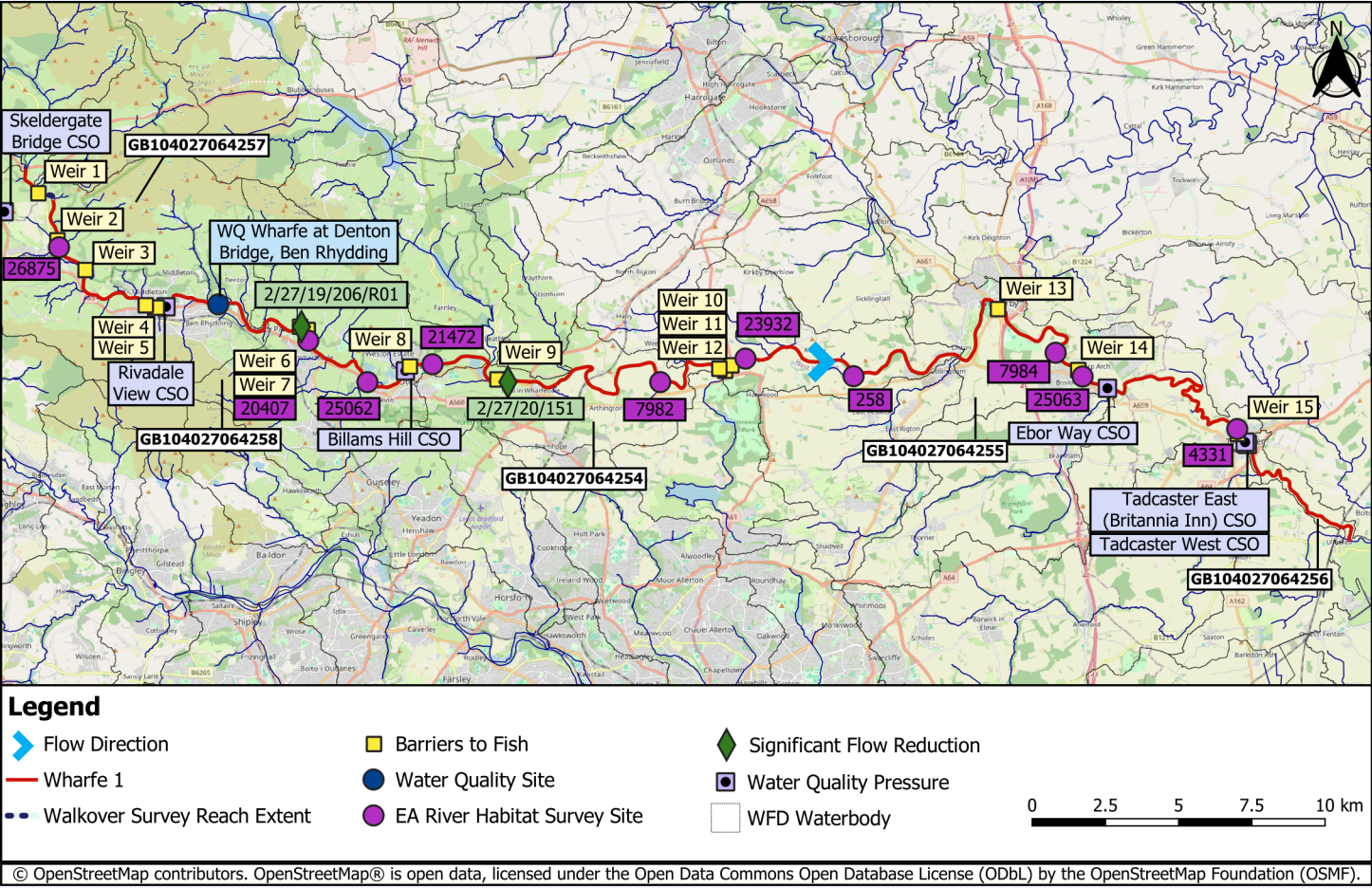
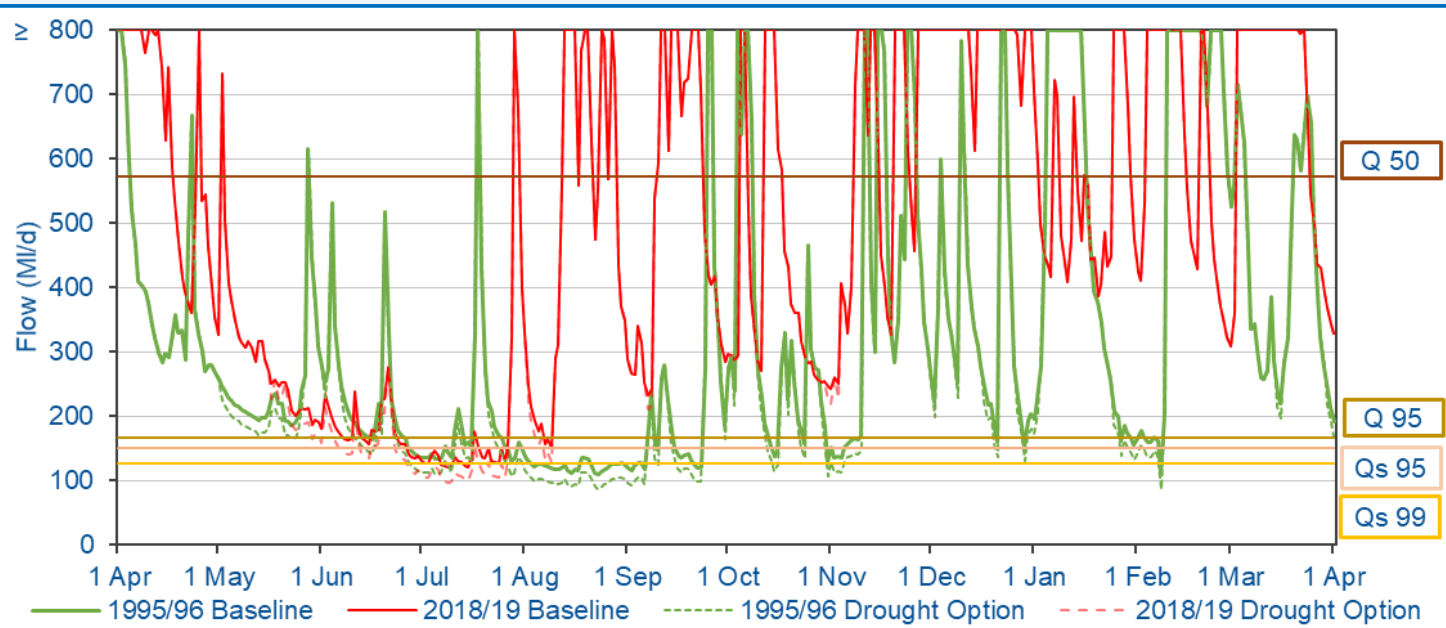


