



LOSSAN Rail Corridor Agency
Technical Advisory Committee Meeting
Agenda
Thursday, July 11, 2024 at 2:00 p.m.

550 South Main Street, Orange, California

LOSSAN RAIL CORRIDOR AGENCY

Technical Advisory Committee - Membership Roster

Written public comments may also be submitted by emailing them to lossantac@octa.net, and must be sent 90 minutes prior to the start time of the meeting. If you wish to comment on a specific agenda item, please identify the item number in your email. All public comments that are timely received will be part of the public record and distributed to the TAC Committee.

If you have any questions regarding this new format or any upcoming meeting plans, please contact Michelle Alonso, LOSSAN Executive Assistant, at 714-560-5415 or malonso@octa.net.



TECHNICAL ADVISORY COMMITTEE MEETING AGENDA

Call to Order

1. Public Comments

At this time, members of the public may address the Board of Directors regarding any items within the subject matter jurisdiction of the Board of Directors, but no action may be taken on off-agenda items unless authorized by law. Comments shall be limited to three minutes per speaker, unless different time limits are set by the Chairman subject to the approval of the Board of Directors.

Consent Calendar (Items XX through XX)

All items on the Consent Calendar are to be approved in one motion unless a Committee Member or a member of the public requests separate action or discussion on a specific item.

2. Approval of Minutes

James D. Campbell

Discussion Items

3. LOSSAN Rail Corridor Coastal Resiliency Update

James D. Campbell

4. Upcoming Draft Board Agenda Items

Jason Jewell

5. Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency Update

6. Technical Advisory Committee Members' Report



TECHNICAL ADVISORY COMMITTEE MEETING AGENDA

7. Adjournment

The next regularly scheduled meeting of this Committee will be held at 10:00 a.m. on DAY, MONTH, 2022, at the Orange County Transportation Authority, Board Room, 550 South Main Street, Orange, California.



Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency **TECHNICAL ADVISORY COMMITTEE**

JUNE 6, 2024, TAC MEETING MINUTES

The Los Angeles – San Diego – San Luis Obispo (LOSSAN) Rail Corridor Agency (Agency) Technical Advisory Committee (TAC) met on June 6, 2024, at the Los Angeles County Metropolitan Transportation Authority, Henry Huntington Room.

Committee members in attendance:

Lance Okuno, SLOCOG
Aaron Bonfilio, SBCAG
Jay Fuhrman, LA Metro
Katie Persons, NCTD
Sheldon Peterson, RCTC
Peter Casellini, SANDAG
Aubrey Smith, VCTC
Megan Taylor, OCTA
Kelly Hart, OCTA (Alternate)

Welcome and Introductions

Mr. Kristopher Ryan, LOSSAN Chief Finance Officer, opened the June 6, 2024, LOSSAN Agency TAC meeting and welcomed the TAC members to Los Angeles County Metropolitan Transportation Authority, in the Henry Huntington Room.

1. Public Comments

CONSENT CALENDAR

2. Approval of Minutes

James Campbell

3. Fiscal Year 2023-24 Second Quarter Los Angeles – San Diego – San Luis Obispo Rail Corridor Trends

Kristopher Ryan

4. Fiscal Year 2024 Third Quarter Corridor Trends Report

Kristopher Ryan

5. Fiscal Year 2024 Second Quarter On-Time Performance Analysis

Kristopher Ryan

Mr. Sheldon Peterson (RCTC) motioned to approve the item, seconded by Mr. Jay Fuhrman (Metro). The Committee approved the Consent items.

DISCUSSION CALENDAR

6. Fiscal Year 2024 Third Quarter On-Time Performance Analysis

Mr. Kristopher Ryan (LOSSAN) provided a presentation on the Pacific Surfliner On-Time performance analysis third quarter of federal fiscal year 2023-24, which included the monthly average customer on-time performance, delays, and improvements.

A discussion ensued regarding certain trains and service. There was no further discussion.

7. Pacific Surfliner Marketing Update

Ms. Puja Thomas-Patel (LOSSAN) presented the marketing update, which includes the performance summary, marketing updates, upcoming campaigns, influence partnerships, and Operation Safe Surfs.

A discussion ensued regarding certain projects and service. There was no further discussion.

8. Pacific Surfliner Summer Schedule Update

Mr. James Campbell (LOSSAN) provided a verbal presentation on the summer schedule, which included two additional roundtrips beginning July 20th through Labor Day and the X games schedule.

A few questions ensued on the schedules. There was no further discussion.

9. Upcoming Draft Board Agenda Items

Mr. Campbell (LOSSAN) provided a brief overview of the agenda items for the June 17, 2024, LOSSAN Agency Board of Directors' meeting.

A few questions ensued on the agenda items. There was no further discussion.

10. Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency Update

An update was provided on current ridership and X Games car wrap updates.

A question ensued on the train capacities. There was no further discussion.

11. Technical Advisory Committee Members' Report

Mr. Peter Casellini (SANDAG) provided an update on the environmental effort on the San Diego LOSSAN Rail Realignment project.

Ms. Megan Taylor (OCTA) mentioned the Angels Express service.

Mr. Aubrey Smith (VCTC) mentioned the upcoming X Games in Ventura.

Mr. Lance Okuno (SLOCOG) mentioned SLOCOG is organizing an event at the Central Coast Layover and Maintenance Facility on August 22nd for the Coast Rail Coordinating Council Policy Group, with further details to be provided in July.

12. Adjournment

The next regularly scheduled meeting of this Committee is scheduled to be held on:

Thursday, July 11, 2024

SANDAG

Conference Room 8B

401 B Street, Suite 800, San Diego, CA 92101

2:00pm – 3:30pm



LOSSAN Rail Corridor Coastal Resiliency Update

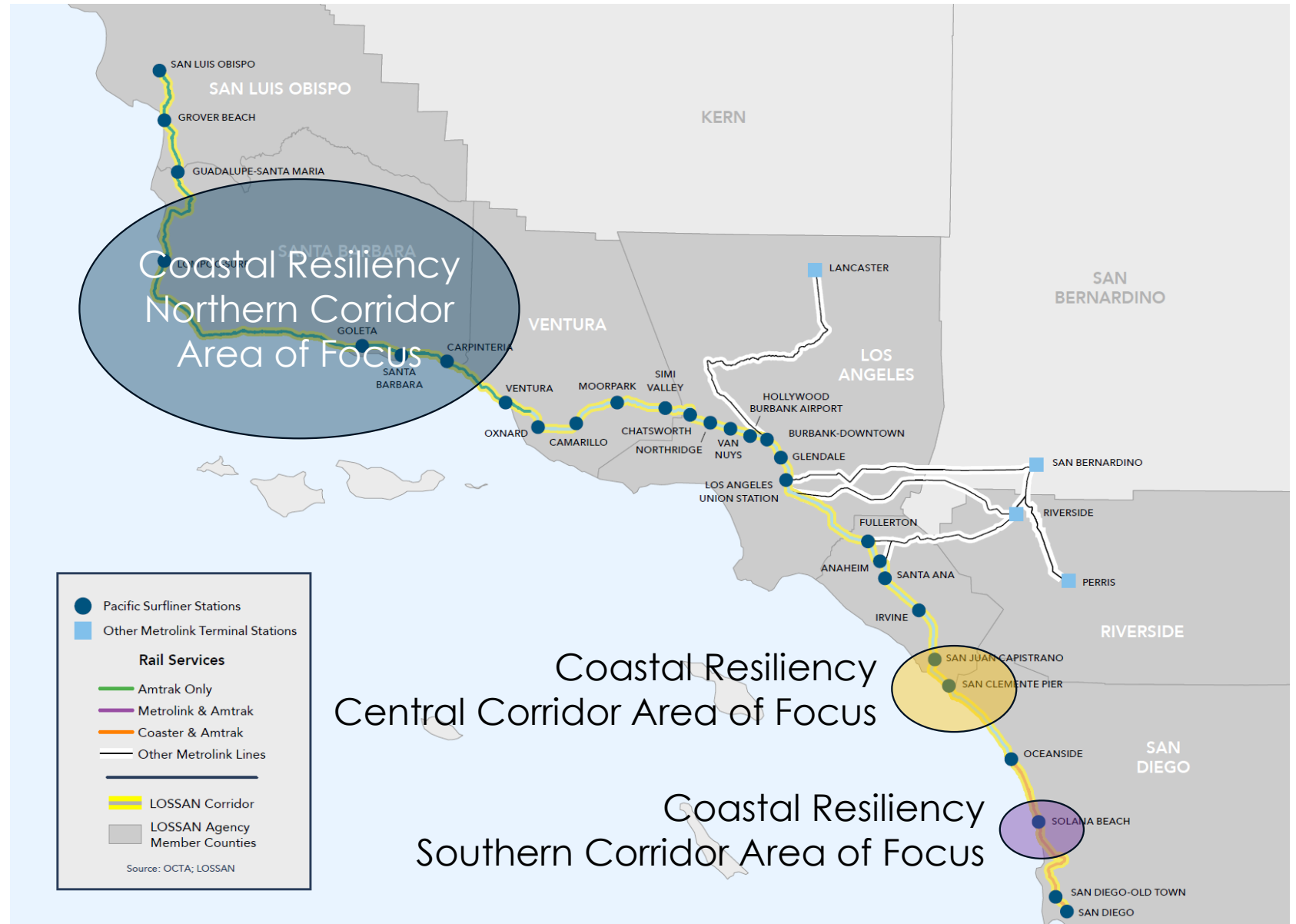
LOSSAN Technical Advisory Committee | July 11, 2024



Coastal Resiliency

There are Coastal Resiliency challenges along the entire LOSSAN Corridor, broken into 3 key areas of focus.

- **Northern Corridor Area of Focus:** LOSSAN is working with Union Pacific Railroad on a long-term strategy to stabilize the railroad.
- **Central Corridor Area of Focus:** A study is underway to define short- and mid-term solutions to address resiliency issues through San Clemente.
- **Southern Corridor Area of Focus:** SANDAG is performing short term repairs through Del Mar and beginning the environmental phase on long term track relocation.

