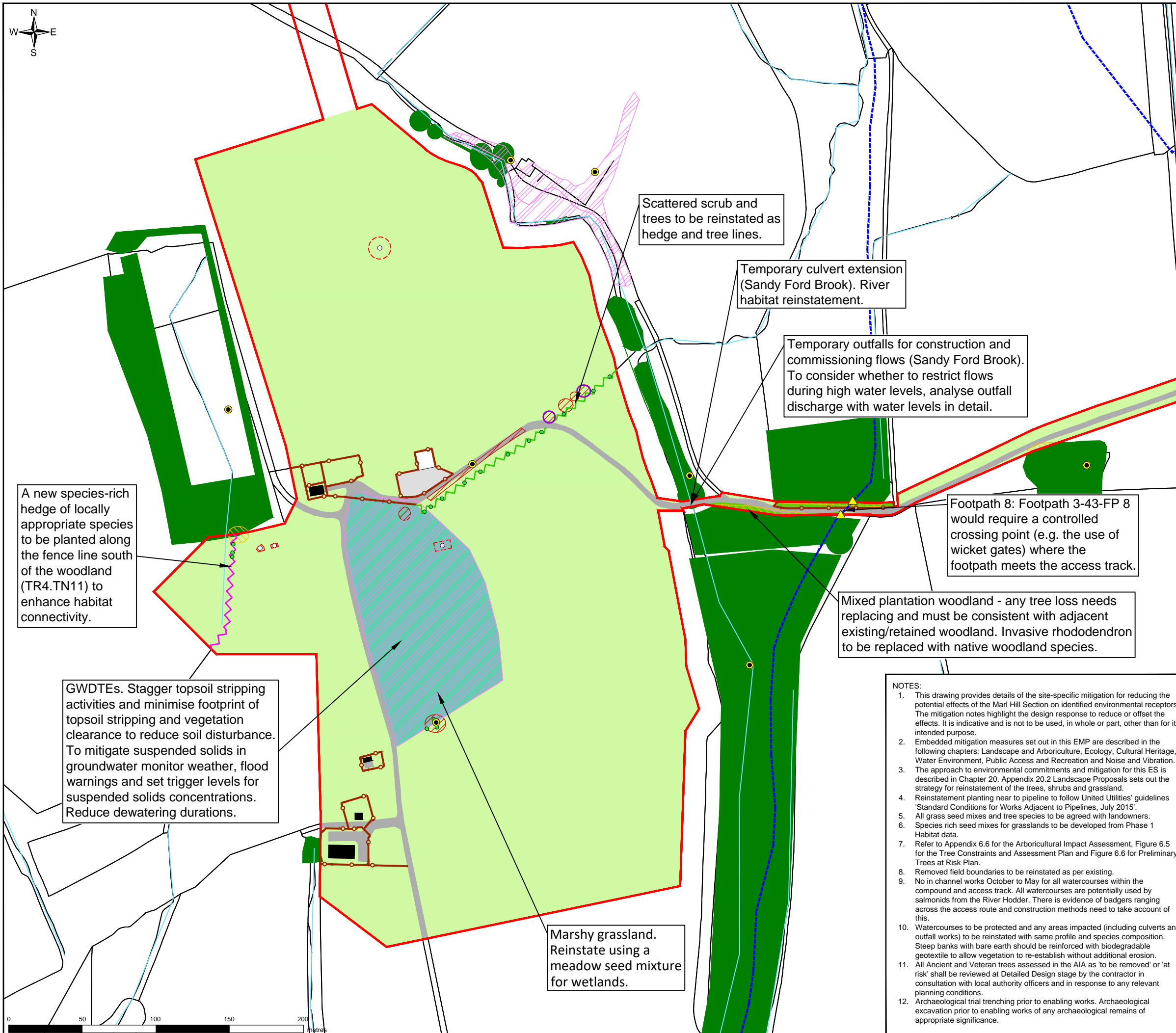


FIGURE 20.1



Legend

[Red outline]	Planning Application Boundary
[Blue line]	Existing running watercourse (to be retained)
[Grey line]	Existing track / hardstanding (to be retained / reinstated)
[Blue dashed line]	Existing PRoW (to be retained)
[Black rectangle]	Existing building (to be retained)
[Red hatched box]	Existing vegetation (to be removed)
[Green hatched box]	Existing vegetation (to be retained)
[Yellow hatched box]	Existing vegetation (at risk of removal)
[Pink hatched box]	Existing GWLTE
[Purple circle]	Existing veteran tree
[Yellow circle]	Bat roost potential tree
[Green circle]	Proposed tree
[Light green box]	Proposed reinstated grassland
[Teal box]	Proposed reinstated marshy grassland
[Dark green box]	Proposed woodland planting
[Yellow triangle]	Proposed temporary PRoW access gate
[Red line]	Proposed reinstated fence
[Green zigzag line]	Proposed reinstated hedgerow
[Pink zigzag line]	Proposed species rich hedgerow
[Red dashed circle]	Proposed tunnel shafts / chambers
[Grey rectangle]	Proposed above ground works
[Grey line]	Proposed reinstated track / hardstanding

A new species-rich hedge of locally appropriate species to be planted along the fence line south of the woodland (TR4.TN11) to enhance habitat connectivity.

Scattered scrub and trees to be reinstated as hedge and tree lines.

Temporary culvert extension (Sandy Ford Brook). River habitat reinstatement.

Temporary outfalls for construction and commissioning flows (Sandy Ford Brook). To consider whether to restrict flows during high water levels, analyse outfall discharge with water levels in detail.

Footpath 8: Footpath 3-43-FP 8 would require a controlled crossing point (e.g. the use of wicket gates) where the footpath meets the access track.

Mixed plantation woodland - any tree loss needs replacing and must be consistent with adjacent existing/retained woodland. Invasive rhododendron to be replaced with native woodland species.

GWLTes. 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.

Marshy grassland. Reinstatement using a meadow seed mixture for wetlands.

- 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.
 3. 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.
 4. Reinstatement planting near to pipeline to follow United Utilities' guidelines 'Standard Conditions for Works Adjacent to Pipelines, July 2015'.
 5. All grass seed mixes and tree species to be agreed with landowners.
 6. Species rich seed mixes for grasslands to be developed from Phase 1 Habitat data.
 7. 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.
 8. Removed field boundaries to be reinstated as per existing.
 9. 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.
 10. 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.
 11. 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.
 12. Archaeological trial trenching prior to enabling works. Archaeological excavation prior to enabling works of any archaeological remains of appropriate significance.

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 HAWSWATER AQUEDUCT RESILIENCE PROGRAMME
 ENVIRONMENTAL MASTERPLAN
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