

BAA.2050 Radcliffe and Redvales FRMS Phase 2 Invasive Species Management Plan Hutchinson’s Goit – Bury Road

Contents

1.0	Introduction	2
2.0	Legislation	2
3.0	Scope of works	3
4.0	Site information, invasive species locations, and proposed burial area	4
5.3	Methodology	6
5.0	Monitoring and evaluation	7
6.0	Regulatory notification and permits	7
7.0	Regulatory notification date	Error! Bookma
8.0	Regulatory acceptance of ISMP date	Error! Bookma

1.0 Introduction

BAM Nuttall have produced the below Invasive Species Management plan (ISMP) in advance of the works at Radcliffe and Redvales, Bury Road, Bury, Greater Manchester.

The presence of Japanese knotweed, Himalayan balsam and giant hogweed was identified across the site during a Preliminary Ecological Appraisal reference ENV0000389C in March 2017 and follow up surveys by the author of this report in April 2019.

This plan sets out specific control measures required to prevent the spread of the named invasive non-native species (INNS) during the construction operations in accordance with legal requirements.

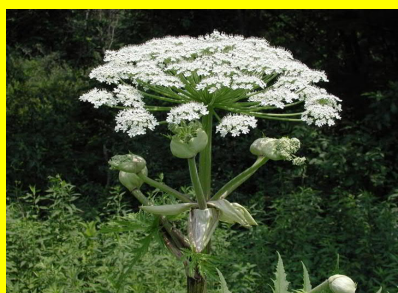
After the project completion any further treatment of invasive species within the site boundary will be carried out by the Local Authority or Environment Agency under their own invasive plant species treatment programme.

The remit of this ISMP is strictly limited to the management of the infested areas identified herein, namely **Hutchinson's Goit** (All other areas including neighbouring and adjoining areas with invasive species are not included in the report)

Japanese knotweed



Giant hogweed



Himalayan balsam



2.0 Legislation

The Wildlife and Countryside Act (1981) (sections 14 to 14P) is the principal legislation dealing with non-native species in the UK. Section 14(1) of the Act makes it illegal to release, allow to escape, or cause an animal to be at a place outside its native range. Section 14(2) makes it illegal to plant or otherwise cause a plant to grow in the wild at a place outside its native range.

Native range is defined in section 14P(2) of the Act as being:

"...the locality to which the animal or plant of that type is indigenous, and does not refer to any locality to which that type of animal or plant has been imported (whether intentionally or otherwise) by any person."

In the UK, invasive non-native species (INNS) are one of the biggest threats to biodiversity. They have a negative impact on native species and can threaten entire natural ecosystems. The potential impact of INNS within the environment can be significant, resulting in both biodiversity and economic implications. Away from their native habitats, non-native species can become the most dominant species in an ecosystem, displacing native species. In some cases such as with Giant hogweed can have an impact on human health whilst Japanese knotweed can impact on building foundations and structures.

3.0 Scope of works

The Radcliffe and Redvales FRMS, led by the Environment Agency in partnership with Bury Council, is designed to protect up to 870 properties from a repeat of the devastating flooding seen on Boxing Day 2015.

The scheme will see more than 3.5 kilometres of flood defences put in place to provide flood protection to the Radcliffe and Redvales communities against a flood with a 1% chance of occurring in any 1 year. The scheme features raised flood defences at key locations along the edge of the River Irwell and is comprised of various elements of structures including earth embankments, concrete walls and piled walls.

It will also include the creation of new wildlife habitat, increased green spaces and amenity areas including improved sports facilities as part of the Radcliffe & Redvales FRMS. Several locations have been identified as areas to be targeted for Water Framework Directive (WFD) mitigation, and another location is to have works installed within a Japanese knotweed, Giant hogweed and Himalayan Balsam infested area.

This document supports the specific planning application (App No. 66697) for the proposed works to the west of Bury Road (referred to as Hutchinson's Goit/Warth Road Bridge) of Phase 2 (Warth Business Park Area). The works will comprise small scale, localised earthworks and modifications to an existing culvert inlet and parapet opening. Construction is expected to begin in February 2022 and be completed by March 2022.

This Invasive Species Management Plan is specifically related to Phase 2 of the scheme.

