



**Haweswater Aqueduct Resilience Programme - Proposed Bowland
Section**

Volume 6

Proposed Ribble Crossing

Chapter 12: Materials and Waste

June 2021



Water for the North West



Haweswater Aqueduct Resilience Programme - Proposed Bowland Section

Project No: B27070CT
Document Title: Volume 6 Proposed Ribble Crossing
Chapter 12: Materials and Waste
Document Ref.: LCC_RVBC-BO-RC-ES-012
Revision: 0
Date: June 2021
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12. Materials and Waste

12.1 Introduction

- 1) This chapter presents an assessment of the likely significant effects of the Proposed Ribble Crossing on Materials and Waste.
- 2) The legislation and planning policies relevant to Materials and Waste are considered in Section 12.3 of the Proposed Bowland Section ES.
- 3) For the purposes of this chapter, materials and waste are defined as:
 - The use of material resources
 - The generation and management of waste and materials.
- 4) Material resources are defined as the materials and construction products required for construction, improvement, and maintenance. Material resources include primary raw materials such as aggregates and minerals, and manufactured products for construction.
- 5) Waste is defined as per the Waste Framework Directive (2008/98/EC) as 'any substance or object which the holder discards or intends or is required to discard'.
- 6) The overall waste management approach for the Proposed Bowland Section is to prioritise waste prevention, followed by preparing for re-use, recycling and recovery and lastly disposal to landfill. This is as per the internationally recognised waste hierarchy shown in Illustration 12.1.

Illustration 12.1: Waste Hierarchy



- 7) This assessment applies the same methodology and criteria employed in Section 12.4 of the Proposed Bowland Section ES. The assessment has been developed and undertaken following the approach set out in Highways England Design Manual for Roads and Bridges (DMRB) LA 110 Material Assets and Waste (2019)¹, supplemented by guidance contained in Highways England's Major Projects' Instructions (MPI) (2017)².

¹ Highways England LA 110 Material Assets and Waste (2019) <https://www.standardsforhighways.co.uk/prod/attachments/6a19a7d4-2596-490d-b17b-4c9e570339e9> (accessed 27 April 2020)

² Highways England's (2017) Major Projects' Instructions (MPI) 57-052017 (Rev 1) <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR030003/TR030003-000707-Highways%20England%20-%20Environmental%20Impact%20Assessment.pdf> (accessed 27 April 2020)

- 8) The LA 110 guidance provides environmental assessment advice which reflects both legislative and best practice requirements and has been successfully deployed on a range of infrastructure projects in the UK. It seeks to ensure information about the environmental effects of projects is collected, assessed, and used to inform option choice, design and decision making in a timely and cost-effective manner.

12.1 Scoping

- 9) A Materials and Waste chapter was included within the EIA Scoping Report which was submitted to the relevant planning authorities for comment in February 2021. Scoping report responses were provided by each of the local authorities and these have been reviewed and incorporated into the assessment. Scoping comments and responses are outlined in Volume 4: Appendix 4.1.

- 10) The scope of this assessment covers:

- Waste that will be generated by construction and decommissioning activities undertaken during the proposed construction period
- Materials used during the construction activities undertaken during the proposed construction period

12.1.1 Materials Assessment

- 11) In the EIA Scoping Report, submitted to the relevant planning authorities for comment in February 2021, materials were removed from the scope of the assessment; as was the case for the Proposed Bowland Section and the Proposed Programme of Works.

12.1.2 Construction Waste

- 12) The Proposed Ribble Crossing is estimated to create 5,775 m³ of surplus excavated materials from topsoil during construction.
- 13) The surplus excavated materials will be stored on site for reuse in the restoration of the site when the Proposed Ribble Crossing is decommissioned. This activity will be managed under a Materials Management Plan (MMP). It is assumed that 100 % of materials will be suitable for reuse on site.
- 14) As all construction waste will be reused onsite, there is not expected to be a significant impact and therefore construction waste has been removed from scope.

12.1.3 Decommissioning Waste

- 15) The Proposed Ribble Crossing is estimated to create 5,775 m³ (12,204 tonnes) of waste during decommissioning of the road surface.
- 16) Based on previous professional experience, it is assumed that 10 % of the total waste generated during decommissioning of the Proposed Ribble Crossing will be contaminated. It is anticipated that 577.5 m³ (1,120 tonnes) of waste will need to be diverted to hazardous or non-hazardous landfill.
- 17) It is assumed that 90 % of waste generated during decommissioning of the Proposed Ribble Crossing will be suitable for reuse offsite or can be recycled. It is estimated that 5,197.5 m³ (10,083 tonnes) would be diverted from landfill.
- 18) As only 577.5 m³ all waste from decommissioning would be diverted to landfill, it is not expected that waste from the Proposed Ribble Crossing would create a significant impact on landfill capacity within the region of the North West, and Yorkshire and The Humber; therefore decommissioning waste has been removed from scope.
- 19) Furthermore, a worst-case scenario where 5,775 m³ (12,204 tonnes) waste is sent to landfill would be non-significant when applied to the significance criteria employed in Section 12.4 of the Proposed Bowland Section ES.

12.1.4 Enabling Works

- 20) Due to the nature of the enabling works, no significant net increase in materials and waste would be generated.

12.1.5 Operational Waste

- 21) The environmental assessment for material assets and waste has only reported on the first year of operational activities (the opening year). Operational impacts have not been included in this assessment as it has been assumed that there would not be a significant net increase in materials consumption or waste generation.

12.2 Cumulative Effects

- 22) The following section provides an overview of the potential cumulative effects from different developments, in combination with the Proposed Bowland and Marl Hill Section (inter-project). For cumulative effects related to the combined action of a number of different environmental topics (intra-project), see Chapter 19: Cumulative Effects. Refer also to Figure 19.1 Cumulative Effects.
- 23) Cumulative effects have been assessed in terms of the additional and combined effects.
- 24) The hazardous waste landfill capacity for North West, and Yorkshire and The Humber is expected to be 16,841,848 tonnes in 2030 (The Proposed Bowland Section ES Section 12.5). The Proposed Bowland and Marl Hill Section is expected to generate 12,221 tonnes of hazardous waste. The addition of 1,120 tonnes of hazardous waste for the Proposed Ribble Crossing would not change the significance value against the criteria referenced within the Section 12.6 of the Proposed Bowland Section. The cumulative impact would not change significance value, which would remain 'Negligible' and therefore the cumulative effect is non-significant.
- 25) Given the assessment undertaken and comparison against the assessment criteria in Section 12.4 in the Proposed Bowland Section, the impact of waste arisings from construction and decommissioning are not considered to be significant. No additional inter-project cumulative effects have been identified.

12.3 Conclusion

- 26) This chapter of the ES considered the potential Materials and Waste impacts associated with construction and operation of the Proposed Ribble Crossing along the route of the Proposed Bowland Section.
- 27) The Proposed Ribble Crossing has been evaluated in regard to materials and waste. The scoping assessment has found that the impacts are non-significant. No additional cumulative significant effects were identified.

12.4 Glossary and Key Terms

- 28) Key phrases and terms used within this technical chapter relating to Materials and Waste are defined within Volume 4 Appendix 1.2: Glossary and Key Terms.