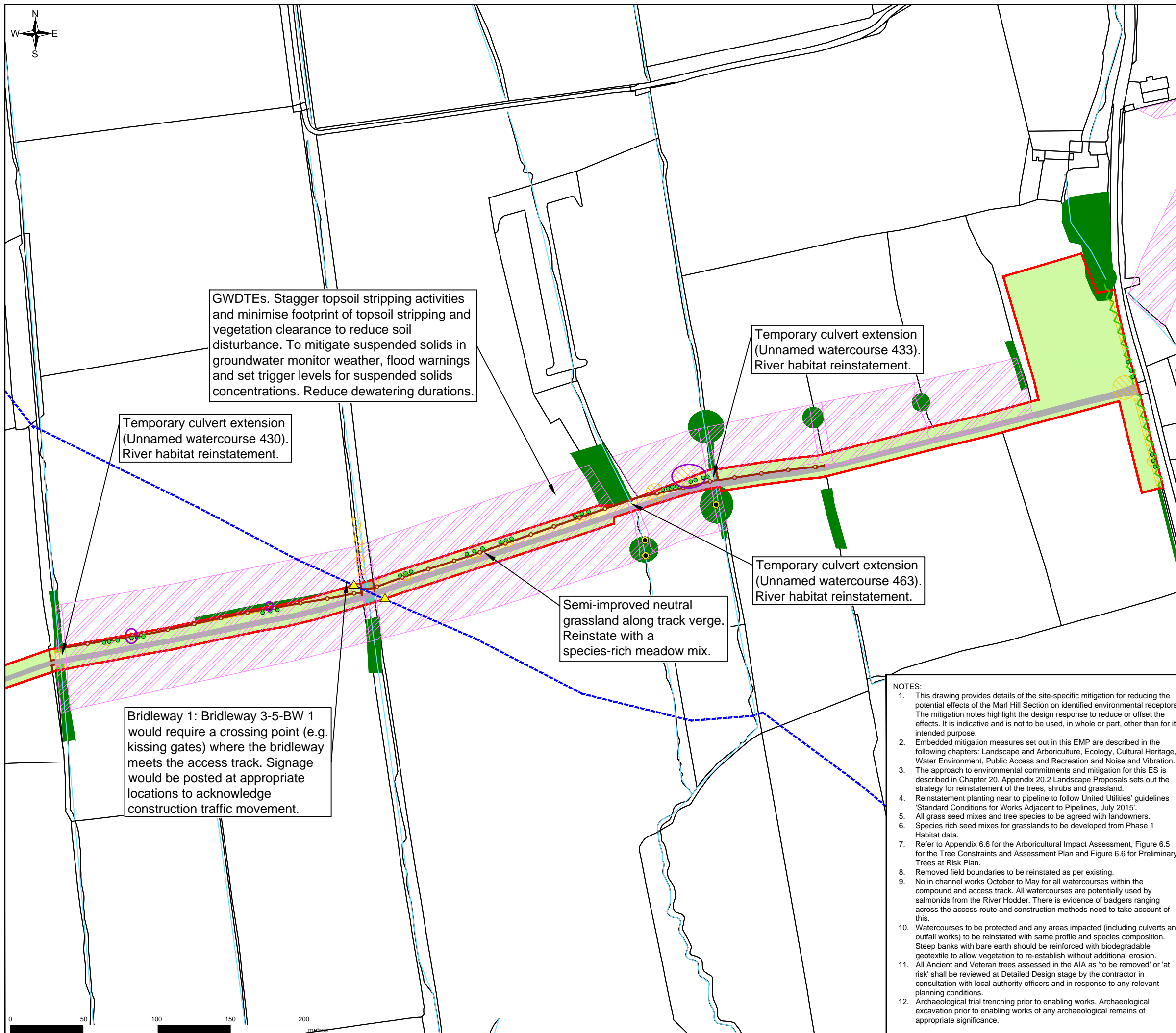


FIGURE 20.1



- Legend**
- Planning Application Boundary
 - Existing running watercourse (to be retained)
 - Existing track / hardstanding (to be retained / reinstated)
 - Existing PRoW (to be retained)
 - Existing vegetation (to be retained)
 - Existing vegetation (at risk of removal)
 - Existing GWDTE
 - Existing veteran tree
 - Bat roost potential tree
 - Proposed tree
 - Proposed woodland planting
 - Proposed reinstated grassland
 - Proposed reinstated species rich grassland
 - Proposed reinstated marshy grassland
 - Proposed temporary PRoW access gate
 - Proposed reinstated hedgerow
 - Proposed reinstated fence

GWDTEs. Stagger topsoil stripping activities and minimise footprint of topsoil stripping and vegetation clearance to reduce soil disturbance. To mitigate suspended solids in groundwater monitor weather, flood warnings and set trigger levels for suspended solids concentrations. Reduce dewatering durations.

Temporary culvert extension (Unnamed watercourse 430). River habitat reinstatement.

Temporary culvert extension (Unnamed watercourse 433). River habitat reinstatement.

Temporary culvert extension (Unnamed watercourse 463). River habitat reinstatement.

Semi-improved neutral grassland along track verge. Reinstated with a species-rich meadow mix.

Bridleway 1: Bridleway 3-5-BW 1 would require a crossing point (e.g. kissing gates) where the bridleway meets the access track. Signage would be posted at appropriate locations to acknowledge construction traffic movement.

- NOTES:**
1. This drawing provides details of the site-specific mitigation for reducing the potential effects of the Marl Hill 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 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. The approach to environmental commitments and mitigation for this ES is described in Chapter 20. Appendix 20.2 Landscape Proposals sets out the strategy for reinstatement of the trees, shrubs and grassland.
 3. Reinstatement planting near to pipeline to follow United Utilities' guidelines 'Standard Conditions for Works Adjacent to Pipelines, July 2015'.
 4. All grass seed mixes and tree species to be agreed with landowners.
 5. Species rich seed mixes for grasslands to be developed from Phase 1 Habitat data.
 6. 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.
 7. Removed field boundaries to be reinstated as per existing.
 8. No in channel works October to May for all watercourses within the compound and access track. All watercourses are potentially used by salmonids from the River Hodder. There is evidence of badgers ranging across the access route and construction methods need to take account of this.
 9. Watercourses to be protected and any areas impacted (including culverts and outfall works) to be reinstated with same profile and species composition. Steep banks with bare earth should be reinforced with biodegradable geotextile to allow vegetation to re-establish without additional erosion.
 10. All Ancient and Veteran trees assessed in the AIA as 'to be removed' or 'at risk' shall be reviewed at Detailed Design stage by the contractor in consultation with local authority officers and in response to any relevant planning conditions.
 11. Archaeological trial trenching prior to enabling works. Archaeological excavation prior to enabling works of any archaeological remains of appropriate significance.
 - 12.

DO	JE	NF	DB	Final Issue	13/05/2021
VERSION	AUTH	CHKD	REVD	REASON FOR ISSUE	DATE



UNITED UTILITIES WATER LIMITED
 HAWESWATER AQUEDUCT RESILIENCE PROGRAMME
 ENVIRONMENTAL MASTERPLAN
 PAGE 4 OF 4

SCALE 1: 2,500	SHEET SIZE A3
DRAWING NUMBER RVBC-MH-FIG-020-001	REVISION D0

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.