



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

**Environmental Statement Volume 2**

**Chapter 2: Environmental Context**

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## Haweswater Aqueduct Resilience Programme - Proposed Bowland Section

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## Contents

<b>2.</b>	<b>Environmental Context.....</b>	<b>1</b>
2.1	Introduction .....	1
2.2	Lancaster City Council.....	1
2.3	Ribble Valley Borough Council.....	2

## 2. Environmental Context

### 2.1 Introduction

- 1) This chapter provides an overview of the environmental setting of the Proposed Bowland Section, describing some of the key features of the natural and built environment located within or in the general area of the planning application boundaries. More detailed baseline environmental information specific to individual EIA topics is presented in Chapters 6 to 18.
- 2) As indicated in Figure 1.1, the Proposed Programme of Works comprises five sections of aqueduct, extending from Docker in Cumbria to Bury in Greater Manchester. The existing aqueduct starts by taking raw water from Haweswater Reservoir in the Lake District National Park along a 16 km section of the aqueduct to a water treatment works near Kendal for treatment. From Kendal the existing aqueduct conveys treated water to customers in Cumbria, Lancashire and Greater Manchester via service reservoirs and water mains which branch off the main aqueduct.
- 3) The Proposed Bowland Section is located within a variety of landscape types and land use settings. Much of the Proposed Bowland Section – specifically the main construction compounds and the new tunnel section connecting these compounds – is situated within the Forest of Bowland Area of Outstanding Natural Beauty (AONB). Other elements of the proposed development are also located within the AONB, for example a proposed satellite compound at Wray and many of the proposed off-site highway works located along the road haulage routes which would serve the main construction compounds. Outside the AONB, other elements of the Proposed Bowland Section comprise the Proposed Ribble Crossing (a temporary, dedicated section of new haul route which would be located in open countryside to the north of Clitheroe), a park and ride facility at the existing staff car park on the urban fringe of Clitheroe at Ribblesdale Cement Works, and a heavy goods vehicle holding facility (also at the cement works).
- 4) The landscapes in which these different elements of the Proposed Bowland Section are located vary with altitude, and include moorland hills, moorland fringe and wooded rural valleys, at higher elevations, and higher moorland plateaux and undulating lowland farmland, at lower elevations. Settlements are located within lower elevations and comprise small rural villages such as Wray and Low Bentham to the north and Newton-in-Bowland and Waddington to the south. Individual and isolated farms and residential properties are common to both areas.
- 5) The Proposed Bowland Section is located within the two local authority areas of Lancaster City Council and Ribble Valley Borough Council. A planning application for the Proposed Bowland Section will be submitted to each of the local planning authorities, two planning applications in total for this section supported by one Environmental Statement.
- 6) The following sections describe the environmental context of the route, running from north to south through both of the local authority areas.

### 2.2 Lancaster City Council

- 7) As shown on Figure 1.1, approximately 7 km of the Proposed Bowland Section runs through the local authority area of Lancaster City Council and the Lower Houses Compound would be located within this part of the route. Lancaster City is the second largest Lancashire authority covering 576 km<sup>2</sup>. The 2019 mid-year population was just over 146,000<sup>1</sup>. The local and strategic road network within the district includes a mixture of rural and urban routes connecting with the M6 motorway.

#### 2.2.1 Lower Houses Compound

- 8) The Lower Houses Compound is at the north end of the Proposed Bowland Section and provides a connection point from the existing Haweswater Aqueduct into the new aqueduct. The proposed Lower Houses compound occupies an area of approximately 11 ha. The compound would house the reception

<sup>1</sup> Lancashire County Council Local Authority Profile, Lancaster District - <https://www.lancashire.gov.uk/lancashire-insight/area-profiles/local-authority-profiles/lancaster-district/> [accessed 14 January 2021]

shaft for the Tunnel Boring Machine (TBM), being driven from the Newton-in-Bowland Compound. The topography of the surrounding area is undulating, ranging from approximately 120 m above Ordnance Datum (AOD) along river valleys to 300 m within Goodber Common.

