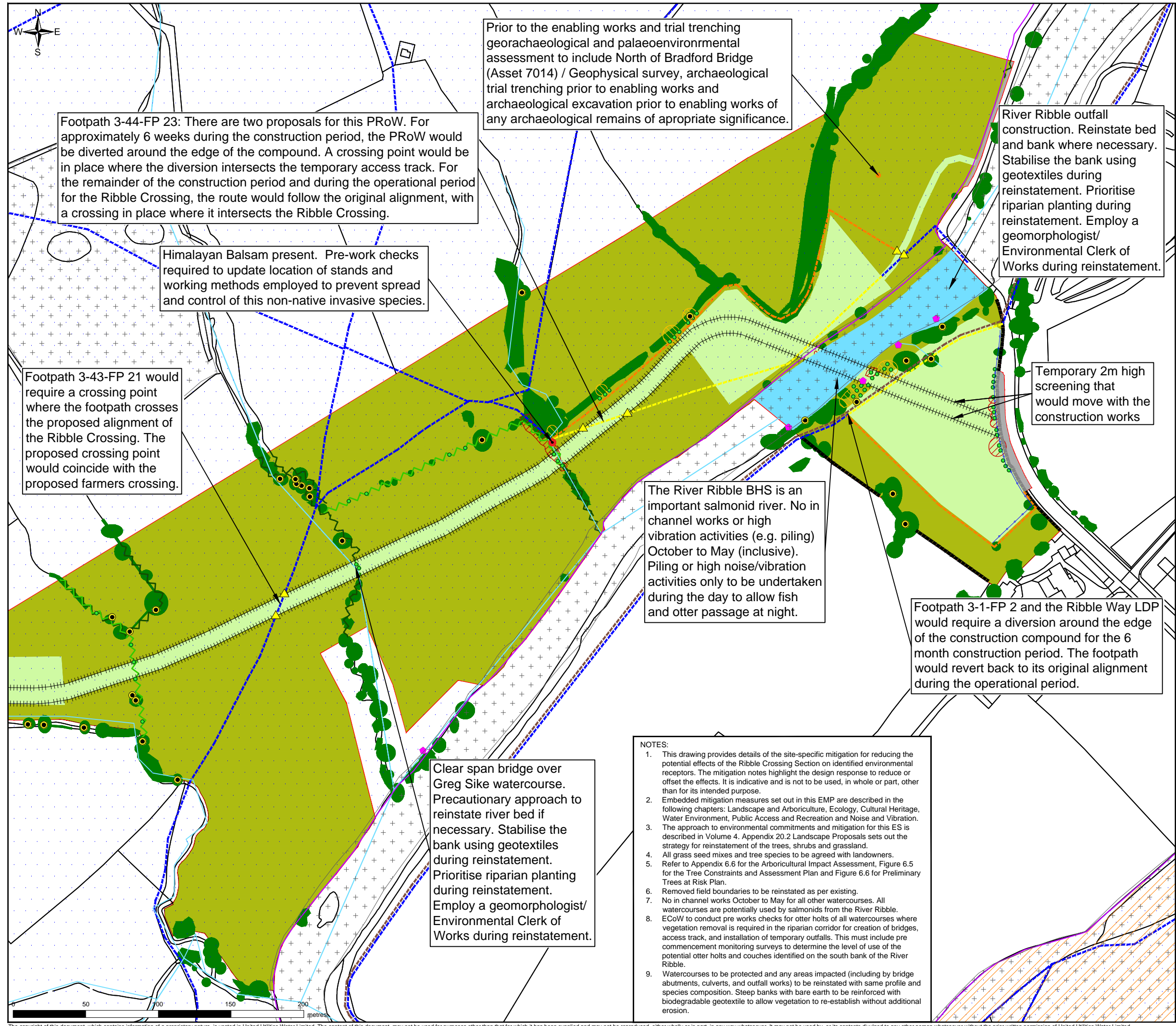


FIGURE 20.1



Legend

[Red outline]	Planning Application Boundary
[Blue line]	Existing watercourse (to be retained)
[Blue area]	Existing river channel (to be retained)
[Black outline]	Existing building (to be retained)
[Grey outline]	Existing track / hardstanding (to be retained / reinstated)
[Blue dashed line]	Existing PRoW (to be retained)
[Brown dashed line]	Existing Ribble Way Long Distance Path (LDP)
[Green area]	Existing vegetation (to be retained)
[Red hatched area]	Existing vegetation (to be removed)
[Yellow hatched area]	Existing vegetation (at risk of removal)
[Green area]	Existing grassland (to be retained)
[Green wavy line]	Existing hedgerow (to be retained)
[Black dashed line]	Existing wall (to be retained)
[Cross-hatched area]	Existing Biological Heritage Site (BHS)
[Orange hatched area]	Existing Local Nature Reserve
[Purple hatched area]	Existing Local Geodiversity Site
[Orange circle]	Existing cultural heritage asset
[Red circle]	Existing invasive species
[Yellow circle]	Bat roost potential tree
[Pink circle]	Potential otter holt / couch locations
[Green circle]	Proposed tree
[Green area]	Proposed reinstated grassland
[Green wavy line]	Proposed hedgerow
[Yellow triangle]	Proposed temporary PRoW access gate
[Orange dashed line]	Proposed temporary PRoW diversion
[Yellow dashed line]	Proposed temporary PRoW closure
[Grey dashed line]	Proposed reinstated wall
[Blue dashed line]	Proposed 2.4m high hoarding fence
[Black dashed line]	Proposed 2m high temporary screening during construction (to be moved to follow location of the construction works)