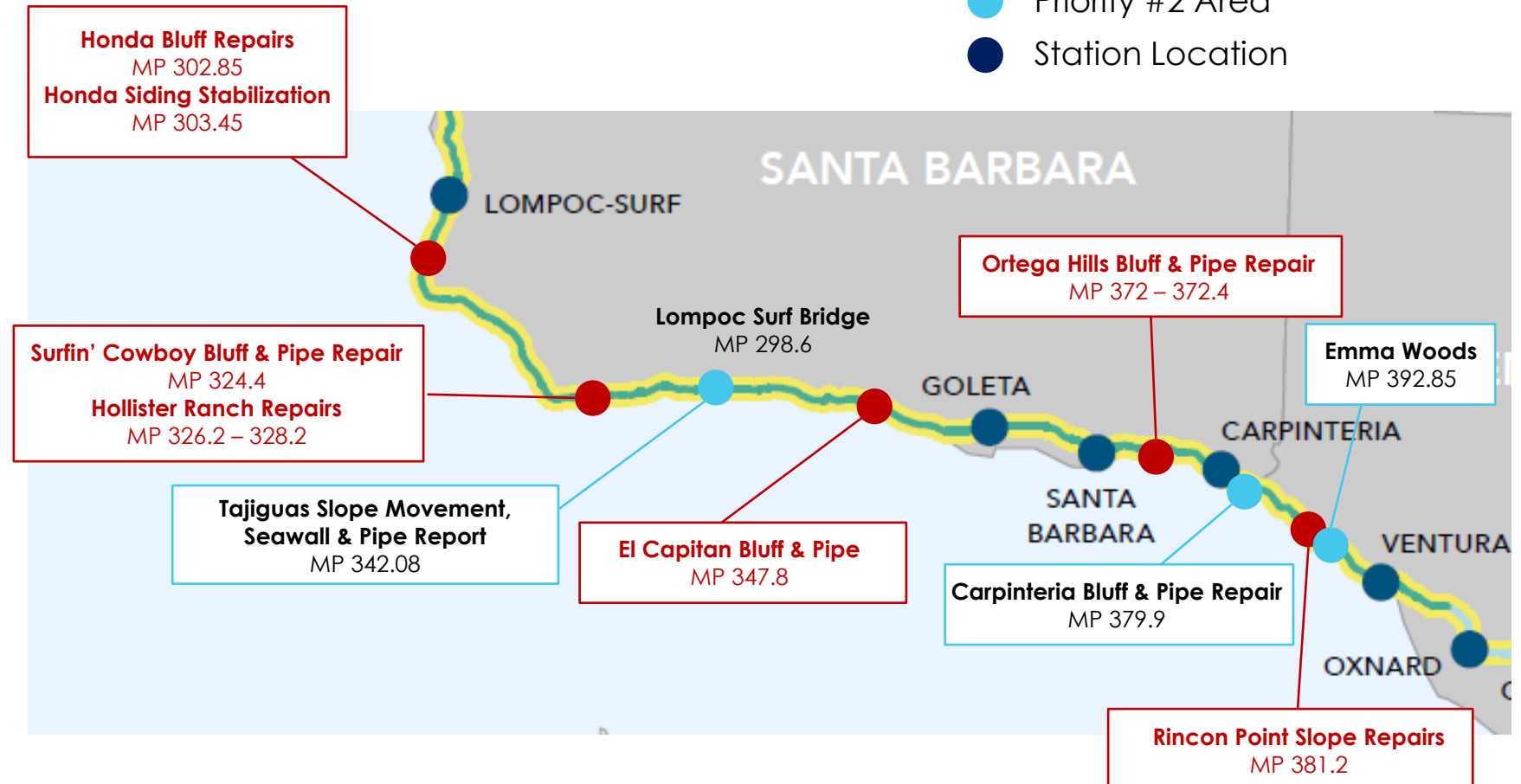


Coastal Resiliency Program

Northern Corridor
Area of Focus

LEGEND

- Priority #1 Area
- Priority #2 Area
- Station Location



Honda Bluff Repairs and Potential Track Relocation (Milepost 302.85-303.45)

Existing Conditions

- Shoreline erosion in sandstone formation creating cavities in lower portion of bluffs
- Failure of steep sandy slopes

Near Term Solution/On going Work

- Install slope failure monitors.
- Daily monitoring

Longer Term Solution

- Relocate tracks inland
- Protect shoreline ~1500ft of shoreline
- Fill voids in sea caves
- May need VSFB, USACE, CCC, and State Lands permits



Surfin' Cowboy (Milepost 324.4) & Hollister Ranch Repairs (Milepost 326.2-328.2)

Existing Conditions

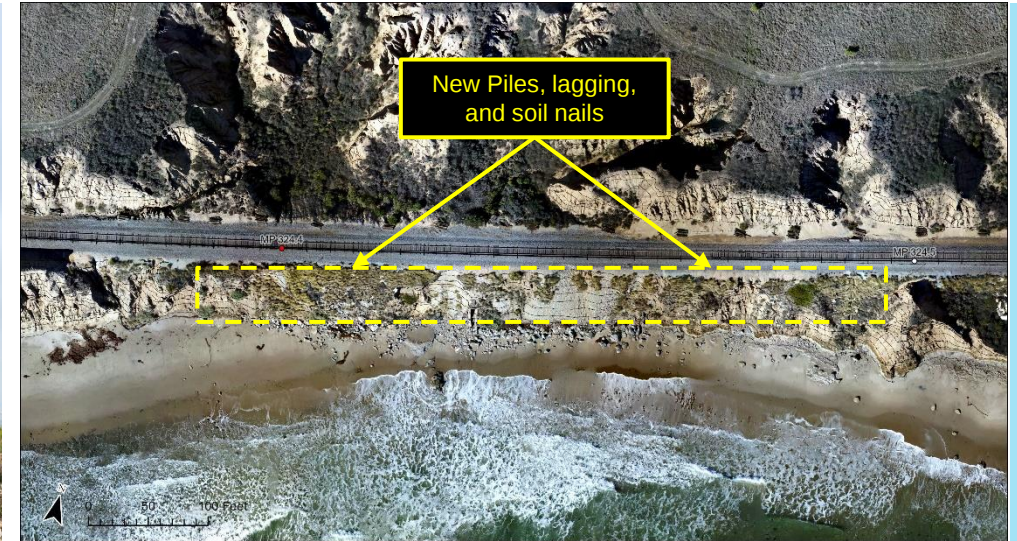
- Significant Bluff Erosion
- Loosing Slope within 8ft of Rail
- Erosion Moving Laterally
- Failure of Historic Seawall

Near Term Solution/On going Work

- Short to intermediate term repair includes construction of a soldier pile wall high on the bluff face (at Sacate)
- **Work underway as of this presentation**

Longer Term Solution

- Extend soldier pile and install tie-backs under the tracks.
- Replace drainage pipes
- Repair seawalls, where damaged
- Seawall work will need USACE, RWQCB, and CCC permits



El Capitan Bluff (Milepost 347.8)

Existing Conditions

- Scour under wooden soldier pile wall
- Pipe broken above seawall
- Slope eroding away approximately 6' to 8' away from track

Near Term Solution/On going Work

- Fill void with rip-rap

Longer Term Solution

- Replace pipe and headwall (built in 1916).
- Replace wood wall with concrete soldier pile wall with tie-back anchors. Fill scour hole with rock, or gabion mattress
- Improve drainage



Ortega Hill (Milepost 372-372.4)

Existing Conditions

- Bluff erosion below tracks due to older failing storm drains
- Slope erosion above tracks due to surface water is causing erosion of shoulder and causing a loss of ballast
- Existing void under bridge creating additional instability

Near Term Solution/ Ongoing Work

- Removal of blockage under tracks causing additional erosion on hill side

Longer Term Solution

- Replacement of corrugated metal pipes with proper headwalls and anchors to toe of slope.
- Add drilled pier to secure in slope
- Stabilize bluff face with soil netting.
- Fill in the void under bridge concrete floor



Rincon Point (Milepost 381.2)

Existing Conditions

- Significant areas of hill erosion above the track area
- Tracks covered in sand after runoff from hills

Near Term Solution/ Ongoing Work

- Dig drainage trench to better control water flow at base of the slope
- Vacuum track bed to remove sand and sediment

Proposed Repair Summary

- Install storm water pipes from the farm field at top to bottom of slope
- May need easements to perform work
- Placement of rocks, revetment to shore-up bottom of slope



Central Corridor Area of Focus

Coastal Resiliency Central Corridor Area of Focus

Coastal Resiliency
Southern Corridor Area of Focus



OCTA's Role in the LOSSAN Corridor

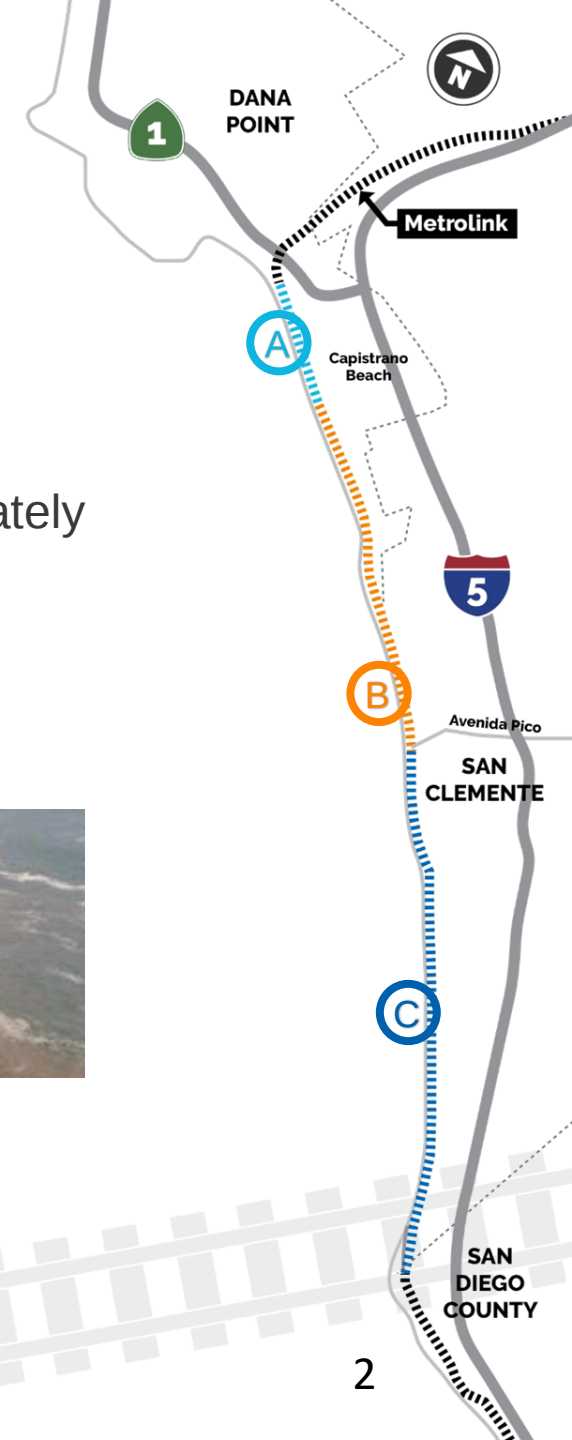
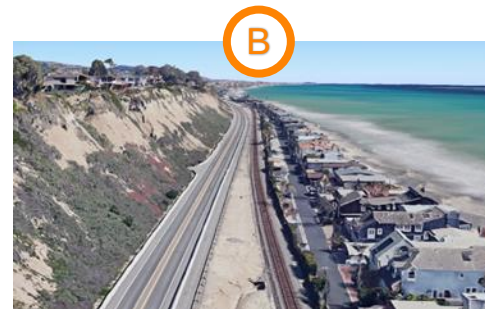
- Owns 40+ miles of the corridor, including seven miles of critical coastal track in south Orange County
- Responsibility to minimize disruptions to rail service
- Serves as the managing agency for the LOSSAN Rail Corridor Agency
- Member of the Southern California Regional Rail Authority (Metrolink)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