Reach Setting



River Wharfe Flow Regime at Addingham Flow Gauge 27043



	Reference Conditions (ML/d)	Drought Plan Conditions (ML/d)	% Reduction	Impact	Significant Flow Additions/Reductions	Flow Rate (ML/d)	Abstraction / Discharge
Q <sub>s</sub> 95	152.1	129.4	14.9	Summer Moderate	Wharfedale Hydro Power Ltd/ 2/27/19/206/R01	864.0	Abstraction
Q <sub>s</sub> 99	126.1	103.4	18.0				
Q95	167.6	144.9	13.5	Winter Minor	Whiteley Ltd/ 2/27/20/151	14.4	Abstraction
Q50	575.2	575.2	0.0				

Reach Setting Information:

The bedrock geology is dominated by the Millstone Grit in the upper part of the reach, becoming more dominant downstream, where lithologies of the Zechstein Group (limestone) and undifferentiated Permian (mudstone, siltstone, sandstone) and Triassic (sandstone and conglomerate) lithologies dominate. The superficial geology is diverse due to the length of the reach. The reach is underlain by alluvium and surrounded, predominantly, by glacial tills. There are scattered river terrace deposits and glaciofluvial deposits along the reach. Soil types beneath the reach are composed predominantly of freely draining lime-rich soils and freely draining floodplain soils with a small section of loamy and clayey floodplain soils at the end of the reach between Tadcaster and the tidal limit.

	Supplementary Information
Catchment Area at Assessment Point	413.3km <sup>2</sup>
Mean Slope Gradient	0.07°
Length of Reach	68.4km
Additional Catchment Area	497.0km <sup>2</sup>
Upstream Reach	N/A
Downstream Reach	N/A

River Habitats

No walkover survey was carried out during the onset of drought in 2018. This will be included in the EMP.

River Water Quality

Significant Water Quality Pressures	Permit Conditions
Rivadale View CSO / 3166(SS)	Intermittent discharge
Billams Hill CSO / WADC717 A1	Intermittent discharge
Ebor Way CSO / WA5855	Intermittent discharge
Tadcaster West CSO / 27/20/0112	Intermittent discharge
Skeldergate Bridge CSO	Intermittent discharge
Tadcaster East CSO / 27/20/0113	Intermittent discharge

At the River Wharfe at Denton Bridge, Ben Rhydding (NE-49700247) the average pH between 2014-2023 was 8.2 with a maximum temperature of 20.2°C



YorkshireWater



RICARDO

Figure A4.1

Wharfe 1

Physical Environment Information

