



OFFICE *of* INSPECTOR GENERAL
NATIONAL RAILROAD PASSENGER CORPORATION

SAFETY AND SECURITY:

More Active Engagement with Regional Partners Would Improve Awareness of Potential Operational Risks on the *Pacific Surfliner* Route

OIG-MAR-2022-002 | December 6, 2021

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Memorandum

To: Scot Naparstek
Executive Vice President/Chief Operations Officer

From: Jim Morrison *Jim Morrison*
Assistant Inspector General, Audits

Date: December 6, 2021

Subject: *Safety and Security: More Active Engagement with Regional Partners Would Improve Awareness of Potential Operational Risks on the Pacific Surfliner Route*
(OIG-MAR-2022-002)

Since 2018, at least six bluff failures have occurred in the Del Mar Bluffs area just north of San Diego, California, resulting in temporary closures on the railroad tracks that traverse the area and speed restrictions on Amtrak's (the company) high-volume *Pacific Surfliner* route.¹ The most recent failure occurred in February 2021, when a 60-foot seawall collapsed at the base of a 1.7-mile-long section of the tracks that run along the bluffs. Figure 1 shows the site of the February Del Mar collapse.

Figure 1. Beachside View of the February 28, 2021 Del Mar Bluff Collapse



Source: San Diego Association of Governments

¹ Prior to the pandemic, the company operated 26 daily *Pacific Surfliner* trains on 351 miles of track in California from San Diego to San Luis Obispo, moving 2.78 million passengers a year. Under normal conditions, the *Pacific Surfliner* is the busiest state-supported route in the country, and its daily traffic is second only to the Northeast Corridor.

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Also, in late September 2021, coastal erosion and high tides caused the railroad tracks near San Clemente, California to shift 14 inches, leading to a 3-week partial shut-down of the *Pacific Surfliner*.²

Our initial objective for this report was to assess the extent to which the company is evaluating the risks associated with operating service on tracks on the Del Mar bluffs. Because the service disruption in San Clemente involved similar issues along the same route and occurred during our work, we also performed a limited review of company actions in response to that event.

To do this work, we reviewed the company's System Safety Program Plan (safety plan) and federal regulations governing safety and railroad responsibilities. We also interviewed managers in the Finance and Safety departments regarding safety risks and managers in the Engineering, Strategy and Planning, and Transportation departments to discuss *Pacific Surfliner* operations and understand the relationships between the company and host railroads. In addition, we visited the Del Mar Bluffs area to observe the tracks and emergency repairs and met with representatives from the North County Transit District (NCTD), the San Diego Association of Governments, the state of California, and other regional partners to gain their perspectives on the company's safety role in the Del Mar region. Finally, we sought perspectives from Federal Railroad Administration (FRA) and the National Transportation Safety Board regarding the company's regulatory and safety responsibilities when operating in host railroad territory. For additional details on our scope and methodology, see Appendix A.

SUMMARY OF RESULTS

The company met its regulatory obligations in response to the conditions in Del Mar by complying with speed restrictions and track outages enforced by the host railroad.³ Company officials and other stakeholders in the region stated that host railroad actions and restrictions in response to the bluff failures ensured safe operating conditions at all times. The company, however, may be missing opportunities to gather all the information it needs to identify circumstances where it may decide to obtain further

² San Clemente is about 40 miles north of Del Mar. On September 16, the company suspended service between Oceanside and Irvine and provided buses for passengers.

³ Outside the Northeast Corridor, the company's trains travel primarily on tracks that other "host" railroads own. The company, operating in this capacity as a "tenant," pays these host railroads for use of the track and services required to support operations. Host railroads assume primary responsibility for providing safe track operating conditions under 49 C.F.R. Part 213.

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safety assurances. Specifically, the company is not participating in regional stakeholder working groups focused on understanding and planning both short- and long-term mitigation efforts like the Del Mar bluff failures along the *Pacific Surfliner* route. Participating in such groups would likely put the company in a better position to identify and manage risks on host railroads, consistent with the commitment in its safety plan to operate at the highest levels of safety by exceeding the regulatory requirements when circumstances indicate that further actions are warranted.⁴

When the company identifies conditions that necessitate a more proactive response, the company's safety plan prescribes a formalized process to identify, assess, and mitigate risks. For example, after reports of unsafe track conditions in San Clemente, the company determined that circumstances warranted a more proactive response. As a result, it suspended rail service until it could complete an internal review and seek its own assurances that it was safe to resume operations. The Vice President for Operational Safety attributes the company's actions in San Clemente in part to the progress the company is making in implementing its new risk-based approach to safety.