COASTAL RAIL RESILIENCY STUDY

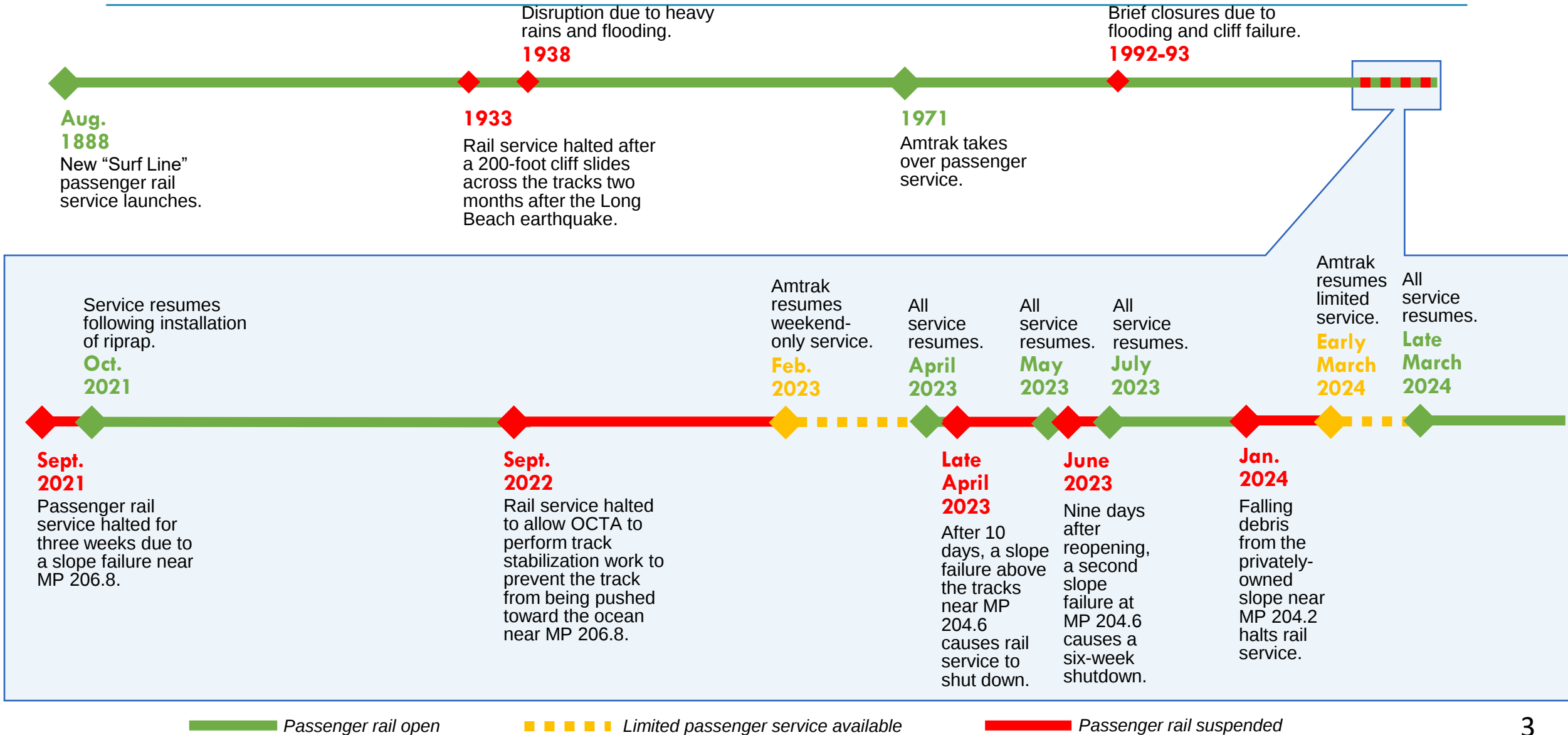
OCTA's Beachside Rail Line

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



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

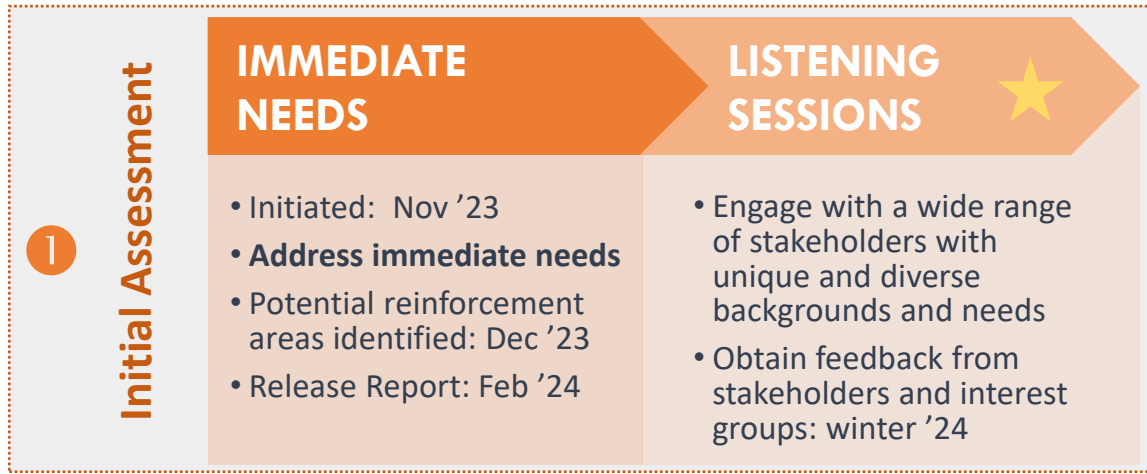
- Study underway
- Initial Assessment to address the most vulnerable areas through
- Develop options to protect 7 miles of coastal rail infrastructure at various sea levels
- Gain an understanding of climate effects on coastal rail infrastructure
- Identify potential solutions, including sand replenishment 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

Short- and Mid-Term Study Milestones

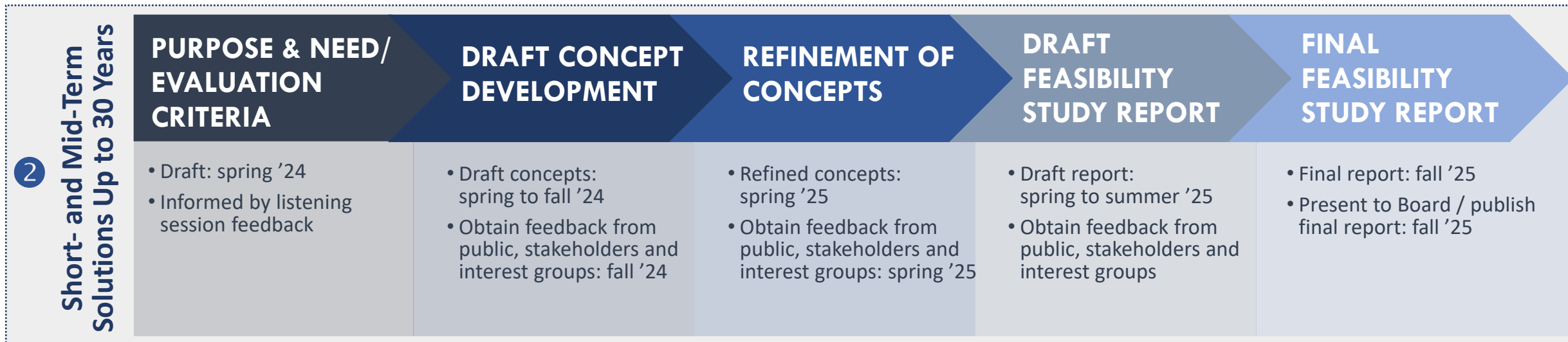


1 Coastal Rail Resiliency Study is to address the most vulnerable areas through the initial assessment.

2 The study then looks at protecting the rail line in place for up to 30 years.

These activities are occurring simultaneously.

1 - Step 1 2 - Step 2 ★ - Current Phase Board – Board of Directors



Initial Assessment Purpose and Need

- Four reinforcement areas were identified in December 2023
- Potential solutions need to be in place or substantially underway by fall 2024 ahead of next storm season
- Potential solutions evaluated at a conceptual level considering different materials, performance, costs, methods, and schedule

Area	Location (MP)	Challenge	Updated Potential Solutions
1	203.80 – 203.90	Ongoing deterioration of existing riprap protection	Rock (repair existing riprap) and sand nourishment
2	204.00 – 204.40	Erosion - no beach at high tide and direct wave attack damaging existing riprap protection	Rock (repair existing riprap) and sand nourishment
3*	204.00 – 204.50	Steep bluffs with high potential for failure that could impact the rail infrastructure	Catchment wall
4	206.00 - 206.67	Near San Clemente State Beach - erosion exposing areas of limited to no riprap protection	Engineered rock revetment and sand nourishment

*The inland slope experienced a failure in late January 2024 within a portion of Area 3, resulting in a passenger rail shutdown for approximately two months



MP – Mile Post

Reinforcement Areas 1 & 2: Potential Solution

Existing Condition:

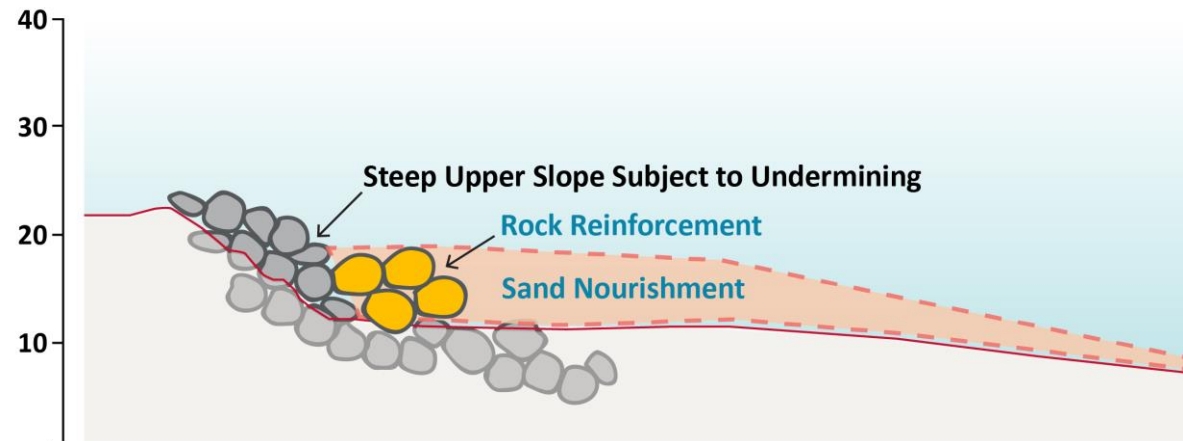


MP 203.80 – 203.90 and 204.00 – 204.40

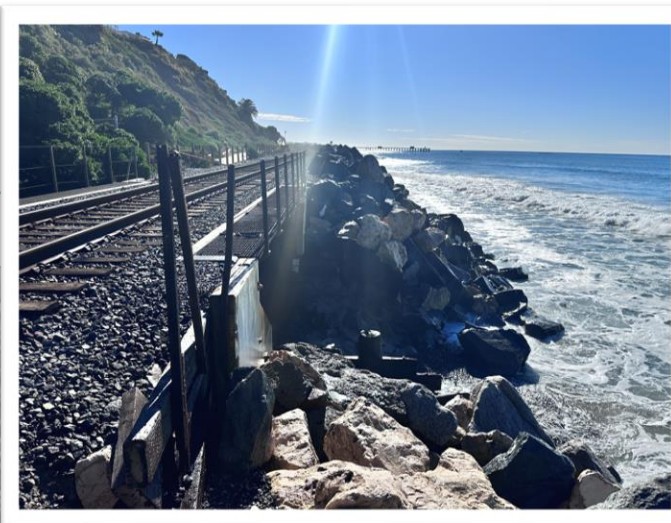
Potential Solution **UPDATED**:

Rock (repair existing riprap) and sand nourishment

- Place 2-ton to 6-ton rock gradation
- Minimize rock encroachment on the beach
- Sand nourishment to add approximately 50-ft-wide beach fronting rock
- Prioritize eroded and over-steepened areas
- Locations based on LiDAR survey and on-the-ground evaluation



