

CALIFORNIA COASTAL COMMISSION

455 MARKET STREET, SUITE 228
SAN FRANCISCO, CA 94105-2219
VOICE (415) 904-5200
FAX (415) 904-5400



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CC-0001-20 (SANDAG)

August 7, 2020

CORRESPONDENCE



August 6, 2020

To: Chair Steve Padilla, California Coastal Commission

CC: Jack Ainsworth, Executive Director, California Coastal Commission; Karl Schwing, District Director, California Coastal Commission, San Diego Coast District

Re: CC-0001-20 After-the-fact Consistency Certification by SANDAG for Del Mar Bluffs Emergency Repair Project

Dear Chair Padilla,

The Surfrider Foundation is a non-profit, environmental organization dedicated to the protection and enjoyment of the world's oceans, waves and beaches for all people, through a powerful activist network. With nearly 70 miles of coastline to protect, the Surfrider Foundation San Diego County Chapter is one of the largest and most active chapters in the world. We are a grassroots organization, which means the people working to protect our local ocean, waves, and beaches are volunteers who care about the San Diego County coastline and want to make a difference.

Studies have repeatedly shown that sea level rise is not only inevitable - and every new study shows increasingly dire forecasts - but sea level rise (SLR) is also likely to cost the State of California more in damages than earthquakes or even wildfires. With such a threat steadily marching toward us, every action the Coastal Commission takes to address it (or not) is what will save our beaches (or not).

While San Diego and Del Mar have been actively discussing SLR threats to our communities for at least a decade, the danger posed by the train on the fragile Del Mar bluffs is nothing new. Trains have fallen off the tracks at least three times in the

railroad's history¹, including a New Year's Eve collapse documented by these historical photographs:



December 31, 1940 bluff collapse and train derailment

As part of its SLR planning activities, SANDAG and Caltrans prepared a report titled “San Diego Region Coastal Sea Level Rise Analysis” in September 2013². Del Mar’s SLR Technical Advisory Committee (STAC) documented threats to the community in the Coastal Hazards, Vulnerability, and Risk Assessments document³ (Vulnerabilities Assessment), which used data from SANDAG’s report to assess SLR and wave levels.

¹

<https://publishing.cdlib.org/ucpressebooks/view?docId=ft0h4nb01z:chunk.id=0;doc.view=print>

² http://www.dot.ca.gov/dist11/Env_docs/l-5PWP/Appendices/AppDSeaLevelRise.pdf

³

www.delmar.ca.us/DocumentCenter/View/2455/FINAL-DRAFT-Coastal-Hazards-Vulnerability-and-Risk-Assessment-for-Del-Mar-Final-Draft_July-2016?bidId=

**TABLE 1
SEA LEVEL RISE (SLR) PROJECTIONS**

	2030	2050	2070	2100
Mid SLR	5 in	12 in	20 in (1.7 ft)	37 in (3.1 ft)
High SLR	12 in	24 in	38 in (3.2 ft)	66 in (5.5 ft)

Using these SLR projections, the report came to a sobering conclusion:

*“...the beach in Northern Del Mar will reach zero width as early as 2060. Including historic background erosion rates will further decrease the time to zero beach width in North Beach to 2030.... In general, beach widths are wider in North Beach than they are further south along the shore, and thus, beach widths will reach zero even sooner in areas with narrower beaches. Again, note that the annual mean beach width is tabulated in Table 4, and which means that **zero winter beach width with [sic] be reached sooner than 2060, and zero summer beach will be reached later than 2060.**” (page 35, Vulnerabilities Assessment)*

**TABLE 4
BEACH WIDTHS OVER TIME WITH SLR**

Beach Width (ft)	2010	2020	2030	2040	2050	2060	2070	2080	2090	2100
Historic Rate (no SLR)	95	95	95	95	95	95	95	95	95	95
Historic Rate + Low SLR	95	92	88	84	79	73	66	57	48	38
Historic Rate + Mid SLR	95	84	76	67	55	41	26	9	0	0
Historic Rate + High SLR	95	69	53	34	12	0	0	0	0	0

(page 39, Vulnerabilities Assessment)

The bluff-top tracks are in the southern portion of Del Mar, so this report found that winter beach widths could reach zero sooner than 2060. This report also found the following concerning the bluff-top tracks and bluff erosion:

*Along the northern end of the southerly Del Mar bluffs, the railroad appears to be vulnerable to bluff erosion impacts under current conditions based on a safety criteria of maintaining a 10 ft offset between the bluff top edge and the railroad centerline (Leighton & Associates 2010)...The uncertainty of historic erosion in terms of future distance is approximately 20 feet over the forecasting period: Application of this additional erosion substantially increases the length of railway at risk. The projection of future erosion does not include the effect of sea level rise and therefore under-predicts the risk. In these locations however, CoSMoS results show that the bluff would retreat to the railroad in 2100 in a "low" sea level rise scenario (i.e., with 1.6 ft or 0.5 m of SLR in 2100). **Thus, the current localized vulnerability of the railroad to bluff retreat is expected to increase in extent in the near-term and extend along the entire bluff in the long-term** (i.e., by 2100 in a low SLR scenario or sooner in a mid to high SLR scenario). (page 75, Vulnerabilities Assessment)*

This point is illustrated by the Vulnerability Assessment's projected bluff-top position, which predicts that the northernmost portion of the bluff-top tracks in Del Mar will be seriously threatened by 2030 under the mid-SLR scenario.