The company acknowledges it can increase its role in ensuring the safety of its passengers and employees when it is operating as a tenant railroad. To do so, it should consider participating in ongoing discussions with regional stakeholders about track and other conditions along the *Pacific Surfliner* route. Such participation would help it stay current on emerging risks and options under consideration that could affect company operations.

In commenting on a draft of this report, the Executive Vice President/Chief Operations Officer acknowledged the importance of our observation and identified a specific action to address our observation. Management will assign an Operations department official to participate in stakeholder discussions on evolving coastal conditions, short- and long-term remediation efforts, and potential re-alignment of the *Pacific Surfliner* route. For management's complete response, see Appendix B.

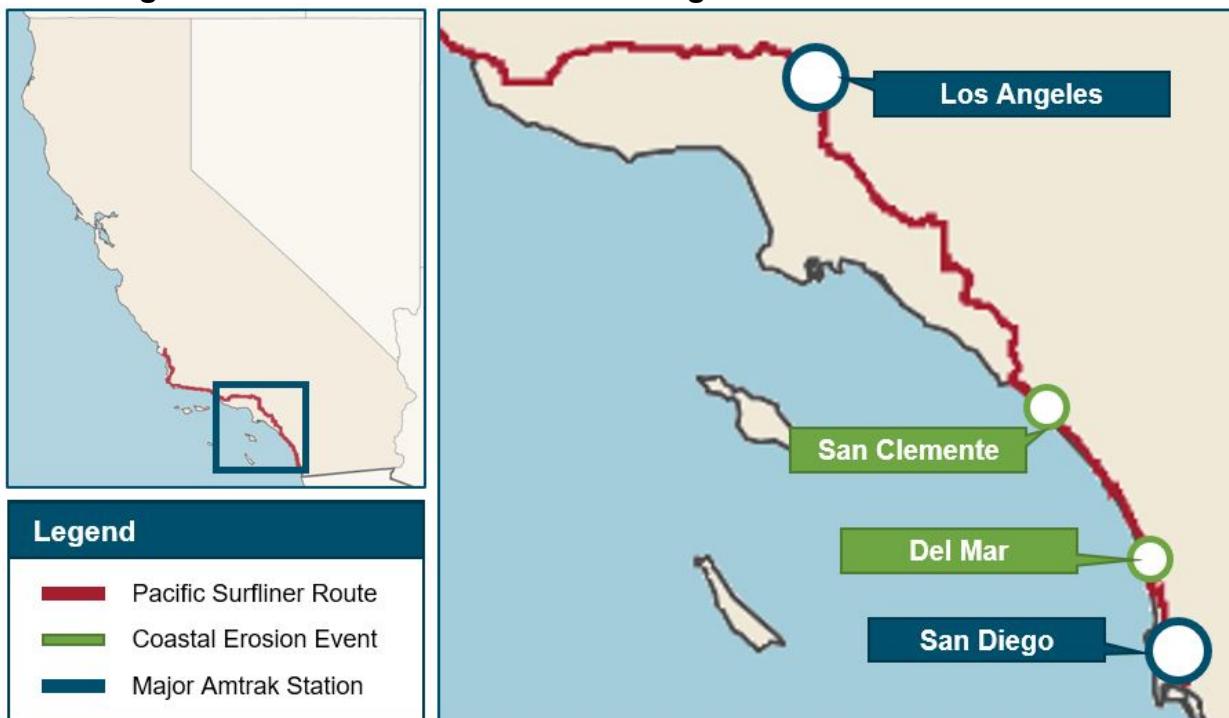
⁴ Through adoption of its Safety Management System, which includes developing and implementing a System Safety Program Plan, the company outlines its plans to proactively manage risks—including those on host railroads—that could result in harm to its customers, employees, and property. The Federal Railroad Administration approved the company's System Safety Program Plan in June 2021, and the company has three years to fully implement it.

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BACKGROUND

In Del Mar and San Clemente, trains operate on a single track adjacent to the coastline, which is subject to ongoing erosion. Figure 2 illustrates the *Pacific Surfliner* route and the locations of both sites.

