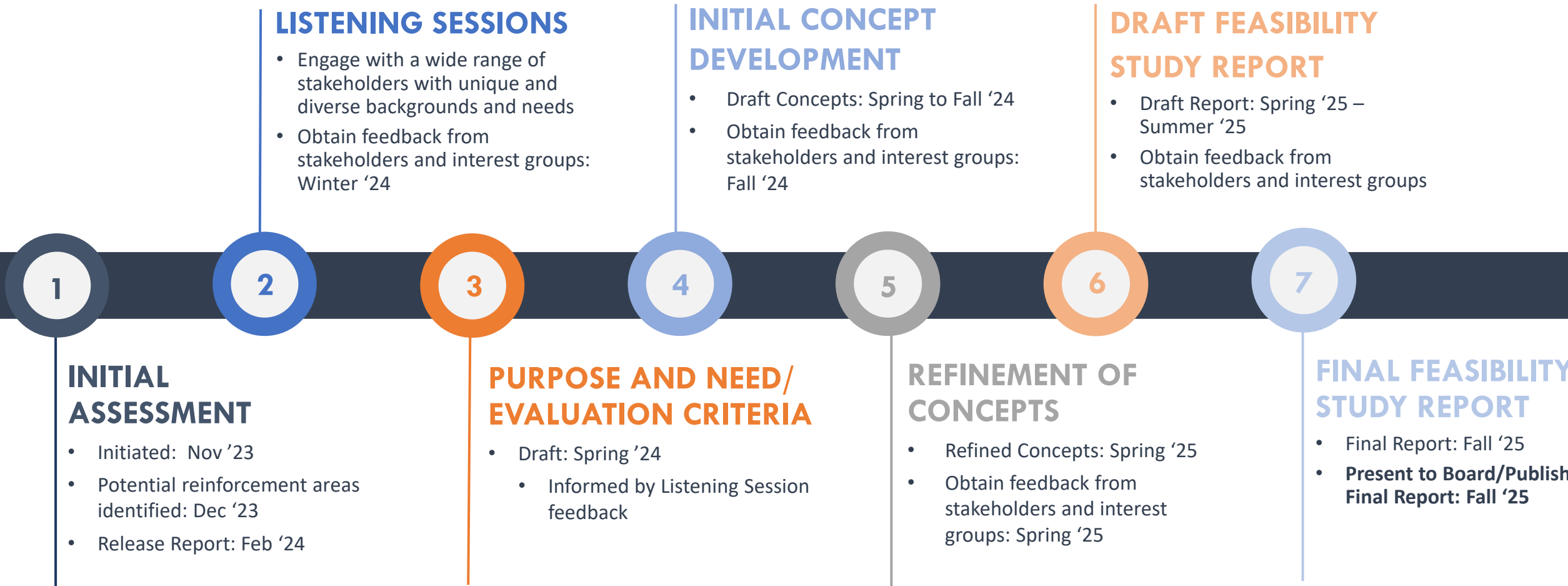


Next Steps for Initial Assessment

- Engagement of Stakeholders (as appropriate)
- Procedures for Emergency Response
- Governance (roles & responsibilities)
 - Develop Implementation Plan
- Regulatory Permitting Strategy
- Stockpiles of Materials needed in emergency



Study Milestones



Study Outreach

- Listening Sessions
- Draft Concept Outreach
- Draft Plan Outreach
- Support community engagement
 - Feedback loop



Listening Session – Goals

- Gather collaborative input from key stakeholders in various public and private sectors
- Listening sessions seek to:
 - Identify key stakeholders
 - Share expectation to maintain in-place the existing coastal rail line and minimize passenger and freight service disruptions for up to 30-years
 - Assess vulnerabilities and issues of concerns
 - Identify potential opportunities to further enhance collaboration
 - Document feedback





Listening Session




Listening Sessions Schedule

Date	Listening Session	Description
01/18/24	Project Development Team (PDT)	
02/14/24	Stakeholder Working Group (SWG)	Federal, state, regional & local interest groups
02/15/24	Major Employers, Key Destinations & Other Business Interests	Business associations & entertainment
03/06/24	Freight & Goods Movement	Business & transportation interest groups
03/12/24	Emergency Responders	Police departments, fire departments, coast guards & harbor patrol
03/20/24	Coastal & Marine Habitat Community-Based Organizations	Environmental groups
04/03/24	Residential Groups	Homeowner associations (HOAs)
04/11/24	General Public	Virtual meeting
05/10/24	Elected Officials Roundtable	Federal, state, regional & local elected offices
05/30/24	General Public	In-person meeting

Stay Connected

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THANK YOU!