Reinforcement Areas 1 & 2: Location **UPDATED**



MP 203.80

Area 1

MP 204.40

Area 2

ROCK REINFORCEMENT

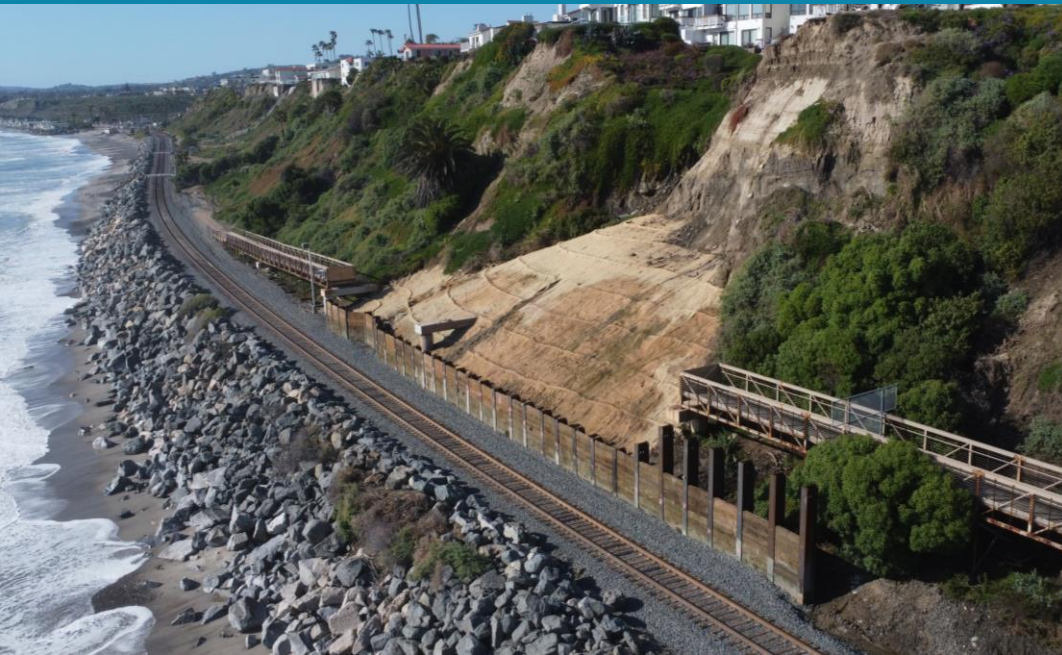
- Approximately 7,000 tons of 2-ton to 6-ton rocks

SAND NOURISHMENT

- Sand nourishment to create approximately 50-foot-wide beach between MP 203.80 and 204.40
- Approximately 240,000 cubic yards of sand needed

Reinforcement Area 3: Potential Solution

Existing Condition:



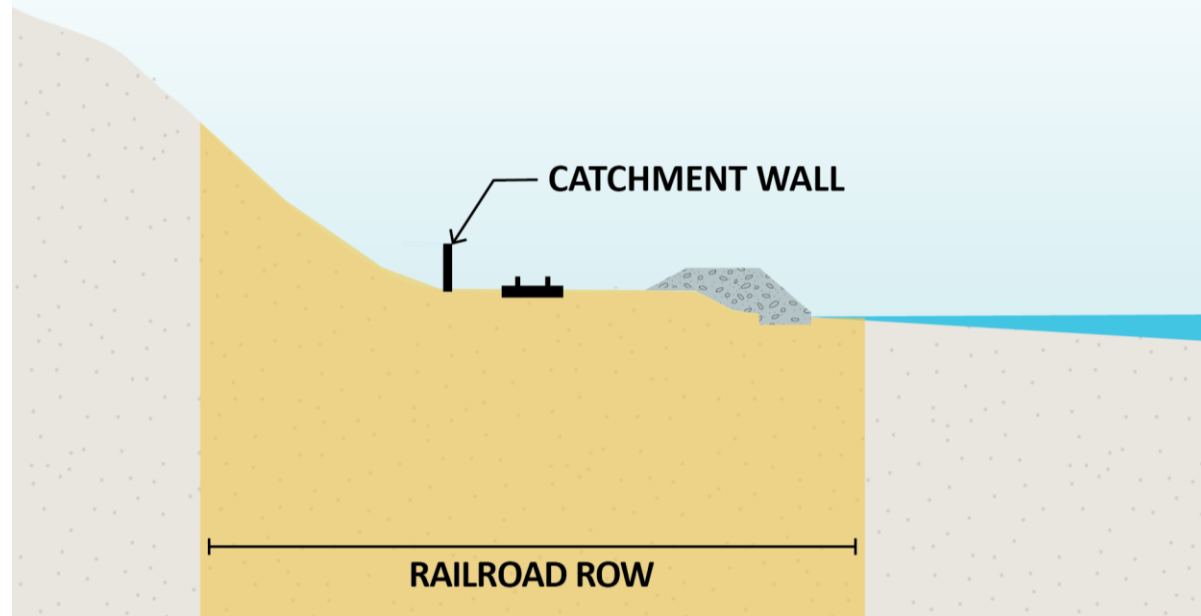
MP 204.00 – 204.50

Steep bluffs with a history of failure and high potential for additional movement that could impact the railroad infrastructure.

ROW - Right-of-Way

Potential Solution - **UPDATED**:

CATCHMENT WALL and TRAIL ACCESS*



*Extend existing catchment wall. OCTA will work with the City of San Clemente to maintain and restore trail access.

Reinforcement Area 4: Potential Solution

Existing Condition:



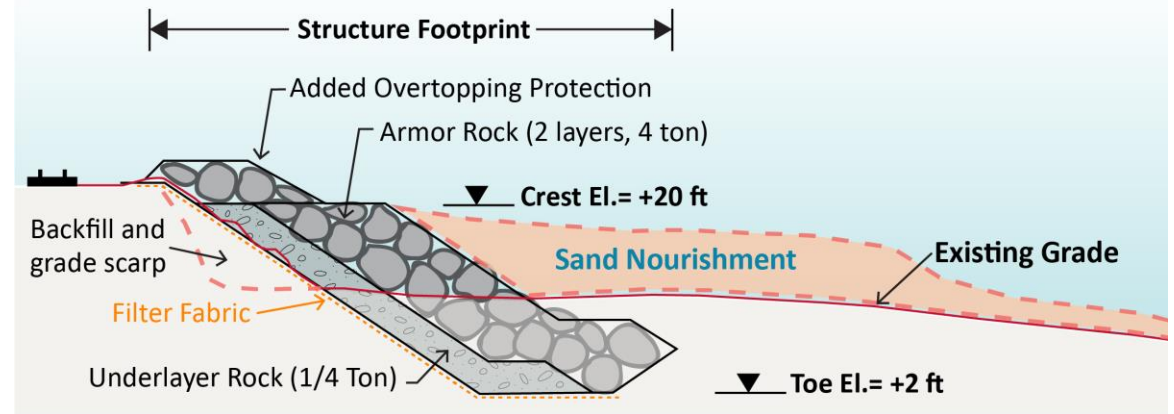
MP 206.00 - 206.67

Near San Clemente State Beach - erosion exposing areas of limited to no riprap protection.

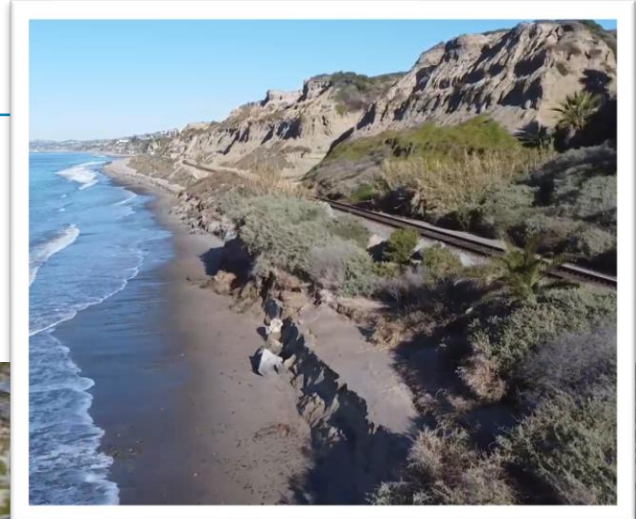
Potential Solution **UPDATED:**

Engineered rock revetment and sand nourishment

- Place geotextile filter fabric
- Place approximately 1/4-ton rock gradation for underlayer
- Place approximately 4-ton rock gradation
- Create approximately 80 to 100-foot-wide beach through sand nourishment fronting engineered rock revetment
- Locations based on LiDAR survey and on-the-ground evaluation



Reinforcement Area 4: Location **UPDATED**



Area 4: MP 206.00 - 206.67

ROCK REINFORCEMENT

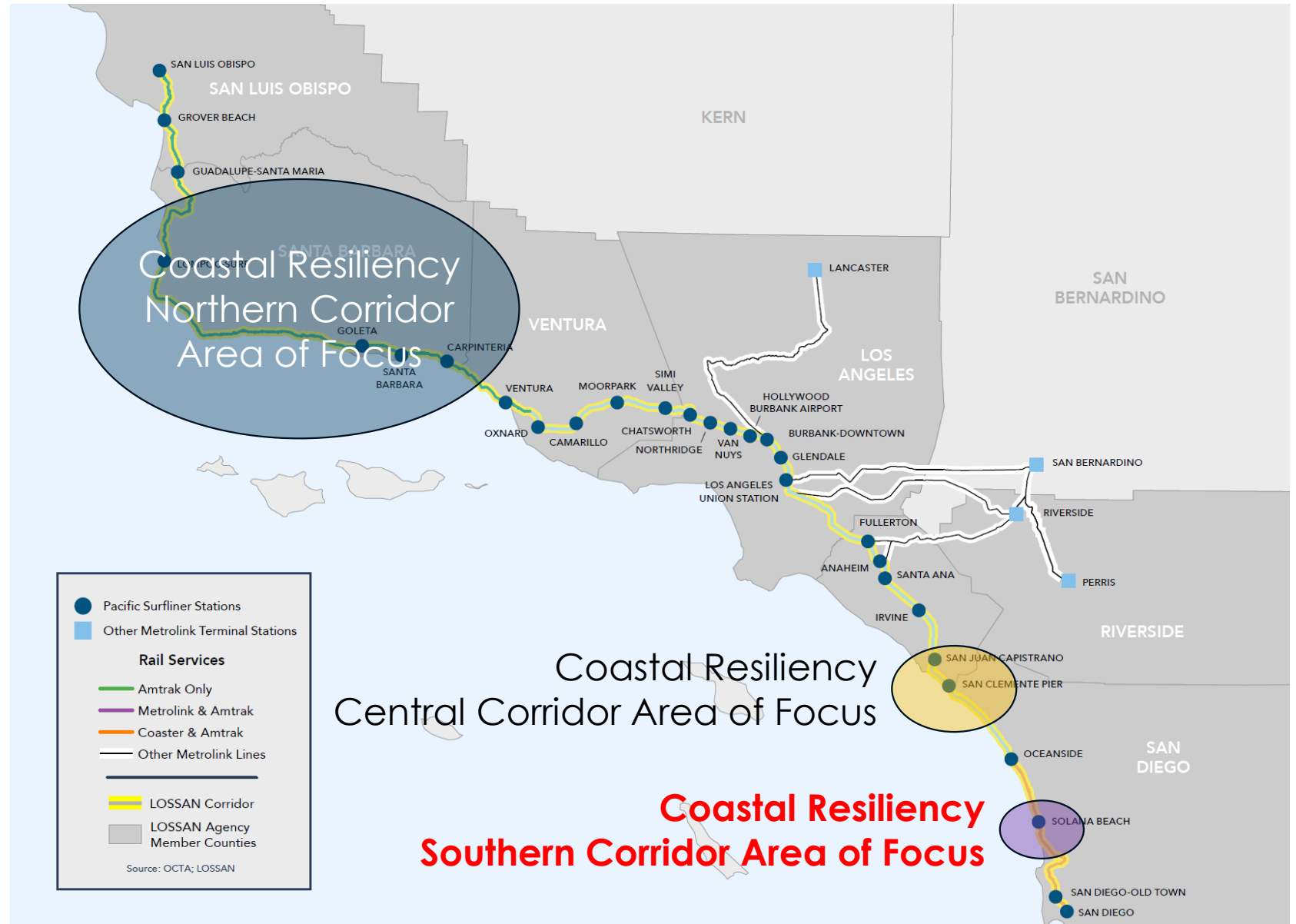
- Approximately 60,000 to 77,000 tons of rock