Footpath 3-44-FP 23: There are two proposals for this PRoW. For approximately 6 weeks during the construction period, the PRoW would be diverted around the edge of the compound. A crossing point would be in place where the diversion intersects the temporary access track. For the remainder of the construction period and during the operational period for the Ribble Crossing, the route would follow the original alignment, with a crossing in place where it intersects the Ribble Crossing.

Himalayan Balsam present. Pre-work checks required to update location of stands and working methods employed to prevent spread and control of this non-native invasive species.

Footpath 3-43-FP 21 would require a crossing point where the footpath crosses the proposed alignment of the Ribble Crossing. The proposed crossing point would coincide with the proposed farmers crossing.

Prior to the enabling works and trial trenching georachaeological and palaeoenvironmental assessment to include North of Bradford Bridge (Asset 7014) / Geophysical survey, archaeological trial trenching prior to enabling works and archaeological excavation prior to enabling works of any archaeological remains of appropriate significance.

River Ribble outfall construction. Reinstatement bed and bank where necessary. Stabilise the bank using geotextiles during reinstatement. Prioritise riparian planting during reinstatement. Employ a geomorphologist/ Environmental Clerk of Works during reinstatement.

Temporary 2m high screening that would move with the construction works

The River Ribble BHS is an important salmonid river. No in channel works or high vibration activities (e.g. piling) October to May (inclusive). Piling or high noise/vibration activities only to be undertaken during the day to allow fish and otter passage at night.

Footpath 3-1-FP 2 and the Ribble Way LDP would require a diversion around the edge of the construction compound for the 6 month construction period. The footpath would revert back to its original alignment during the operational period.

Clear span bridge over Greg Sike watercourse. Precautionary approach to reinstate river bed if necessary. Stabilise the bank using geotextiles during reinstatement. Prioritise riparian planting during reinstatement. Employ a geomorphologist/ Environmental Clerk of Works during reinstatement.

- NOTES:**
1. This drawing provides details of the site-specific mitigation for reducing the potential effects of the Ribble Crossing Section on identified environmental receptors. The mitigation notes highlight the design response to reduce or offset the effects. It is indicative and is not to be used, in whole or in part, other than for its intended purpose.
 2. Embedded mitigation measures set out in this EMP are described in the following chapters: Landscape and Arboriculture, Ecology, Cultural Heritage, Water Environment, Public Access and Recreation and Noise and Vibration.
 3. The approach to environmental commitments and mitigation for this ES is described in Volume 4, Appendix 20.2 Landscape Proposals sets out the strategy for reinstatement of the trees, shrubs and grassland.
 4. All grass seed mixes and tree species to be agreed with landowners.
 5. Refer to Appendix 6.6 for the Arboricultural Impact Assessment, Figure 6.5 for the Tree Constraints and Assessment Plan and Figure 6.6 for Preliminary Trees at Risk Plan.
 6. Removed field boundaries to be reinstated as per existing.
 7. No in channel works October to May for all other watercourses. All watercourses are potentially used by salmonids from the River Ribble.
 8. ECoW to conduct pre works checks for otter holts of all watercourses where vegetation removal is required in the riparian corridor for creation of bridges, access track, and installation of temporary outfalls. This must include pre commencement monitoring surveys to determine the level of use of the potential otter holts and couches identified on the south bank of the River Ribble.
 9. Watercourses to be protected and any areas impacted (including by bridge abutments, culverts, and outfall works) to be reinstated with same profile and species composition. Steep banks with bare earth to be reinforced with biodegradable geotextile to allow vegetation to re-establish without additional erosion.

0	JE	NF	DB	Final Issue	27/05/2021
VERSION	AUTH	CHKD	REVD	REASON FOR ISSUE	DATE



UNITED UTILITIES WATER LIMITED
 HAWESWATER AQUEDUCT RESILIENCE PROGRAMME
 ENVIRONMENTAL MASTERPLAN
 PAGE 2 OF 2

SCALE 1: 2,500	SHEET SIZE A3
DRAWING NUMBER LCC_RVBC-BO-RC-FIG-020-001	REVISION 0

The copyright of this document, which contains information of a proprietary nature, is vested in United Utilities Water Limited. The content of this document may not be used for purposes other than that for which it has been supplied and may not be reproduced, either wholly or in part, in any way whatsoever. It may not be used by, or its contents divulged to any other person whatsoever without the prior written permission of United Utilities Water Limited. Copyright Acknowledgement: Use of Ordnance Survey map data sanctioned by the controller of H.M. Stationery Office. OS Licence Number 100019326. Crown copyright reserved. Unauthorised production infringes copyright.