Figure 2. Pacific Surfliner Route through Del Mar and San Clemente



Source: Amtrak OIG Analysis of Company Data

Del Mar Bluffs. NCTD owns the section of track through the Del Mar Bluffs where the February 2021 collapse occurred. As the host railroad, it is primarily responsible for inspecting and maintaining the tracks, and by regulation, has responsibility for establishing safe operating conditions. In addition to the company and freight railroad Burlington Northern Santa Fe (BNSF), which operate as tenants, NCTD runs the *Coaster* commuter service over this track.

As a result of the February 2021 bluff collapse, NCTD imposed temporary speed restrictions of 15 miles per hour for passenger trains during the emergency repair work. Figure 3 shows emergency work to repair the tracks following the February 2021 collapse.

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Figure 3. Trackside View of the February 28, 2021 Del Mar Bluff Collapse



Source: San Diego Association of Governments

In addition to emergency repairs, NCTD and its regional partner, the San Diego Association of Governments, have completed four projects since 2003 to help reinforce and protect the Del Mar bluffs and they plan to complete a fifth stabilization project over the next five years. Stakeholders have also begun to study long-term options for the corridor, including realigning the track off the Del Mar bluffs altogether.

San Clemente. The Orange County Transit Authority owns the section of track in the San Clemente area where the recent erosion occurred and, as the host railroad, is similarly responsible for maintaining safe operating conditions. In addition to the company, tenants on this section of track include Metrolink and BNSF, which combine to operate a normal schedule of more than 50 trains through this region. As a result of the recent ground shift, the company and Metrolink both curtailed passenger service while the Orange County Transit Authority performed additional inspections and worked with BNSF to bring in boulders to reinforce the railbed. Figure 4 shows track repairs at the site of recent erosion in San Clemente.

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Figure 4. Track Repairs After Erosion in San Clemente



Source: Amtrak Engineering department

FRA's Role in Track Safety. Under FRA regulations, each railroad has primary responsibility to ensure its track meets or exceeds the federal safety standards. This includes railroad inspectors performing track inspections at varying frequencies based on the class of track, the type of track, the annual gross tonnage operated over the track, and whether it carries passenger trains. The primary duty of FRA's federal track safety inspectors, along with certified State inspectors, is to strategically monitor, inspect, and assess track conditions to determine whether a railroad is complying with federal safety standards.

THE COMPANY COULD IMPROVE AWARENESS OF LOCAL ISSUES BY PARTICIPATING IN REGIONAL WORKING GROUPS

The company's adherence to operating restrictions in Del Mar was consistent with its regulatory obligations, but it has an opportunity to more fully understand the specific geological conditions, risks, and short- and long-term mitigation efforts underway by participating in regional forums dedicated to addressing Del Mar bluff issues.

Stakeholders in the region told us they are confident that the ongoing actions and mitigation efforts on the bluffs are sufficient to sustain continued safe operations. In addition, company officials and regional stakeholders in the Del Mar area told us that all parties cooperate well on routine operational decisions such as scheduling and

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planned maintenance outages. The company has not, however, routinely engaged in broader forums to discuss other issues, including the conditions and work along the bluffs. For example, after a major bluff slide in late 2019, the California State Transportation Agency organized a year-long effort to examine short- and long-term bluff stabilization issues that included more than 70 participants. Although NCTD, BNSF, and FRA took part in the working group, the company—the largest passenger operator on the bluffs—did not participate. A follow on study began in the summer of 2020 to analyze alternative route alignments, compare the benefits and costs in terms of safety, ridership, and speed, and assess impacts on service plans. The company is not participating in these discussions either, although any decisions to realign the route could affect the company's service plans and its revenue/ridership. Participation in such groups would likely put the company in a better position to identify and manage risks on host railroads, consistent with the commitments in its safety plan to operate at the highest levels of safety by exceeding the regulatory requirements when circumstances indicate that further action is warranted. Figure 5 shows the potential route alignments under consideration.

