

Note on the Mill Stream Bridge and footpath diversion and the calculation of floodplain storage compensation

Mr Patmore and Mrs Callaway discussed the following on the 27th July 2021 and agree on the points below:

Mill Stream Bridge and Footpath

1. A separate technical note is being prepared by Rother Valley Railway Ltd to clarify the track levels and design modifications
2. If the track level is raised from 11.23 mAOD to 11.56 mAOD at the Mill Stream, the revised track level will tie into the new A21 levels and then return to the levels shown on the 2016 drawing (RVR-G-001 C) to the west of Bridge 14.
3. If the track at the Mill Stream is raised any additional impact on flood risk will be negligible due to the modelled maximum flood level being approximately 1m below the top of the current embankment proposal in this area. The embankment along this section of the railway is not lowered in the design to allow overtopping.
4. If the track level is raised there would potentially be a small increase in the volume of material in the floodplain. This can be mitigated through the embankment slope design or through the provision of compensatory storage. As such flood risk will not be increased.
5. The approach taken to assess the frequency of flooding is suitable.
6. In the future there may be a small increase in the frequency of flooding to the footpath under the bridge and at the Mill Stream footbridge, resulting from climate change.
7. The risk of blockage at the Mill Stream bridge is low.

Floodplain Storage Compensation calculations were also discussed:

1. It was agreed that final calculations on volumes are not possible until the detailed design is completed.
2. The WSP calculations are for the full height of the embankment (rail to ground level) and assume 1 in 3 embankment slopes throughout.
3. The use of the track level is conservative because the top of the embankment will be lower than the track and ballast level.
4. Floodplain Storage Compensation is normally calculated up to the 1% AEP with climate change design flood event maximum water level. A long section of maximum water level was not available when WSP undertook their calculations and as such it has not be factored into the calculations.
5. Once the maximum water level is taken into consideration the volumes calculated will reduce.
6. The final calculations will need to take into consideration the detailed design of the embankment (both cut and fill), abutments, and access ramps and slopes

Mrs Suzanne Callaway

Mr Chris Patmore

27th July 2021