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Mr Andrew Hall
Deputy Chief Inspector of Rail Accidents
Cullen House
Berkshire Copse Rd
Aldershot
Hampshire GU11 2HP

Dear Andrew,

Trains passed over washed out track at Baildon, West Yorkshire, 7 June 2016

I write to report¹ on the consideration given and action taken in respect of the three recommendations addressed to ORR in the above report, published on 16 February 2017.

The annex to this letter provides details in respect of each recommendation. The status of recommendations 1 and 2 is '**progressing**' and the status of recommendation 3 is '**insufficient response**'.

ORR will advise RAIB when further information is available regarding actions being taken to address these recommendations.

We will publish this response on the ORR website on 19 February 2018.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Oliver Stewart', written over a horizontal line.

Oliver Stewart

¹ In accordance with Regulation 12(2)(b) of the Railways (Accident Investigation and Reporting) Regulations 2005

Initial consideration by ORR

1. All 3 recommendations were addressed to ORR when the report was published on 16 February 2017.
2. After considering the recommendations ORR passed all 3 recommendations to Network Rail asking them to consider and where appropriate act upon them and advise ORR of its conclusions. The consideration given to each recommendation is included below.
3. This annex identifies the correspondence with end implementers on which ORR's decision has been based.

Recommendation 1

The intent of this recommendation is minimise the risk of recurrence of another track washout at Baildon endangering trains.

Network Rail should put measures in place to reduce the risk of a track washout at Baildon. Measures to be considered should include, but not be limited to, the following:

- a) following the inspection of the drain system that leads from culvert GUE/5, an assessment of whether there is any blockage that needs clearing, or a permanent restriction in the drain system (paragraph 100a.i);
- b) installation of a line-side flood water capture system to carry flood water away safely from the site to prevent further washouts (paragraph 100a.ii); and
- c) completion of the work already begun on providing alerts to trigger actions of incident responders following heavy rainfall events detected in the Baildon area by the Network Rail Weather Service system

ORR decision

4. Network Rail has not yet been able to implement an engineering solution to prevent a future washout at Baildon. As a mitigation, Network Rail are planning to install CCTV and water level sensing equipment at the location to help control staff identify conditions that may lead to a washout. Once the equipment has been installed, a local operating procedure will be written, briefed and agreed with Operations and Maintenance.
5. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:
 - taken the recommendation into consideration; and
 - is taking action to implement it, but ORR has yet to be provided with a timebound plan.

Status: Progressing. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Information in support of ORR decision

6. On 22 January 2018 Network Rail provided the following initial response:

Network Rail's LNE Route has initiated work to address this recommendation and will be completed in three stages:

Stage 1:

A full survey of the drainage system was completed during September 2016. The culvert is in good condition both upstream and downstream with no significant defects or obstructions that could affect hydraulic performance. The configuration of the incoming pipe and chamber, however, is such that significant head losses can occur, that could cause backwater effects resulting in flooding from the cover of the chambers during extreme rainfall events.

Network Rail will collaborate with Bradford MBC (the owner of the affected section of the pipe) to modify the chambers to reduce friction during high flows.

Multiple meetings between Network Rail and Bradford MBC took place during July and September 2017 and a joint investigation into the drainage is being undertaken.

A further meeting took place during November 2017 to review the CCTV footage from the inspections and agree the appropriate course of action; unfortunately however the CCTV footage from Bradford MBC was not available to view.

A further meeting with Bradford MBC will be arranged during Spring 2018, to review the CCTV footage from the inspections and agree the appropriate course of action.

Stage 2:

Open channel system with storage and attenuation to be considered. Reliable outfall required.

Network Rail completed an internal desk top investigation and a report was produced during July 2017. This identified an existing but disused culvert that appeared to offer an appropriate solution (appears originally to have been designed to take the overflow from the main culvert).

