

## Recommendation Status Report: Embankment washout under a passenger train at Haddiscoe

This report is based on information provided to the RAIB by the relevant safety authority or public body.

The status of the recommendation(s), as reported to us, are described by the following categories:

### Key to Recommendation Status

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|---|--|
| <b>Open</b><br>(replaces Progressing and Implementation On-going)                                 | Actions to address the recommendation are ongoing.   |
| <b>Closed</b><br>(replaces Implemented, Implemented by alternative means, and Non-implementation) | ORR consider the recommendation to have been taken into consideration by an end implementer and evidence provided to show action taken or justification for no action taken.   |
| <b>Insufficient response:</b>   | The end implementer has not provided sufficient evidence that the recommendation has been taken into consideration, or if it has, the action proposed does not address the recommendation, or there is insufficient evidence to support no action being taken. |
| <b>Superseded:</b>  | The recommendation has been superseded either by a newer recommendation or actions have subsequently been taken by the end implementer that have superseded the recommendation.  |
| <b>Awaiting response:</b>   | Awaiting initial report from the relevant safety authority or public body on the status of the recommendation.   |

RAIB concern over the way that an organisation has responded to a recommendation are indicated by one of the following:

**Red** – RAIB has concerns that no actions have been taken in response to a recommendation.

**Blue** – RAIB has concerns that the actions taken, or proposed, are inappropriate or insufficient to address the risk identified during the investigation.

**White** – RAIB notes substantive actions have been reported, but the RAIB still has concerns.

# Recommendation Status Report



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|-------------------------|---|
| <b>Report Title</b>     | Embankment washout under a passenger train at Haddiscoe |
| <b>Report Number</b>    | 07/2023   |
| <b>Date of Incident</b> | 30/01/2022  |

| Rec No.    | Status     | RAIB Concern | Recommendation  | RAIB Summary of current status   |
|------------|------------|--------------|---|--|
| 07/2023/01 | Closed - I | None         | <p>The intent of this recommendation is to ensure that railway-related flood risk is managed alongside Haddiscoe New Cut, taking account of issues such as the potential for flooding to be caused by relatively small amounts of overtopping.</p> <p>The Environment Agency and Network Rail should agree a shared understanding of how railway-related flooding risk alongside the New Cut at Haddiscoe is managed. Their considerations should include:</p> <ul style="list-style-type: none"> <li>• ensuring that the Haddiscoe flood defence is included in appropriate Network Rail infrastructure management systems</li> <li>• the circumstances in which overtopping and/or failure of the Environmental Agency flood defence infrastructure could occur, and the potential impacts of this on the railway</li> <li>• learning from previous overtopping/failures of the flood defences</li> <li>• the flood warning arrangements required and provided</li> <li>• the types and frequency of inspections, monitoring and assessment required to manage railway-related flood risk, how the associated access will be provided and how the results of these activities will be communicated between the Environment Agency and Network Rail, including any understanding of consequent risk</li> <li>• if any changes are required to existing flood defences to mitigate the risks identified, both in the long term and the interim period before any longer-term measures are implemented.</li> </ul> | <p>ORR has reported that Network Rail has reported that it has completed actions taken in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p> |
| 07/2023/02 | Open       | None         | <p>The intent of this recommendation is to ensure Network Rail weather management processes are consistent for all types of weather events, including tidal flooding.</p>   | <p>ORR has reported that Network Rail has a proposed action plan and timescale for delivery to be taken in response to the</p>   |