Figure 5. Pacific Surfliner Potential Route Alignments



Source: Los Angeles - San Diego - San Luis Obispo Coastal Rail Corridor

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THE COMPANY DETERMINED SAN CLEMENTE TRACK CONDITIONS WARRANTED A MORE PROACTIVE RESPONSE

When the company learned of the conditions along the *Pacific Surfliner* route in San Clemente, it determined that the incident warranted seeking further assurances regarding the safety of the track and the host railroad's efforts to mitigate risks. The company halted service along a portion of the route, and executives in the Transportation, Safety, and Engineering departments initiated a formal risk assessment of the track conditions. As part of this assessment, the Engineering department sent its subject matter expert in slope stability and drainage onsite to meet with the host railroad and its contractors to understand the risks and planned actions needed to restore service. A company manager told us that, through this exchange, they were able to establish an effective working relationship with the host railroad, and the Engineering department was able to share its expertise from addressing similar conditions on its *Empire* route along the Hudson River in New York. Based on its reviews of the incident reports, geo-technical assessments, and mitigation plans and its discussions with the host railroad regarding continued monitoring, the company confirmed that it received the necessary assurances to resume full service on October 4, 2021.

The Vice President for Operational Safety told us the formalized process the company used to assess safety risks in San Clemente indicates that the company's approach to safety is maturing. He expressed hope that this risk-based response, which is one of the four pillars of the company's safety plan, will help set a precedent for how the company responds to future conditions that the company determines warrant additional action.⁵ Further, the Executive Vice President for Operations and the Vice President for Transportation confirmed that the structured risk assessment process prescribed in the company's safety plan provided an effective framework for evaluating the risks and gave them added confidence in their decision to safely restart service.

CONCLUSIONS

Within the past year, two separate and significant track events on host-railroad owned tracks caused service interruptions along the *Pacific Surfliner* route. Both events raise concerns about evolving coastal conditions and are spurring high level discussions

⁵ The four pillars of the safety plan are Safety Risk Management, Safety Policy, Safety Assurance, and Safety Promotion.

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among stakeholders about long-term remediation efforts. Because the company has not been actively participating in ongoing working groups or discussions with stakeholders about these and other issues along the *Pacific Surfliner* route, it may not be receiving the most current information on the conditions, mitigation plans, and short- and long-term actions under consideration. Without current information on these efforts, the company may not be well positioned to determine when circumstances warrant additional company actions.

CONSIDERATIONS FOR MANAGEMENT

Going forward, the Executive Vice President / Chief Operations Officer should consider designating company personnel to participate in ongoing discussions with stakeholders about evolving coastal conditions, short- and long-term remediation efforts, and potential realignment of the *Pacific Surfliner* route.

MANAGEMENT RESPONSE AND OIG ANALYSIS

In commenting on a draft of this report, the Executive Vice President/Chief Operations Officer acknowledged the importance of our observation and identified a specific action to address our observation. Management will assign an Operations department official to participate in stakeholder discussions on evolving coastal conditions, short- and long-term remediation efforts, and potential re-alignment of the *Pacific Surfliner* route. For management's complete response, see Appendix B.

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APPENDIX A**Objective, Scope, and Methodology**

This report provides the results of our review of the company's response to coastal erosion along the *Pacific Surfliner* route in southern California. Our initial objective was to assess the extent to which the company is evaluating the risks associated with operating service on tracks on the Del Mar bluffs. Because a similar erosion event along the same route occurred during our work, we also performed a limited review of company actions in response to a service disruption in San Clemente. Our scope covered the company's actions to ensure safe operations over the Del Mar bluffs and in San Clemente. We performed our work from May to October 2021 in Del Mar, Los Angeles, and Oceanside, California, and Washington, D.C.

Del Mar. To assess the company's actions, we reviewed its safety plan and federal regulations governing safety and railroad responsibilities. We interviewed managers in the Finance and Safety departments regarding safety risks, as well as managers in the Engineering, Strategy and Planning, and Transportation departments to (1) discuss *Pacific Surfliner* operations and (2) understand the relationships between the company and host railroads. In addition, we visited the Del Mar Bluffs area to observe the tracks and emergency repairs and met with representatives from NCTD, the San Diego Association of Governments, the state of California, and other regional partners to gain their perspectives on the company's safety role in the Del Mar region. Finally, we sought perspectives from FRA and the National Transportation Safety Board regarding the company's regulatory and safety responsibilities when operating in host railroad territory.