A remit was issued to a contractor to deliver an onsite investigation to find this existing culvert. The report into the intrusive drainage investigation has now been completed. Despite investigation, the culvert inlet and outlet have not yet been found and the condition the watercourse downstream of the old culvert is unknown. Without extensive work on private land it would not be possible to

prove the route and condition of the downstream drain. Without assurance of the competence of the downstream drain, it is not feasible (morally or practically) to create an overflow route. The investigation has recommended that Network Rail lock down the upstream and downstream chamber covers to Culvert GUE2/5.

As mitigation, a process is in place for when an EWAT is issued for additional inspections to be undertaken by local maintainers. CCTV overview cameras (with images viewable by control) are to be installed. Additionally, when an EWAT is issued local maintenance and operations staff have been briefed to pay special attention to the critical assets at Baildon.

Stage 3:

CCTV and remote water level sensing equipment will be installed in the chamber. An Operating procedure is to be written, briefed and agreed to Control staff, maintenance and local operations colleagues.

A remit for installation of CCTV was issued in October 2017 and funding was arranged in December 2017, delivery dates are awaited.

A remit for Remote Condition Monitoring for the upstream chamber at Baildon (to advise of rising water levels) has been issued and is being priced. Once the equipment is installed, tested and commissioned a local operating procedure will be written, briefed and agreed with Operations and Maintenance.

*Timescale
30/06/2018*

Recommendation 2

The intent of this recommendation is to improve Network Rail's emergency response to incidents on the track particularly in situations where emergencies are first identified by members of the public.

Network Rail should develop and implement a system to enable its controllers to be able to rapidly translate geographic or post code information provided by others on locations adjacent to the railway, into track location information so enabling the effective direction of responders

ORR decision

7. Network Rail has reviewed existing arrangements among the different routes for communication arrangements to identify locations using information other than that which is specific to the railway, such as ELRs. Once appropriate arrangements have been formalised, Network Rail will brief them to the routes.

8. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:

- taken the recommendation into consideration; and
- is taking action to implement it, but ORR has yet to be provided with a timebound plan.

Status: Progressing. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Information in support of ORR decision

9. On 22 January 2018 Network Rail provided the following initial response:

The recommendation featured as an agenda item at the National COM meeting in June 2017, where the recommendation was shared with all Route COMs. Feedback was requested from all Routes on best practice that already exists on the communication/translation of converting location details from local information (non railway) i.e. postcode etc. to railway specific (ELR, miles and chains etc.).

The feedback received so far shows that LNE use Geo RINM or Google Maps through the Information Coordinators. Anglia, Wessex and LNW South do the same but their Incident Controllers find the information. All other routes utilise the same technology with minor differences in terms of who conducts the task.

The full feedback will be reviewed and any lessons learnt from individual Routes will be displayed and discussed at Level 0 visualisation at Eversholt Street with the RMDs and also shared with other Routes. It will also form part of the lessons learnt pack as part of the NOC reporting.

Timescale: 31/06/2018

Recommendation 3

The intent of this recommendation is to improve the effectiveness of communicating safety critical information between incident controllers and signallers and drivers, in order to reduce the time taken to alert trains in emergency situations.

Network Rail should review how its controllers respond to emergency phone calls about the safety of the line, to make sure that important information is captured and accurately transmitted to relevant railway responders, and implement any identified improvements. The scope of the review should include consideration of the following:

a) controllers making direct contact with the initiator of the emergency call to clarify the nature of the emergency situation and its location (paragraph 69), and

b) the most appropriate way for GSM-R emergency calls to be made to train drivers, whether from the control room directly, via the shift signalling manager, or via the signaller

ORR decision

10. Network Rail has not provided a formal response to this recommendation.

11. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:

- has not provided a response setting out how the recommendation will be delivered.

Status: Insufficient response. ORR will advise RAIB when further information is available regarding actions being taken to address this recommendation.

Information in support of ORR decision

12. On 22 January 2018 Network Rail provided an initial response to recommendations 1 and 2, but no information on actions to address recommendation 3.