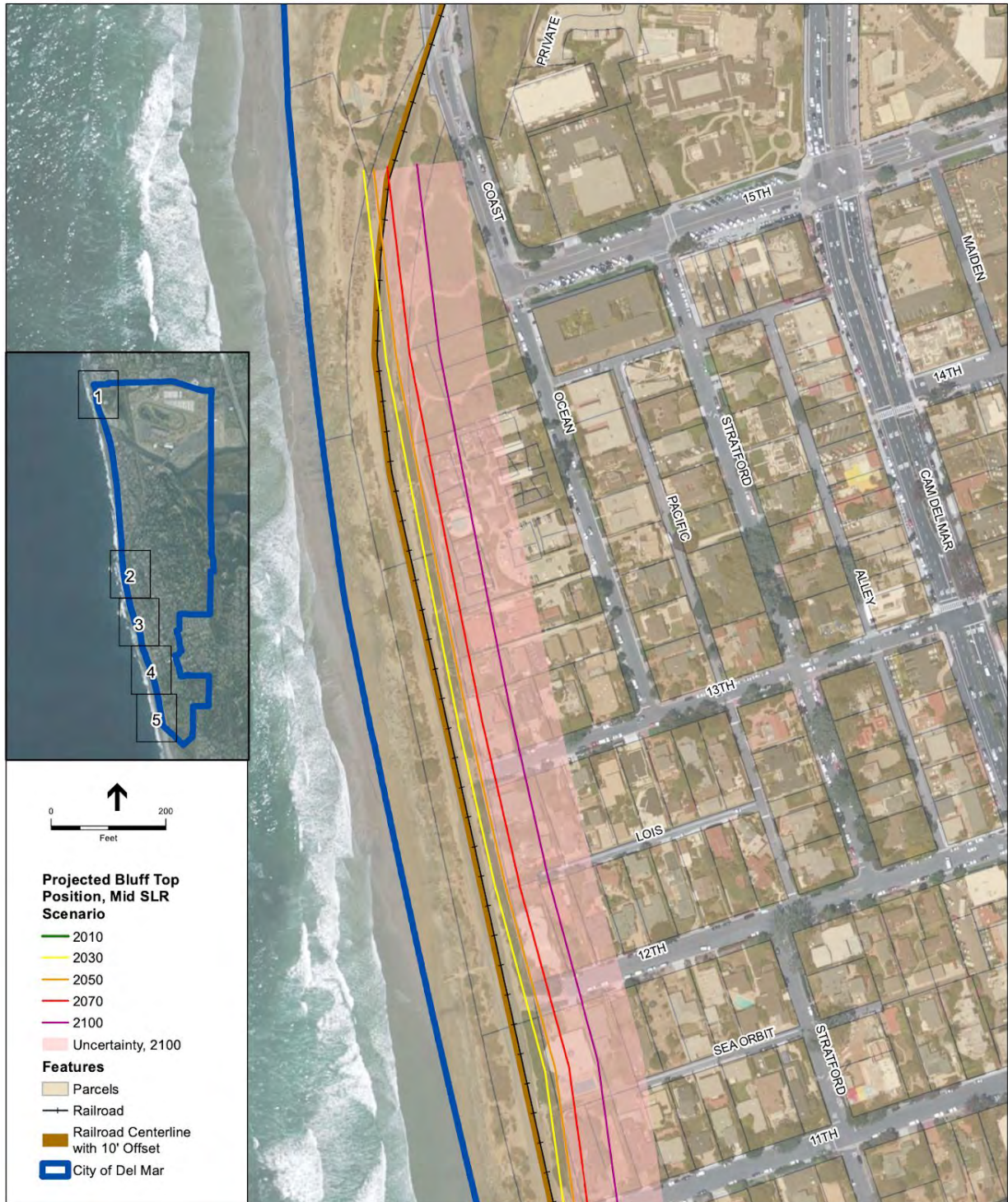


Figure 29.2, page 46, Vulnerabilities Assessment

Given the dangerous history of trains plunging to the beach due to bluff collapses as well as the known future threat of SLR, we urge the Coastal Commission to continue to apply pressure to SANDAG to accelerate their work to move the tracks off of the bluffs. Additionally, SANDAG and the North County Transportation District are working to double track this segment of the track for capacity-building and safety reasons. However, this is likely not feasible at the present location due to the well-documented risks. While we understand that the Federal Consistency process does not allow the Coastal Commission to place conditions on consistency findings, the Commission does have the authority to deny a finding of consistency if SANDAG will not apply conditions to their own permit. We urge the Commission to apply all possible pressure to accelerate relocation of the bluff-top tracks to save the public's beach in Del Mar and restore beach access, which is currently cut off for the 1.5 mile long stretch of the tracks.