San Clemente. To assess the company's actions, we interviewed managers in the Safety department to determine the role they played in the company's response to the service disruption. In addition, we interviewed managers in the Engineering and Transportation departments who met with the host railroad and other operators on the section of track where the incident occurred to understand the circumstances that led to the service disruption and the assurances needed before the company reinstated service.

We conducted our work in accordance with standards we developed for alternative products.

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Internal Controls

We reviewed the internal controls the company had in place to identify and assess the risk associated with operations on the Del Mar bluffs. We assessed the internal control components and determined that the following component was significant to our objective:

- **Risk Assessment.** Management should assess and respond to the risks facing the company as it seeks to achieve its objectives.

We developed steps to ensure that we reviewed this control area, including assessing the following:

- existing mechanisms by which the company identifies and assesses risk to operations
- risk assessments and mitigations related to the program

Because our work was limited to this one component of internal control, it may not have disclosed all of the internal control deficiencies that may have existed at the time of this review.

Computer-processed Data

Our analyses and findings did not rely on computer-generated data from any company information systems.

Prior Reports

In conducting our analysis, we reviewed the following Amtrak OIG reports:

- *Safety and Security: Amtrak Expects Positive Train Control will be Interoperable with Other Railroads but Could Better Measure System Reliability* (OIG-A-2021-004), December 11, 2020
- *Safety and Security: Expanded Random Drug Testing Could Help Further Detect and Deter Prescription Opioid Misuse* (OIG-A-2021-003), October 27, 2020

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APPENDIX B

MANAGEMENT COMMENTS

NATIONAL RAILROAD PASSENGER CORPORATION

Memo



Date December 2, 2021 From Scot Napolitano, EVP COO


To	Jim Morrison, Assistant Inspector General, Audits	Department	Operations
cc			William J. Flynn, CEO Stephen Gardner, President Eleanor Acheson, EVP General Counsel Michelle Caudill, AVP Transportation SW Carol Hanna, VP Controller Roger Harris, EVP Marketing & Revenue Shawn Gordon, VP Transportation Laura Mason, EVP Major Program Delivery Justin Meko, VP Operational Safety Dennis Newman, EVP Strategy & Planning Steven Predmore, EVP CSO Mark Richards, Sr. Director Amtrak Risk & Controls Qiana Spain, EVP CHRO Tracie Winbigler, EVP CFO Christian Zaciassen, EVP CIO

Subject: Management Response to *Safety and Security: More Active Engagement with Regional Partners Would Improve Awareness of Potential Operational Risks on the Pacific Surfliner Route* (Draft Management Advisory Report for Project No. 010-2021)

This memorandum provides Amtrak's response to the draft management advisory report titled, "More Active Engagement with Regional Partners Would Improve Awareness of Potential Operational Risks on the Pacific Surfliner Route". Management appreciates the opportunity to respond to the OIG's observations. Amtrak takes our duty and responsibility to proactively manage risk very seriously. The two separate and significant track events on host-railroad owned tracks causing service interruptions along the *Pacific Surfliner* route highlighted additional opportunities available to Amtrak to proactively manage risks. Effective immediately, the Executive Vice President/Chief Operations Officer has mandated that an Amtrak representative from the Operations Department will participate in ongoing discussions with stakeholders about evolving coastal conditions, short-and long-term remediation efforts, and potential realignment of the Pacific Surfliner route. The representative will communicate and involve the information gathered from these discussions with the appropriate Amtrak subject matter experts to identify actions, if any, Amtrak will take based upon the information that is presented.

Amtrak is confident that the measures outlined here address the OIG's considerations and support Amtrak's proactive risk management strategy.

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APPENDIX C

Abbreviations

BNSF	Burlington Northern Santa Fe
FRA	Federal Railroad Administration
NCTD	North County Transit District
OIG	Amtrak Office of Inspector General
safety plan	System Safety Program Plan
the company	Amtrak

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APPENDIX D

OIG Team Members

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OIG MISSION AND CONTACT INFORMATION

Mission

The Amtrak OIG's mission is to provide independent, objective oversight of Amtrak's programs and operations through audits and investigations focused on recommending improvements to Amtrak's economy, efficiency, and effectiveness; preventing and detecting fraud, waste, and abuse; and providing Congress, Amtrak management, and Amtrak's Board of Directors with timely information about problems and deficiencies relating to Amtrak's programs and operations.

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or

800-468-5469

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