- 9) The Lower Houses Compound location is approximately 4 km south east of Wray and 1.6 km north-west of Low Gill. There are no large settlements within 3 km of the compound area, with a number of dispersed farmsteads and building groups on higher moorland areas, and the small, rural village of Lowgill located on the rising valley side above the River Hindburn. The compound would include surplus materials storage (tunnel arisings) within its boundaries. Site access would be from Park House Lane in the north-east with site traffic exiting by Helks Brow on the western side of the compound.
- 10) Watercourses in this area form tributaries within the River Hindburn catchment, with the River Hindburn itself being an Environment Agency Main River and locally recognised for containing habitat for spawning and migrating Atlantic salmon, a protected species. There are four Sites of Special Scientific Interest (SSSIs) located within 5 km of the Lower Houses Compound, these include Far Holme Meadow SSSI (0.68 km east), Robert Hall Moor SSSI (2.0 km north), Roeburndale Woods SSSI (2.0 km west) and Clear Beck Meadow SSSI (2.7 km north). There are also 23 Biological Heritage Sites (BHS) located within 2 km of the Lower Houses Compound. The main habitat identified within the Lower Houses Compound is poor semi-improved grassland (10.85 ha) with approximately 30 scattered broadleaved trees and three watercourses partially crossing through the compound area.
- 11) The Lower Houses Compound would be mainly located within a Lancashire historic landscape type known as a Post Medieval enclosures. There are 12 non-designated cultural heritage assets within 200 m of the Lower Houses Compound, including archaeological remains from the Medieval and Post Medieval period and non-designated historic buildings.
- 12) There are public footpaths and bridleways within 1 km of the Lower Houses Compound, providing recreational access to the countryside, and two long-distance footpaths crossing the access route for the compound area at Lower House Farm.

### 2.2.2 Craven District Council

- 13) The planning application boundaries of the Proposed Bowland Section in the Lower Houses Compound area extend into Craven District Council. United Utilities has entered into discussions with Lancaster City Council and Craven District Council concerning responsibilities for determining the planning application. It has been agreed that Lancaster City will determine the Lower Houses Compound application for those parts of the Proposed Bowland Section which lie within the Craven district area (i.e. the off-site highways works described in Volume 5). The proposed highways works in Craven District Council are almost exclusively within and adjacent to the boundary of local public highways rather than in undeveloped open countryside.

## 2.3 Ribble Valley Borough Council

- 14) As shown on Figure 1.1, approximately 9 km of the Proposed Bowland Section runs through the local authority area of Ribble Valley Borough Council. The Newton-In-Bowland Compound would be located within this part of the route. Ribble Valley in east Lancashire is the largest borough in Lancashire covering 583 km<sup>2</sup> and comprising 26 wards.<sup>2</sup>

### 2.3.1 Newton-In-Bowland Compound

- 15) The Newton-In-Bowland Compound would house the drive portal, covering approximately 24 ha. The topography of the surrounding area ranges from approximately 130 m AOD along the river valley to 340 m AOD at Standridge Hill.
- 16) The Newton-In-Bowland Compound is at its nearest point approximately 440 m to the west of Newton-in-Bowland, and entirely within the Forest of Bowland AONB. Settlements within 3 km of the compound

<sup>2</sup> Lancashire County Council Local Authority Profile, Ribble Valley District - <https://www.lancashire.gov.uk/lancashire-insight/area-profiles/local-authority-profiles/ribble-valley-district/> [accessed 14 January 2021]

area are generally located within the valley bottom along the River Hodder, and include Slaidburn to the north east, Dunsop Bridge to the west and Newton-in-Bowland towards the centre. The proposed Newton-in-Bowland Compound would comprise two compound areas separated by Newton Road. In total, both parts of the compound comprise an area of approximately 24 ha. Site access would be via a temporary haul road approximately 1 km in length running from the B6478 (Hallgate Hill) just south of Newton-in-Bowland with a new temporary bridge crossing of the River Hodder to reach the compound area south of Newton Road.

- 17) There are seven statutorily designated wildlife sites located within 5 km proximity of the Newton-In-Bowland Compound; these comprise Bowland Fells SPA (2.7 km north), Bowland Fells SSSI (2.7 km north), North Pennine Dales Meadows SAC (2.2 km north), Myttons Meadows SSSI (2.2 km north), Bell Sykes Meadow SSSI (3.1 km north east), Langcliff Cross Meadow SSSI (3.6 km north east) and Field Head Meadow SSSI (4 km north east). There are also 23 Biological Heritage Sites (BHS) located within 2 km of the Newton-In-Bowland Compound. The main habitat in terms of size within the Newton-in-Bowland Compound is poor semi-improved grassland (21.48 ha), scattered broadleaved trees, and six watercourses crossing through the compound area. A groundwater-dependent habitat of potential county value is also located within the planning application boundary.
- 18) The Newton-in-Bowland Compound would be mainly located within Post Medieval Enclosure (Lancashire Historic Landscape Types). There are 19 cultural heritage assets within 200 m of the Newton-In-Bowland Compound, including seven Grade II Listed Buildings (one Grade II\*), Newton-in-Bowland Conservation Area, archaeological remains from the Roman, Medieval and Post Medieval period and non-designated historic buildings.
- 19) The Newton-in-Bowland compound is located in proximity to the River Hodder, near to which there are Public Rights of Way and long distance footpaths including The Hodder Way, The Lancashire Way: Central Route and Clitheroe 60K.