4.0 Site information and invasive species locations

4.1 Site information

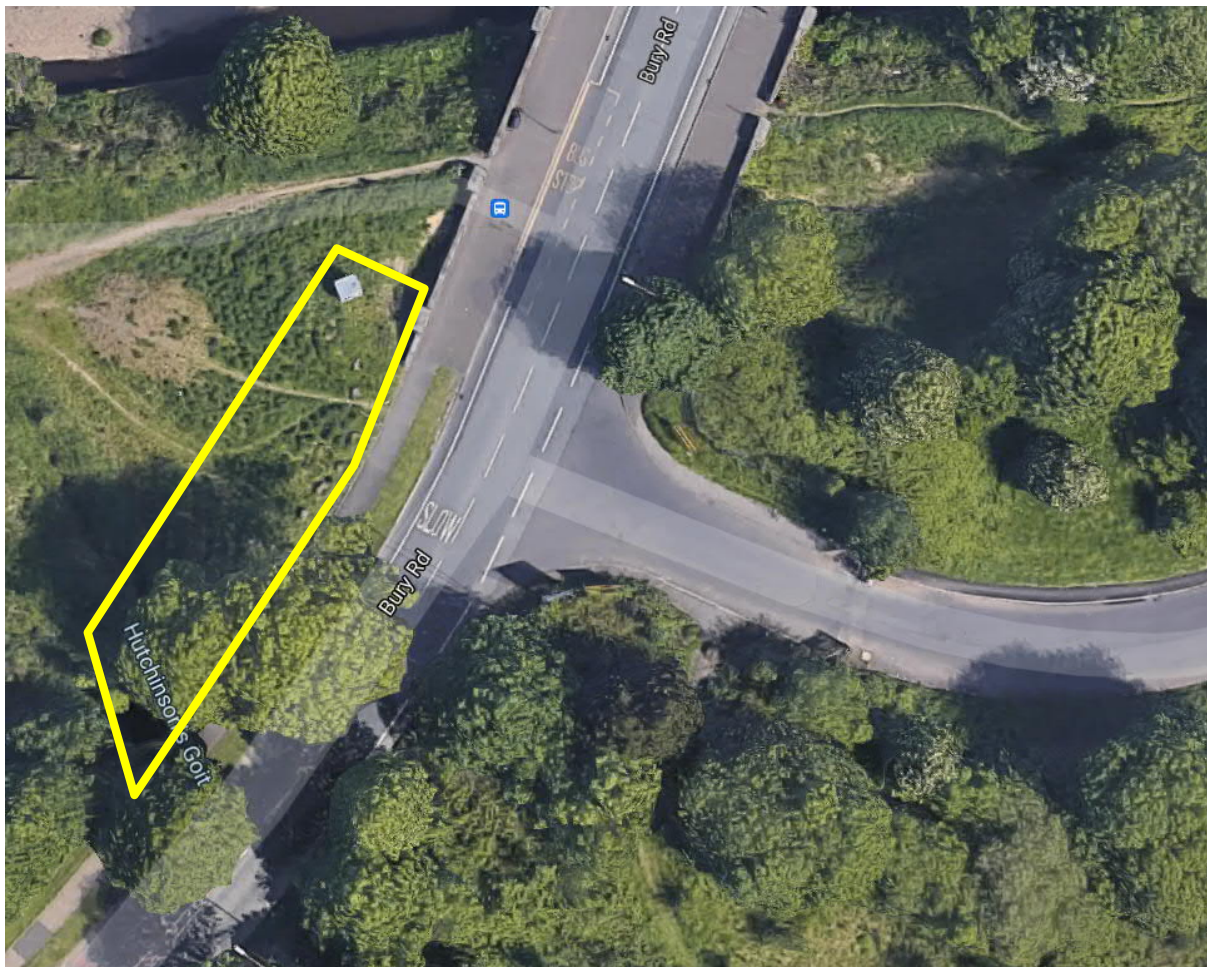
This area of the project is located on Eastbound verge of Bury Road opposite the DHL, Bury Point Site.

