

















Orange County Transportation Authority

Darrell E. Johnson, OCTA Chief Executive Officer LOSSAN Rail Corridor Resiliency Subcommittee • May 16, 2023



What is OCTA?





Complete Streets

- Active transportation
- Signal synchronization
- OC Bridges
- City formula funding
- Local competitive grants funding



Transit

- OC Bus and paratransit
- OC Streetcar
- OC Flex microtransit
- Community-based
 transit
- Metrolink
- LOSSAN managing agency



Sustainability

- Zero-emission bus
- Air quality initiatives
- Innovative wildlife and habitat mitigation and preservation
- Water-quality grants
- Climate resiliency
 planning



Highways

- Measure M projects
- HOV lanes
- General-purpose lanes
- Tolled express lanes
- Motorist services



OCTA's Role in the LOSSAN Corridor

- Owns 40+ miles of rail, including 7 miles of critical coastal track in south Orange County
- Managing agency of the LOSSAN Rail Corridor Agency
- Member of the Southern California Regional Rail Authority (Metrolink) joint powers authority

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.







DANA POINT

Metrolink

Avenida Pic

SAN CLEMENTE

> SAN DIEGO COUNTY

C

Capistra Beach



\$2.1 Billion OCTA Investment

Orange County has invested more than \$2.1 billion in the rail corridor and on Metrolink service to date:



\$1.3 billion capital investments





Caltrans' LOSSAN Program Environmental Impact Report / Environmental Impact Statement

- Programmatic environmental process
- Active between 2002 and 2009
- Purpose to increase rail capacity and service reliability between Los Angeles and San Diego

 \$3.8 billion to \$5 billion (2003 dollars)
- Included double-track alternatives and tunneling portions in south Orange County
 - \$1.095 billion to \$1.76 billion (2003 dollars)
- Environmental impacts and mitigations to be determined

OCTA Rail Defense Against Climate Change Plan







- Coordinate with Metrolink to monitor and maintain existing revetment
- Further study of coastal bridges and culverts
- Plan for short- and long-term solutions

Completed by OCTA in 2021



Hazard(s): Flooding and erosion /sediment control

- Implement measures to control slope erosion
- Review and incorporate adaption strategies with next ROW drainage / slope stabilization project



Passenger Rail Stations

Hazard(s): Heat and weather exposure for passengers. Drought impacts to vegetation

• Future station improvement projects to consider strategies to mitigate extreme heat and drought, including shade structures, hydration stations and landscaping

Background: Track Stabilization









- Eroding beaches and hillsides between Dana Point and San Clemente affecting coastal public infrastructure
- Recent studies cite loss of sand and rise in sea levels as a major factor in beach and hillside erosion
- Clear need to develop phased solutions to address infrastructure impacts

San Clemente Track Stabilization







- Emergency construction cost approximately \$13.7 million
- Excludes right-of-way costs and coastal development permit fees and mitigation costs
- California Transportation Commission approved \$6 million in emergency funding



Track Stabilization Efforts

September 2021

Eroding private-property slope causes track movement forcing suspension of passenger rail service in south Orange County and start of emergency stabilization work on 700 feet of track with a 15,000-ton rock revetment.

October 2021

Emergency work is completed and passenger rail service restored.

December 2021

Geotechnical monitoring shows slow cumulative track movement, requiring 3,000 more tons of rock for stabilization.

September 2022

Passenger service suspended again after high tides and storm surge erodes some of previously placed 18,000 tons of rock and a 300-foot area just north suffers severe beach erosion after Hurricane Kay.

November 2022

OCTA begins placement of ground anchors and tie-backs to stabilize the tracks.

February 2023

Limited weekend passenger rail service resumed.

April 2023

All regular Metrolink and Amtrak Pacific Surfliner service resumed.

Current Track Closure in San Clemente









Passenger rail service halted Thursday, April 27, because of falling debris



Approximately 2 miles north of OCTA's track stabilization work and unrelated to that effort



OCTA is working with Metrolink, geotechnical experts and the Čity of San Clemente to monitor the situation and determine next steps

Framework for Future Solutions



Phase I Study short- to medium-term solutions

- Develop options to protect coastal rail infrastructure at various sea levels
- Gain an understanding of climate effects on coastal rail infrastructure
- Identify potential solutions for sand replenishment / retention
- Consult and engage key stakeholders / agencies
- Study cost: ~\$2 million
- Probable capital costs: ~\$ millions TBD

Phase II 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
- Consult and engage key stakeholder / agencies
- Study cost: ~\$5 million*
- Probable capital costs: ~\$ billions TBD

*OCTA thanks the State for its recent \$5 million Transit and Intercity Rail Capital Program award to help develop long-term solutions to keep trains running safely.

Next Steps and Needs