SAND NOURISHMENT

- Sand nourishment to create approximately 80 to 100-foot-wide beach between MP 206.00 and 206.67
- Approximately 240,000 to 300,000 cubic yards of sand

Coastal Resiliency Program

Southern Corridor
Area of Focus



Projects in Development

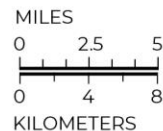
60-Mile San Diego Segment

LOSSAN Rail Corridor Project Overview

May 2024

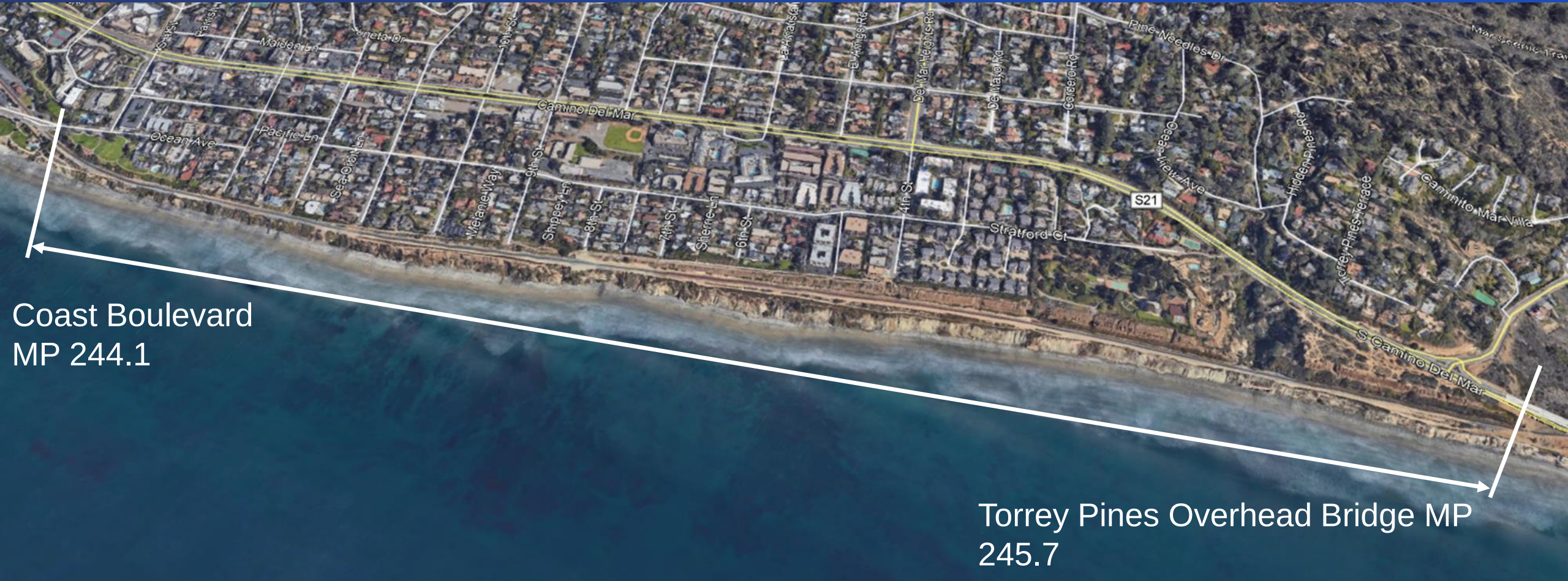
Project Phase

- Planning
- Design and Permitting
- Ready for Construction
- Construction



Del Mar Bluff Stabilization Phase 5

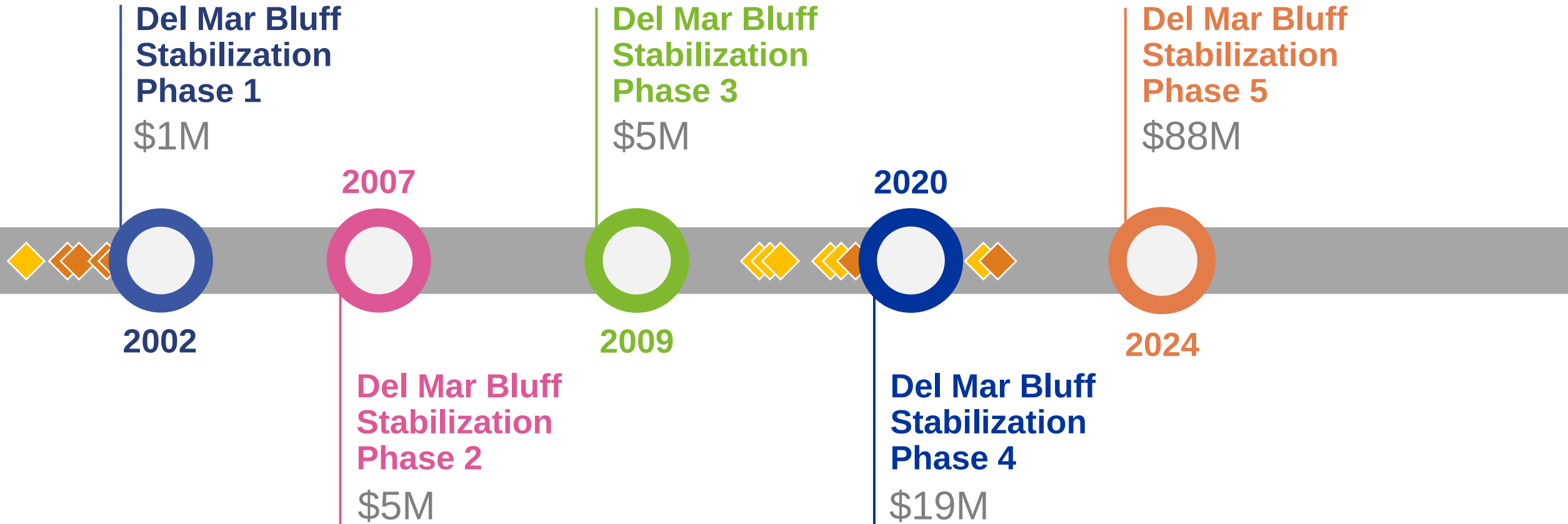
Del Mar Bluff Stabilization Project Area