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|            |                   |      | <p>Network Rail should develop processes for the effective identification, recording, and management of sites at risk from coastal/tidal and fluvial flooding (for example, via the integrated weather management plan). These should include:</p> <ul style="list-style-type: none"> <li>• criteria for identifying specific areas at risk, the level of acceptable risk and the threshold at which mitigations are required</li> <li>• standard guidance for carrying out flood risk assessments and developing mitigations</li> <li>• identifying the staff in Network Rail who will be responsible for carrying this out.</li> </ul>  | <p>recommendation. ORR will advise when the status of this recommendation changes.</p>   |
| 07/2023/03 | Open              | None | <p>The intent of this recommendation is to ensure controls and processes are adequate to manage the operational response to all types of weather events that can cause the railway to flood, and that tidal flooding is integrated into existing weather management standards.</p> <p>Network Rail should ensure that flood warnings from external organisations are managed and disseminated in a timely manner to operational and maintenance staff, and that any required response is clearly defined in the integrated weather management plan.</p>   | <p>ORR has reported that Network Rail has a proposed action plan and timescale for delivery to be taken in response to the recommendation. ORR will advise when the status of this recommendation changes.</p> |
| 07/2023/04 | Awaiting Response | None | <p>The intent of this recommendation is to improve interaction between Network Rail and organisations responsible for tidal flood defences where the operation of these defences affects railway safety. This includes consideration of railway-specific risk such as localised flooding leading to washout of material supporting the track resulting in a serious accident.</p> <p>Network Rail, the Environment Agency and Natural Resources Wales should work together to identify any railway-related risks arising from the overtopping and/or failure of tidal flood defences where this could adversely affect the safety of Network Rail infrastructure. Where such locations are identified, Network Rail, the Environment Agency and Natural Resources Wales should undertake the following:</p> <ul style="list-style-type: none"> <li>• agree a shared understanding of roles and responsibilities in the</li> </ul> |  |

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|            |                   |      | <p>management of flood defences, including where railway infrastructure (such as embankments) forms an integral part of the flood defence</p> <ul style="list-style-type: none"> <li>• ensure processes are provided to identify, and assign to the appropriate organisation, the actions required at each flood defence location to maintain railway safety. This should include: <ul style="list-style-type: none"> <li>- identifying the nature of the risks arising from the overtopping and/or failure of the flood defence</li> <li>- developing the requirements for inspection, monitoring and maintenance for each organisation</li> <li>- specifying how information is communicated so that each organisation can manage its own risks appropriately</li> <li>- determining how lessons will be learned across all of these organisations where overtopping and failures of tidal flood defences occur.</li> </ul> </li> </ul> <p>As part of this work, Network Rail and the Environment Agency and Natural Resources Wales should review and, where necessary, improve any relevant existing agreements such as Memorandums of Understanding.</p> |  |
| 07/2023/05 | Awaiting Response | None | <p>The intent of this recommendation is to improve interaction between Network Rail and local authorities responsible for tidal flood defences in Scotland where the operation of these defences affects railway safety. This includes consideration of railway-specific risk such as localised flooding leading to washout of material supporting the track resulting in a serious accident.</p> <p>Network Rail should liaise with local authorities in Scotland who are responsible for tidal flood defences to identify any risks arising from their overtopping and/or failure that could adversely affect the safety of Network Rail infrastructure. Where such locations are identified, Network Rail should undertake the following:</p> <ul style="list-style-type: none"> <li>• agree a shared understanding of roles and responsibilities in the management of flood defences, including where railway infrastructure (such as embankments) forms an integral part of the flood defence</li> </ul>   |  |

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|  |  | <ul style="list-style-type: none"><li>• ensure processes are provided to identify, and assign to the appropriate organisation, the actions required at each flood defence location to maintain railway safety. This should include:<ul style="list-style-type: none"><li>- identifying the nature of the risks arising from the overtopping and/or failure of the flood defence</li><li>- developing the requirements for inspection, monitoring and maintenance for each organisation</li><li>- specifying how information is communicated so that each organisation can manage its own risks appropriately</li><li>- determining how lessons will be learned across all of these organisations where overtopping and failures of tidal flood defences occur.</li></ul></li></ul> <p>As part of this work, Network Rail and local authorities responsible for tidal flood defences in Scotland, should review and where necessary, improve any relevant existing agreements such as Memorandums of Understanding.</p> |  |
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