

## MITIGATION OPTIONS CONSIDERED

Model Run	Additional Mitigation Measures	Risks
3a	Increase the Hinksey Stream channel capacity by 50% between the outlet of the proposed culvert and Abingdon Road Bridge, attendant with the removal of Towles Mill weir	During the 1 in 5 year return period both simulations increased conveyance of water beneath the railway corridor which resulted in higher flood depths to the east. These were dismissed as they posed a more severe flood risk than the stand alone culvert option.
3b	Increase the Hinksey Stream channel capacity by 50% between the section downstream of Fowles Bridge and Towles Mill weir, retaining the weir structure	
4a	Lower the existing Redbridge channel invert by 1m and regrade the channel bed to a constant gradient	Channel widths are likely to be smaller than the initial model – results may not be achieved without widening the channel in addition to the proposed lowering of the bed levels. Groundwater level is also high in this area and the increase in channel capacity will be taken up by the ingress of groundwater.
4b	Remove weir only (Towles Mill)	Towles Mill weir controls the water levels during the lower flow events to the watercourse downstream. The removal of the weir would have an impact on local hydrology and would increase the risk of flooding further downstream.
4c	Enlarge Redbridge channel (right bank only) to a width of 50m over a length of 250m	<ul style="list-style-type: none"> <li>• High groundwater levels.</li> <li>• Channels would have to be substantially widened.</li> <li>• Land not owned by Network Rail</li> <li>• Time scales unlikely to be achieved within the current project duration due to works on Third Party property and planning consents.</li> </ul>
4d	Combination of simulations 4a and 4b	As per simulations 4a and 4b.

Source: Table 2 p11 FRA

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