Coast Boulevard
MP 244.1

Torrey Pines Overhead Bridge MP
245.7

Bluff Stabilization Projects Over Time



◆ Bluff landslide impacting rail service
1996, 2018, 2019, 2021

◆ Emergency Repairs
1998, 2001, 2019, 2021

Del Mar Bluffs Stabilization Phase 5

1. Bluff Retreat

Measured and re-evaluated retreat between 1995 and 2020

2. Global Slope Stability

Static stability against sliding
Seismic stability against sliding

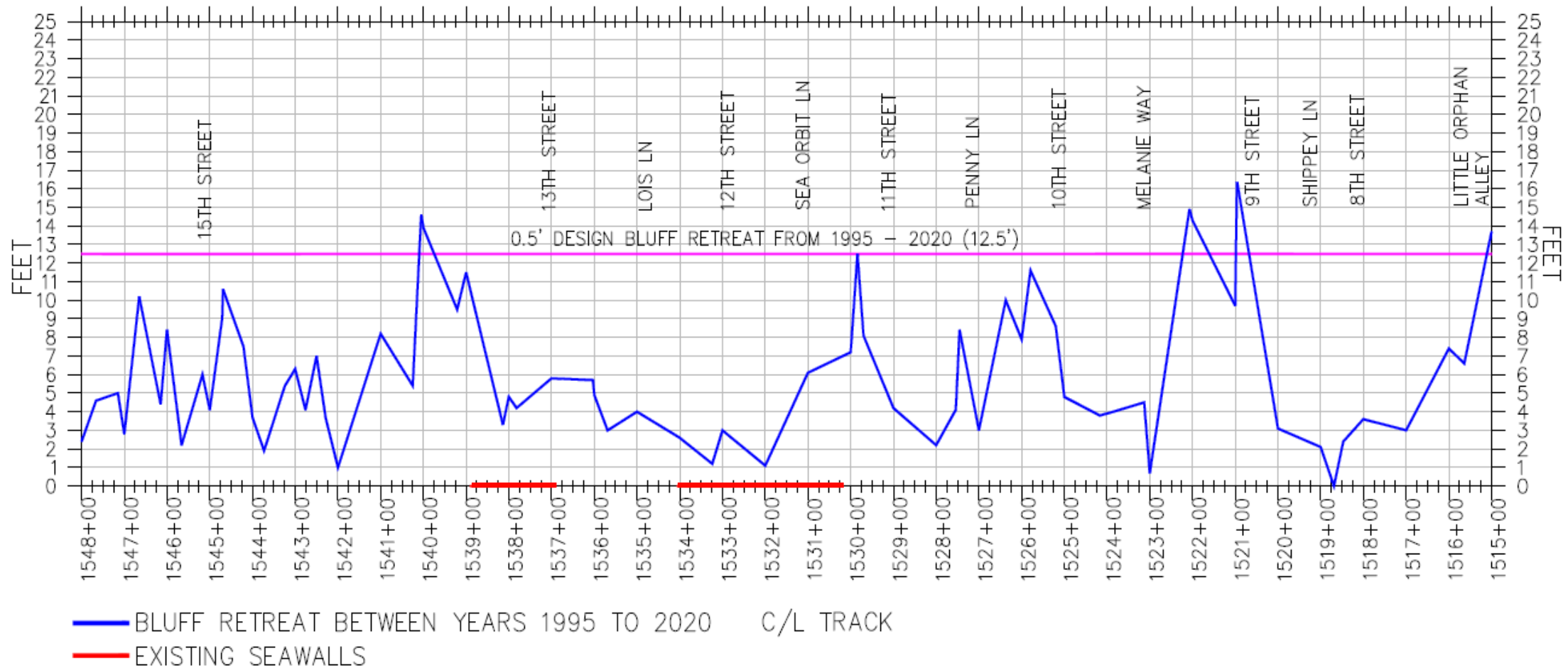
3. Drainage

Reviewed capacity of all drainage systems



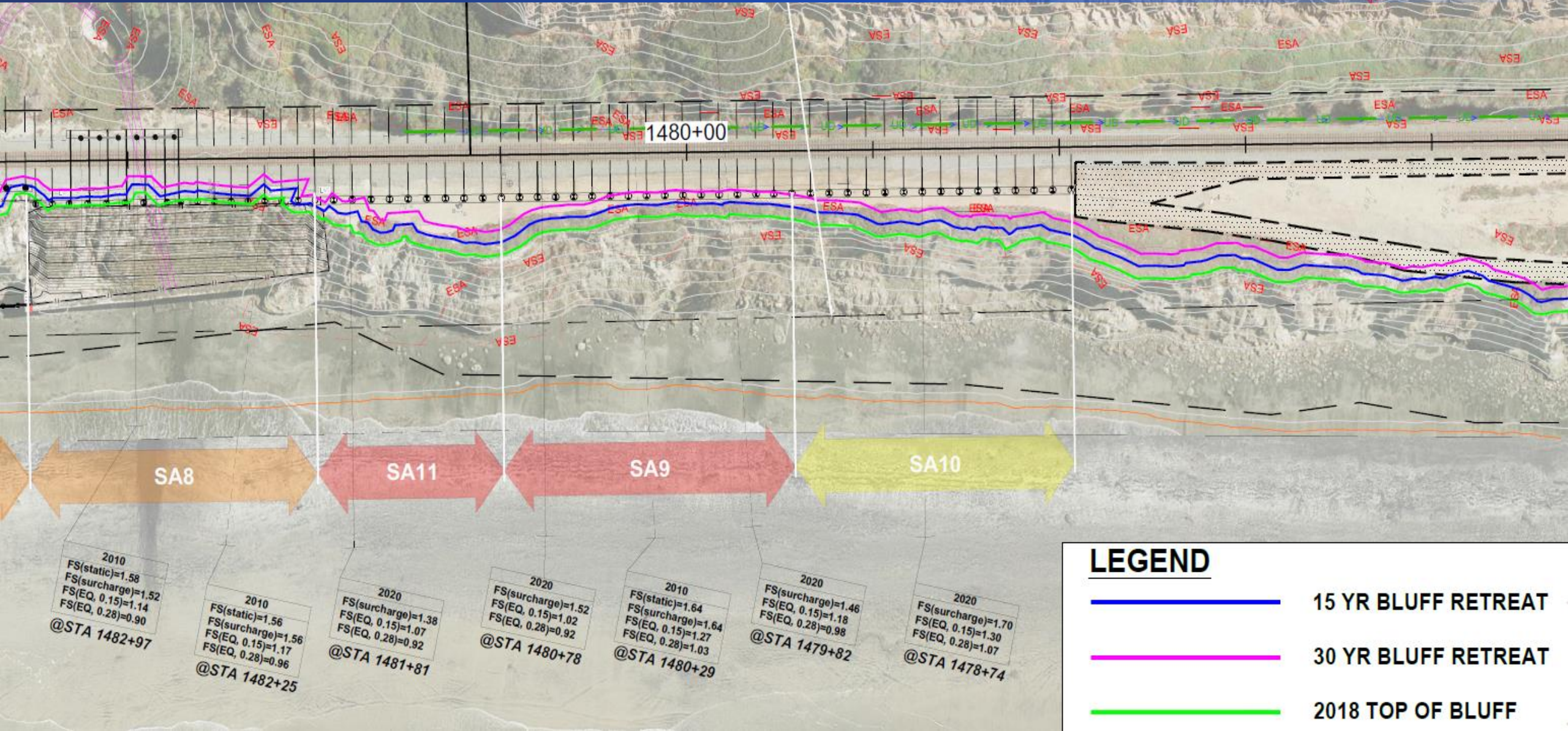
Del Mar Bluffs

Bluff Retreat 1995 to 2020 Between 15th and 8th Street up to 6" per year



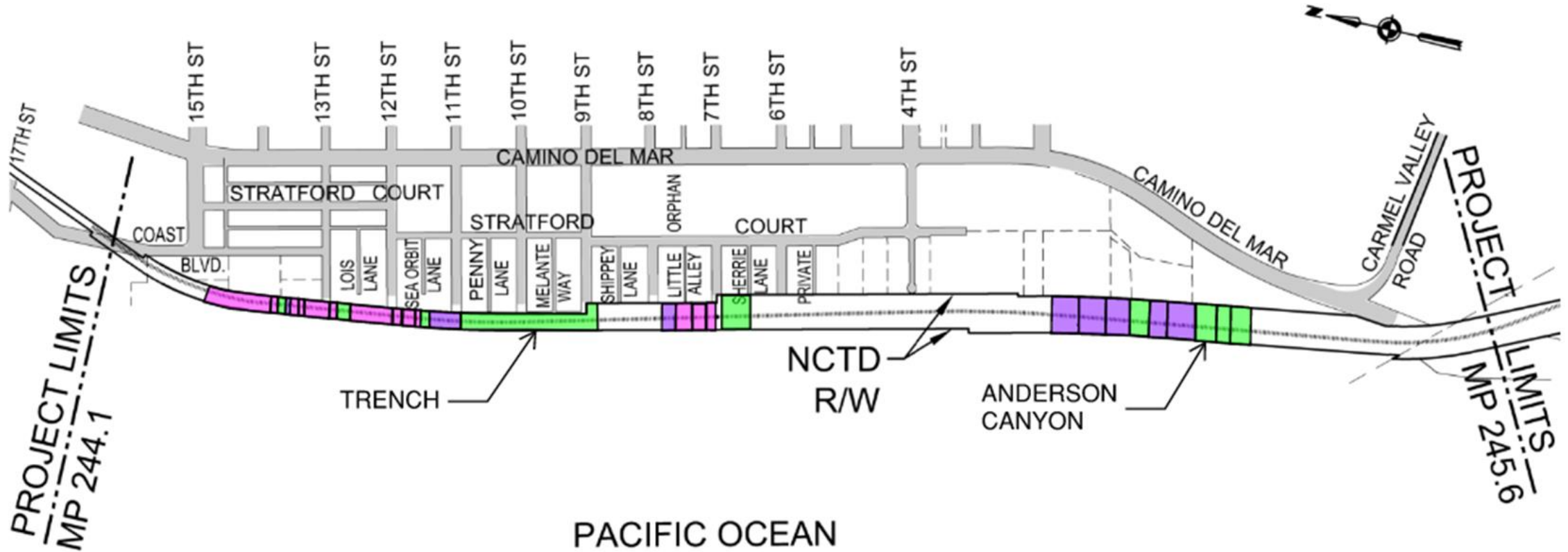
Del Mar Bluffs

Projected Bluff Retreat South of Anderson Canyon



Soldier Piles

Existing and Planned

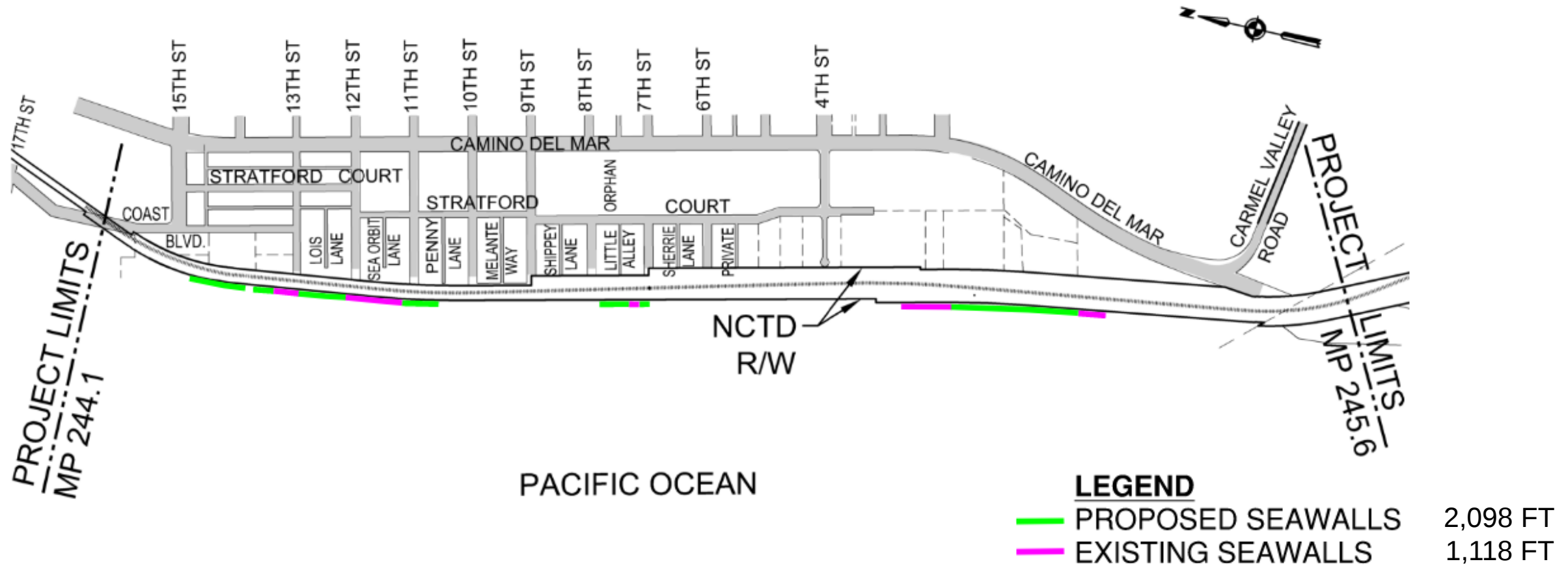


LEGEND

- RETROFIT AREA - GRADE BEAM ONLY
- RETROFIT AREA - GRADE BEAM & TIEBACKS
- NEW STABILIZATION AREA

Bluff Toe Protection

Existing and Planned

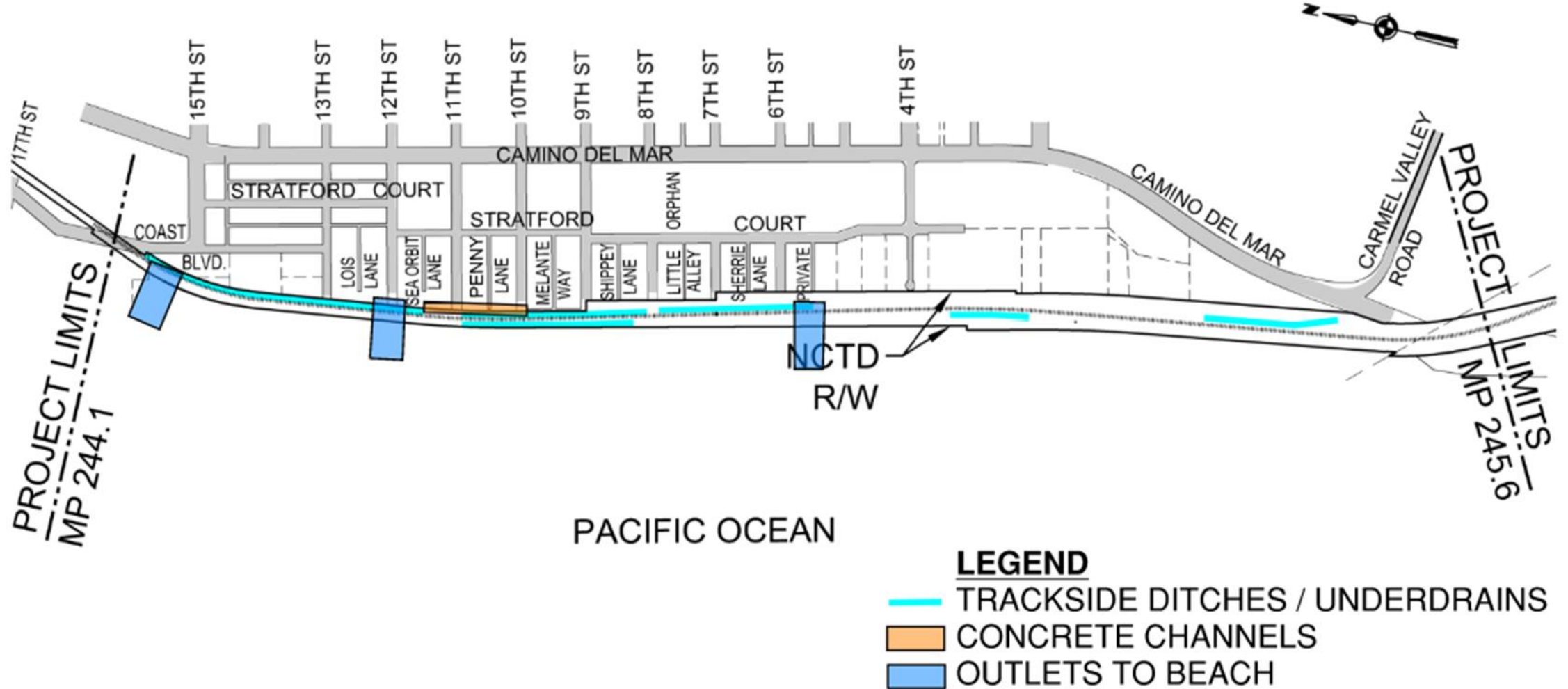


Bluff Toe Protection piles below 11th Street