Lastly, we have attached our chapter's policy statement concerning this issue for additional information.

Sincerely,

Kristin Brinner & Jim Jaffee
Beach Preservation Committee co-leads
San Diego County Chapter, Surfrider Foundation
Residents of Solana Beach

Laura Walsh
Policy Manager
San Diego County Chapter, Surfrider Foundation
Resident of San Diego



Policy Statement - Blufftop Track Relocation in Del Mar

The LOSSAN railroad runs through a 1.7 mile stretch of highly unstable bluffs in Del Mar. The Surfrider Foundation acknowledges that these coastal bluffs provide important and historic coastal access opportunities, and are invaluable to the ecology and character of Del Mar.

The Surfrider Foundation further acknowledges that the rail corridor is considered critical infrastructure by regional, state, and federal entities; and as a public transit option it provides opportunities for enhancing equity and reducing greenhouse gas emissions from transportation.

The safety threat related to the railroad's position along the bluffs in Del Mar is not a new phenomena. The tracks themselves were once further inland and in 1910 were relocated to the present location. Since that time, [three trains have fallen to the beach](#), the last time in 1941.

The San Diego Association of Governments (SANDAG), The North County Transportation District (NCTD), the City of Del Mar, and other stakeholders are evaluating long-term options for relocating this stretch of railroad in order to address these predictable — and now imminent — hazards related to the erosion of the bluffs. There is also strong motivation within the stakeholder group to double track this segment of the track for capacity building and safety reasons. Double tracking is not feasible at the present location due to the associated risks.

SANDAG is examining five long-term relocation alternatives. In the short-term, a six-phased project is underway to provide immediate stabilization of the railway through approximately 2050.

We support the long-term relocation of the railway. Del Mar's sensitive bluffs are an important source of habitat, and coastal access; and dynamic beaches and bluffs must be given the space to erode. Armoring and stabilization will not ultimately be effective as the bluff is already eroding measurably every year at a rate that will increase significantly as sea levels rise. Relocation should be pursued as quickly as possible, though will not likely occur within the next two decades.

In the meantime, the Surfrider Foundation is working proactively to ensure that short-term solutions for bluff stabilization are as adaptive as possible. Our region's strategy to brace itself against ongoing erosion, which will accelerate with sea level rise, should not include measures that will result in disastrous impacts that far outlast the benefits of our measures.

This statement is intended to be general in nature, as the San Diego Chapter of the Surfrider Foundation recognizes that this is an evolving situation.

The following all continue to be important factors in the LOSSAN rail situation in Del Mar:

- Landslides along the bluffs in Del Mar are frequent and relatively unpredictable, with a landslide in November 2019 occurring within feet of the tracks
- Bluffs in the area are currently eroding and erosion will accelerate such that the railway will be completely undermined in the near future according to a study by the City of Del Mar's SLR Technical Advisory Committee's (STAC) Coastal Hazards, Vulnerability, and Risk Assessments document.
- Urban water management practices result in large volumes of water discharging into drainage systems that cause erosion along Del Mar's cliffs.
- Multiple surf breaks are enjoyed along this stretch of beach, including at Torrey Pines State Beach, 8th Street Del Mar Reef, 4th Street, etc. Wave refraction caused by narrowing beaches is already an issue impacting these breaks.
- Sea levels in Southern California are generally expected to rise approximately 1 foot by 2050 and 3 feet or potentially much higher by the end of the century, according to the San Diego Regional Report to California's Fourth California Climate Change Assessment.
- Del Mar's beaches and coastal assets drive economic activity around tourism and coastal recreation
- The LOSSAN corridor is considered critical infrastructure, and rail service helps to meet greenhouse gas reduction targets for San Diego and improves equity through increased public transit.

- Other vulnerable public infrastructure along the bluffs includes sewage and wastewater infrastructure.

Therefore, Surfrider supports:

- The long-term relocation of 1.5 miles of track along the bluff in Del Mar and any associated segments that need to be relocated to facilitate relocation off the bluff.
- Efforts to study and analyze 'soft' alternative options for stabilizing the bluffs in the next 20-30 years that minimize impacts to coastal resources.
- Adequate analysis of the impacts of short-term bluff stabilization projects to coastal resources such as sand, waves, and coastal access; as well as opportunities for public review of such analyses.
- Mitigation from the negative impacts of seawalls, revetments and other hard structures that prevent the natural landward erosion of bluffs, in the form of both improved coastal access elsewhere and sand replenishment for impounded beach quality sand.
- Education, outreach, and city-led efforts to reduce urban runoff from the City of Del Mar
- Continual monitoring of local sea level rise and erosion trends
- Efforts to speed up the relocation of the tracks, including the identification and presentation of relocation alternatives, as well as investigation into relevant funding opportunities
- Improvements to coastal access along the current bluff-top railway location
- Efforts supporting the relocation of other infrastructure atop the bluffs, including sewage and wastewater infrastructure.