

Recommendation(s) Status: Network Rail's Management of Existing Earthworks

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

The status of implementation of the recommendations, as reported to us, has been divided into six categories:

Key to Recommendation Status

Implemented:	All actions to deliver the recommendation have been completed.
Implemented by alternative means:	The intent of the recommendation has been satisfied in a way that was not identified by the RAIB during the investigation.
Implementation ongoing:	Work to deliver the intent of the recommendation has been agreed and is in the process of being delivered.
In-progress:	The relevant safety authority has yet to be satisfied that an appropriate plan, with timescales, is in place to implement the recommendation; and work is in progress to provide this.
Non-implementation:	Regulation 12(2)(b)(iii) = recommendation considered and no implementation action to be taken.
Awaiting response:	Awaiting initial report from the relevant safety authority or public body on the status of the recommendation.

RAIB concerns on actions taken by organisations in response to recommendations are reflected in this report and are indicated by one of the following:

-  The red triangle shows recommendations where the RAIB has concerns that no actions have been taken in response to a recommendation.
-  The blue triangle shows recommendations where the RAIB has concerns that the actions taken, or proposed, are inappropriate or insufficient to address the risk identified during the investigation.
-  The white triangle shows recommendations where the RAIB notes substantive actions have been reported, but the RAIB still has concerns.

Note: The tables which follow, report the status of recommendations on 31 December 2015. In some other cases the end implementer has already sent information to the relevant safety authority about the actions it has taken, or proposes to take and the safety authority is considering whether it is satisfied that those actions and the associated timescales are accepted.

Number/ Date/ Report No/ Inv Title / Current Status	Safety Recommendation	Summary of current status (based on latest report from the relevant safety authority or public body)
<p>1 28/02/2008 25/2008</p> <p>Network Rail's Management of Existing Earthworks</p> <p>Status: Implemented</p>	<p>Network Rail should conduct a study into the potential contribution to the assessment and understanding of earthworks risk from the following factors, and amend their processes as appropriate to include any improvements identified:</p> <p>a) the use of inspection intervals of one, five and ten years (paragraph 97);</p> <p>b) local maintenance staff not reporting all precursor earthworks related defects – these may have rectification measures applied locally without further reporting (paragraph 190);</p> <p>c) lack of a process for maintenance staff to report earthworks defects to the Territory Earthworks and Drainage Engineer organisation to enable appropriate action to be taken (paragraph 189);</p> <p>d) track inspection staff not routinely looking over cutting horizons (paragraph 137);</p> <p>e) a high focus by track inspection staff on track support areas and particularly embankments to the detriment of other earthworks elements (paragraph 138);</p> <p>f) track maintenance staff not having the capability, knowledge or time available to routinely inspect off-track issues – for example water in neighbouring land (paragraph 138);</p> <p>g) the potential for earthworks examiners to not observe all relevant factors and indicators, because of the infrequent and seasonal visits (paragraph 95);</p> <p>h) the relative weighting attached to the risks from cuttings and embankments in the Slope Stability Hazard Index algorithm – and particularly in view of b), d),</p> <p>e) above (paragraph 68);</p> <p>i) the risk weighting attached to the operational consequence of an earthworks failure (paragraph 88); and</p> <p>j) the value of information sources used in other inspections and whether this could be utilised in the reduction of risk from an earthworks failure (paragraph 154).</p>	<p>ORR is satisfied that Network Rail has a process in place that broadly meets the requirements of this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>2 28/02/2008 25/2008</p> <p>Network Rail's Management of Existing Earthworks</p> <p>Status: Implemented</p>	<p>Network Rail should review the best practice found in the following areas during this investigation and include within their procedures so that it is universally applied:</p> <p>*maintenance of Territory Earthworks and Drainage Engineers resource levels (paragraph 106);</p> <p>*track maintenance staff briefings (paragraph 122);</p> <p>* the reporting arrangements for earthworks problems (paragraph 126); and</p> <p>*communication systems between maintenance staff and territory earthworks teams (paragraph 146).</p>	<p>Network Rail has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>

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<p>3 28/02/2008 25/2008</p> <p>Network Rail's Management of Existing Earthworks</p> <p>Status: Implemented</p>	<p>Network Rail should provide clear policy, information and guidance to staff, particularly those in the maintenance organisation, with regard to neighbours and problems related to the management of infrastructure risk (paragraph 157).</p>	<p>Network Rail has reported taking action in response to this recommendation.</p> <p>ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p> <p>ORR has closed the recommendation</p>
<p>4 28/02/2008 25/2008</p> <p>Network Rail's Management of Existing Earthworks</p> <p>Status: Implemented</p>	<p>Network Rail should align the actions in regard to adverse weather which currently appear in NR/CIV/S/086, NR/L3/TRK/1010 and RT/LS/S/021 to provide a clearer and more cohesive response and ensure that this is communicated throughout the relevant parts of the organisation (paragraph 164).</p>	<p>Network Rail has reported taking action in response to this recommendation.</p> <p>ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p> <p>ORR has closed the recommendation</p>
<p>5 28/02/2008 25/2008</p> <p>Network Rail's Management of Existing Earthworks</p> <p>Status: Implemented</p>	<p>Network Rail should develop and implement a communications procedure between Territory Earthworks and Drainage teams and local maintenance staff to provide relevant information and allow more effective management of the earthworks risk and Safety of the Line (paragraph 149).</p>	<p>Network Rail has reported taking action in response to this recommendation.</p> <p>ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p> <p>ORR has closed the recommendation</p>
<p>6 28/02/2008 25/2008</p> <p>Network Rail's Management of Existing Earthworks</p> <p>Status: Implemented</p>	<p>Network Rail should clarify the requirements for maintenance inspectors to observe earthworks and develop an appropriate reporting process. This information should be included in NR/SP/TRK/001 (paragraphs 111 to 114).</p>	<p>Network Rail has reported that it has taken actions in response to this recommendation.</p> <p>ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>