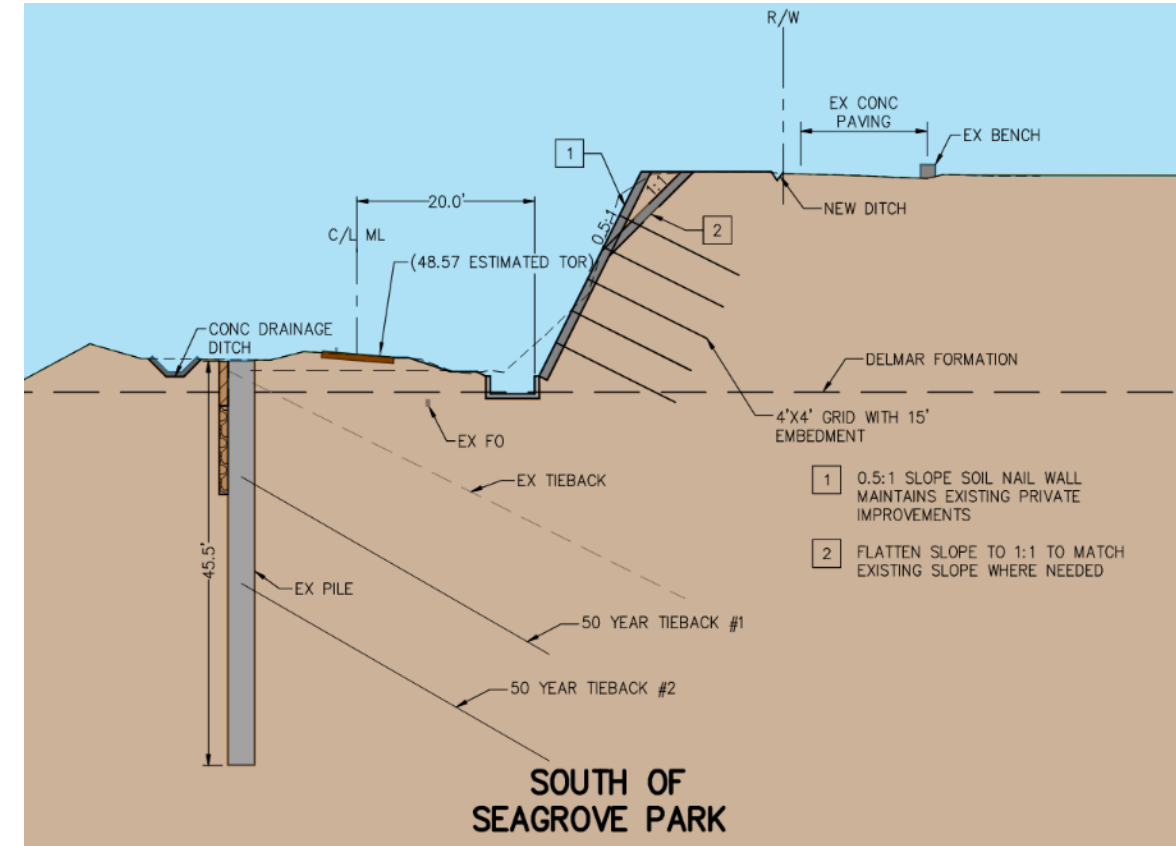


Drainage Improvements

Planned



New Trackside Drain – 15th Street



Aerial Photo Seagrove Park at 15th Street Del Mar



San Diego LOSSAN Rail Realignment

Project Goals

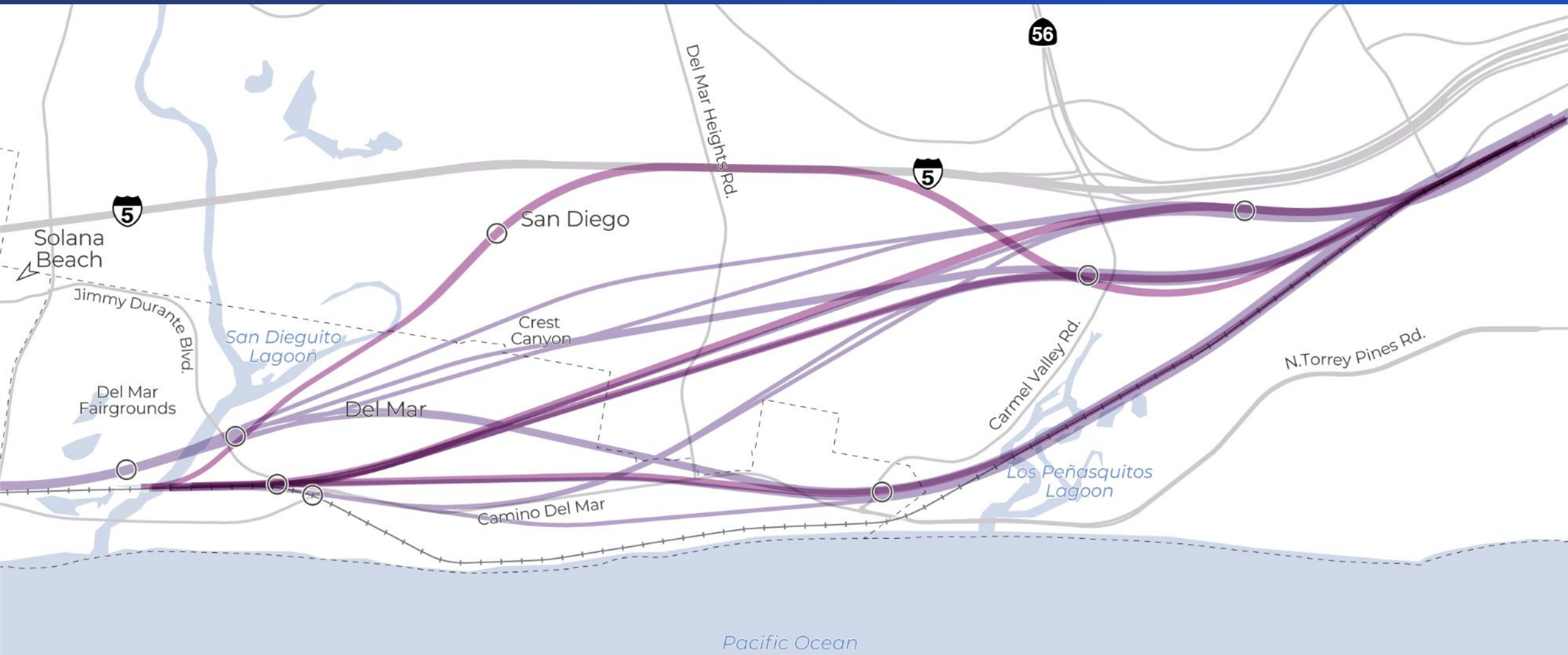


1. Relocate from Bluffs
2. Minimize Community Impacts

3. Improve Travel Times
 - Straighten Curves
 - Double Track

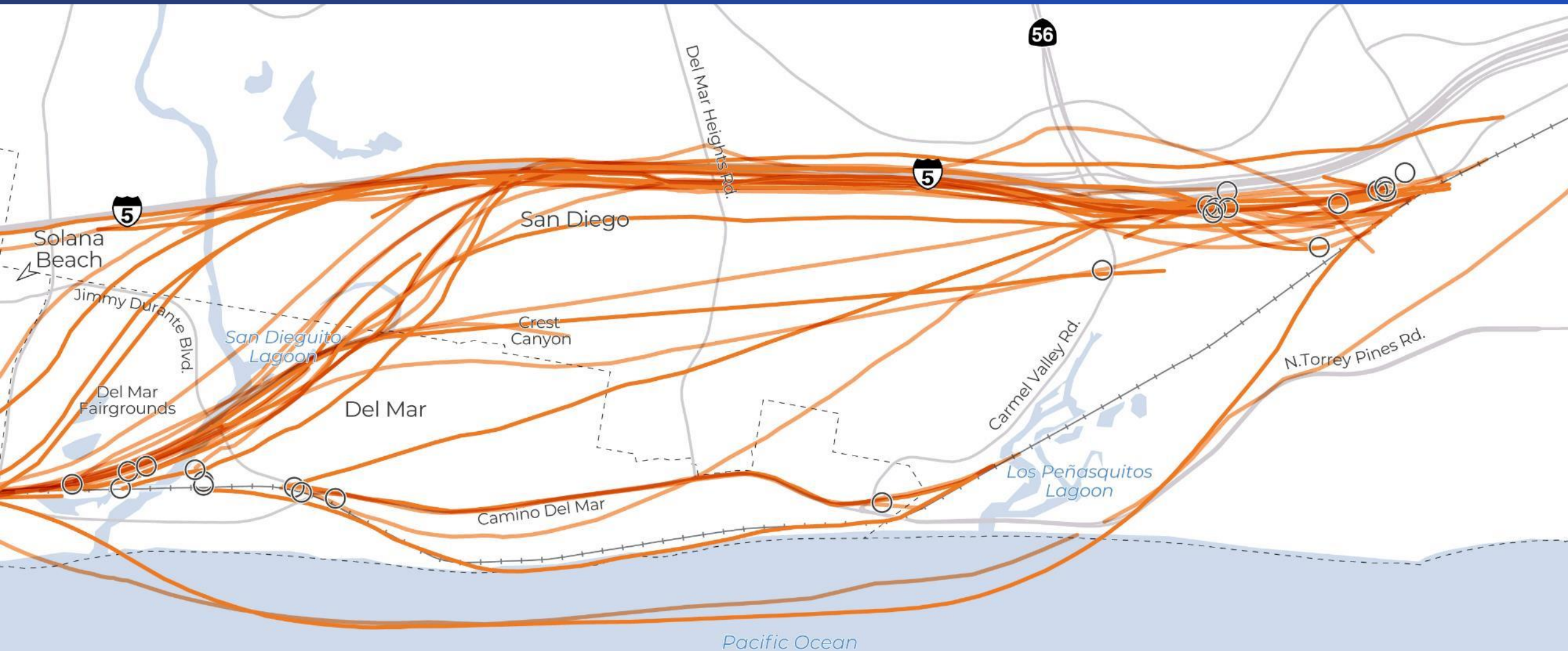
4. Coastal Access & Safety
5. Preserve Wetlands

Preliminary Alignments Studied



DISCLAIMER: No decision has been made on the selection of the proposed project or project alternatives. SANDAG is continuing to evaluate concepts that may be selected as project alternatives for analysis that will be studied during the formal environmental review process under the California Environmental Quality Act and the National Environmental Policy Act. All elements of the conceptual designs are preliminary and should not be construed as an announcement of the intent to acquire any private property. The images are intended to facilitate early public engagement on project concepts.

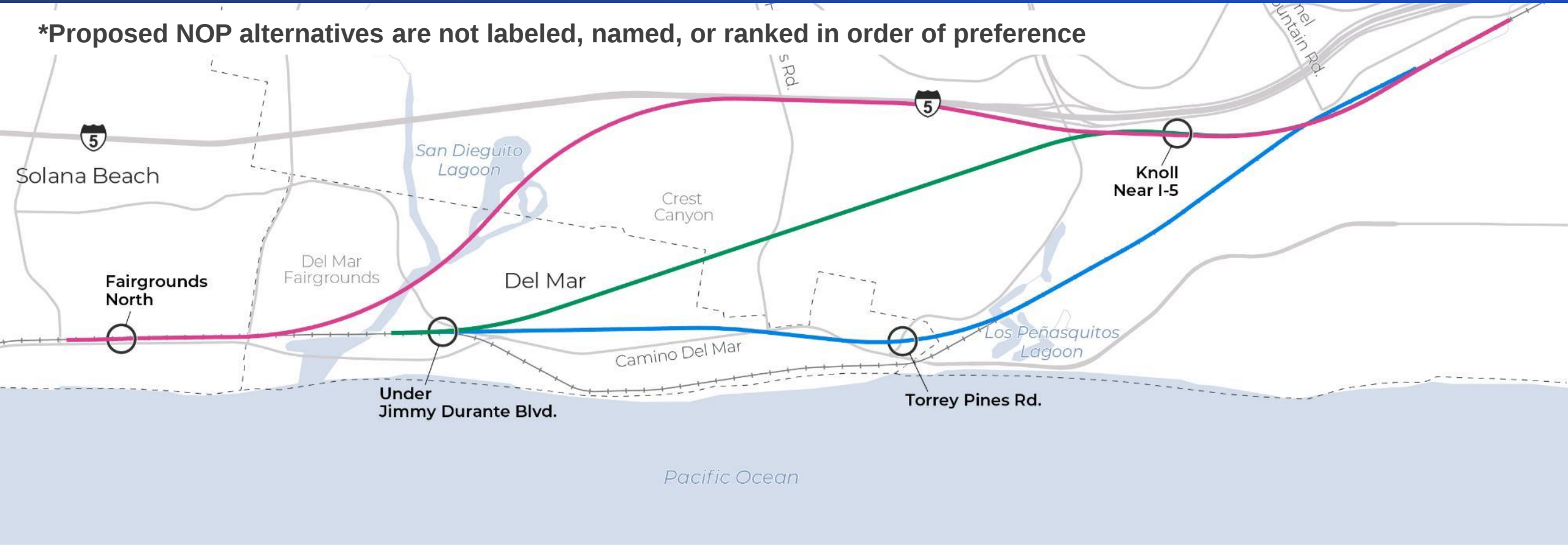
Preliminary Alignments from Public Input



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Proposed NOP Alternatives*

*Proposed NOP alternatives are not labeled, named, or ranked in order of preference

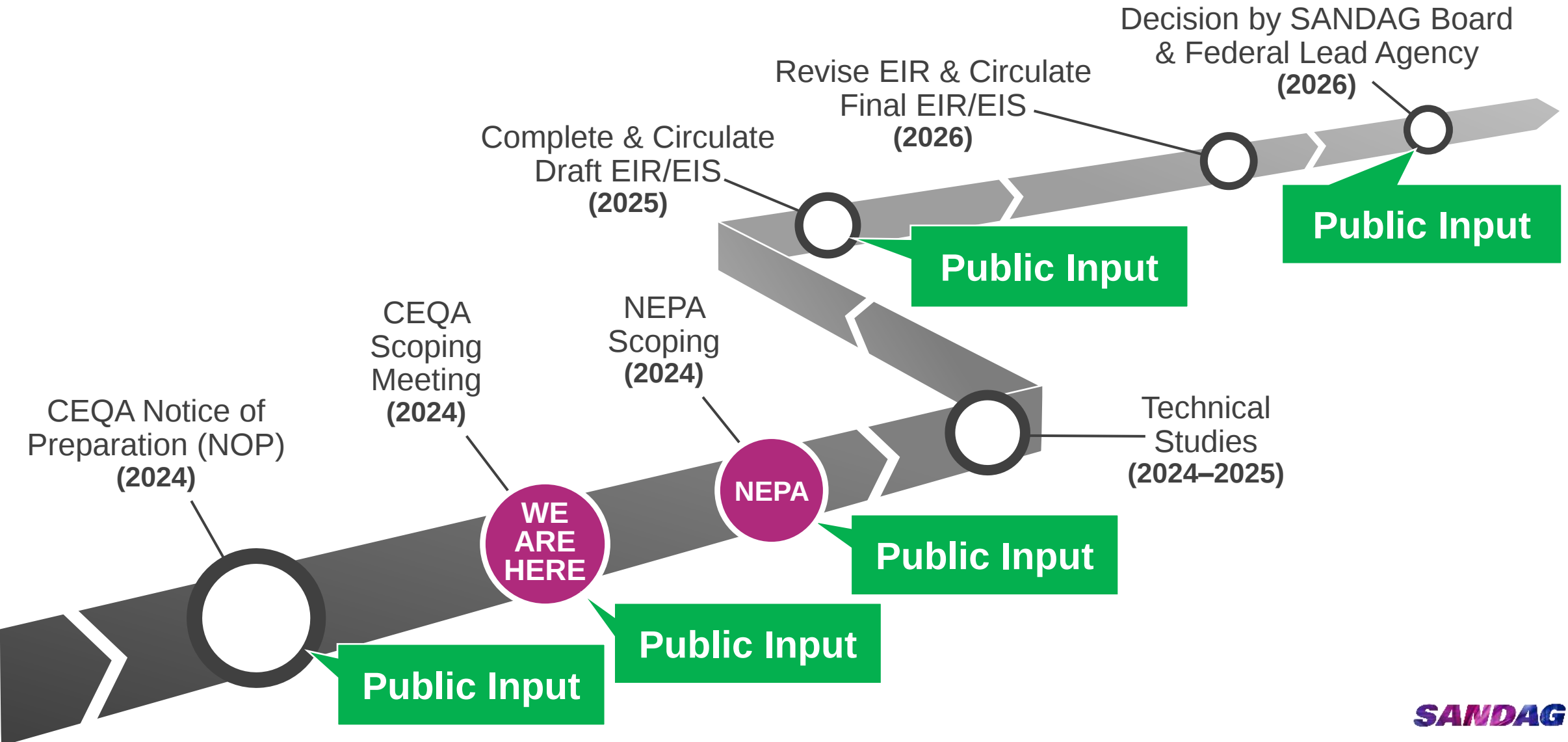


San Diego LOSSAN Rail Realignment – Combined Proposed NOP Alternatives*

- Alternative A
- Alternative B
- Alternative C
- Portal Location
- Existing LOSSAN Corridor Track Alignment
- Municipal Boundary

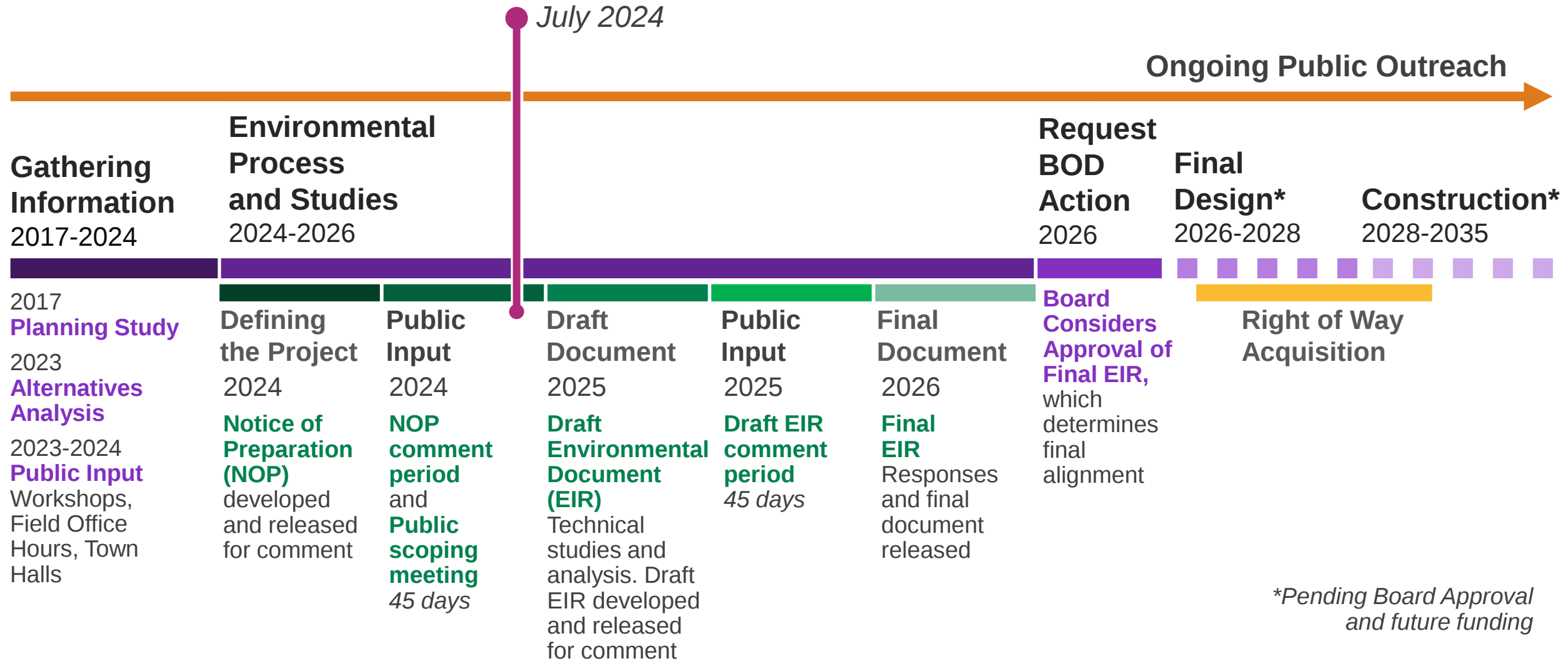
Environmental Process

(CEQA/NEPA)



Project Timeline

Subject to Change



**Pending Board Approval and future funding*

Coastal Resiliency Program

Stakeholder
Engagement

A corridor the length of LOSSAN requires extensive engagement to coordinate the plans and implement the solutions presented to address coastal resiliency

LOSSAN Agency Staff regularly engage with:

- Member Agency Governmental Relation Staff
- State and National Elected Officials
- Board Members
- Host Railroad and Right-of-Way Owner Technical Staff

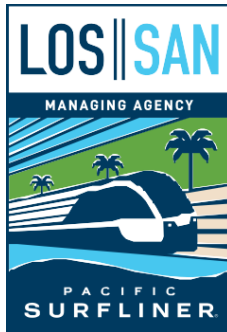
Coastal Resiliency Program

Statewide and
Regional
Engagement

Coastal Resiliency strategies and solutions have been discussed through a variety of working groups and activities:

- CA Senate Subcommittee on LOSSAN Corridor Resiliency Hearings
- LOSSAN Regional Rail Working Group
- LOSSAN Corridor Executive Leadership Working Group
- LOSSAN Regional Rail Technical Working Group
- San Diego LOSSAN Rail Realignment Project Development Team
- OCTA Coastal Rail Resiliency Study Project Development Team
- Bi-Weekly Coordination Meetings with Union Pacific
- Hi-Rail Inspections with Union Pacific

QUESTIONS?



**Los Angeles – San Diego – San Luis Obispo
Rail Corridor Agency**

DRAFT

**Upcoming Agenda Items
Board of Directors Meeting
July 15, 2024**

- Selection of Field Marketing Services
- Amendment to Agreement for Public Relations Services
- Execute First Option Term for Web Services with Nansen
- Semi-Annual Progress Report of the Los Angeles - San Diego - San Luis Obispo Rail Corridor Agency 2024 Work Plan
- Amtrak Police Department Update
- LOSSAN Rail Corridor Coastal Resiliency Update
- Status Update on Senate Bill 1098 (*Not Confirmed Yet*)