4.2: Invasive Species locations

Table 1: Invasive species locations:

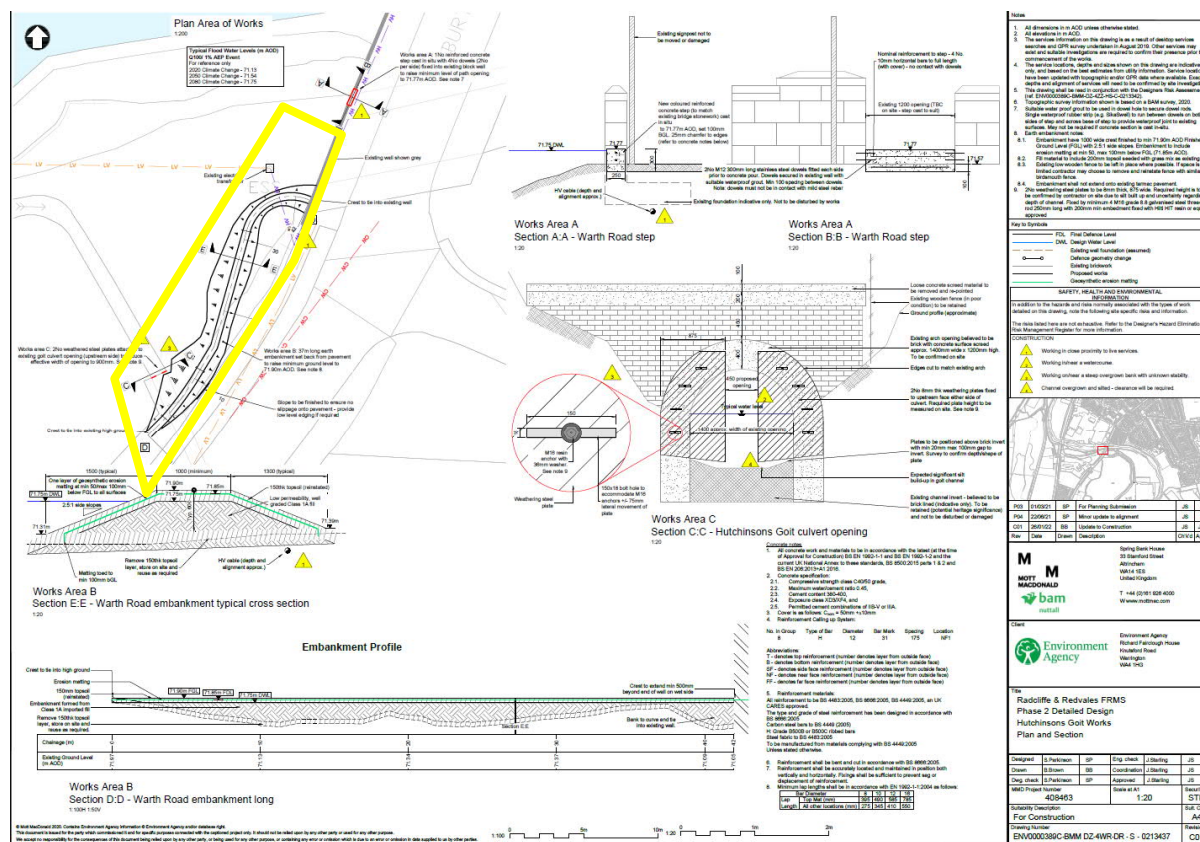
Site name	Grid Reference (site access point)	Invasive species present/potentially present
Hutchinson's Goit	SD 79669 08997	Giant Hogweed Himalayan Balsam Japanese Knotweed

Figure 1: Overall location plan of Hutchinson's Goit Area



- Earthworks within the yellow line

Figure 2: Alignment of new defences to west of Bury Road



- **Earthworks within the yellow line**

4.2.1 Area 1 – West of Bury Road

This area has been reviewed on site 3rd February 2022. Although it is winter and the Invasive species are currently dormant there is no visible signs (e.g. stalks from previous season) of Invasive species having been growing within the immediate works area. However, it is known that they are fairly extensive within the upstream and downstream reaches of the goit and therefore there is a high risk that they may be present within the goit banks.

From experience of working in the area:

- Himalayan Balsam – High Probability
- Giant Hogweed – Medium Probability
- Japanese Knotweed – Medium Probability

5.0 Methodology

For the installation of the new defences

Access and Transportation General

- Access shall be gained off the public highway via TM arrangement agreed with Bury Council Traffic Dept (Deirdre Parsons)
- The works area shall be fenced off, secured and kept clean at all times
- Where site traffic crosses the public highways this will be manned constantly during each shift

Earthworks General

- Only minimal excavation will be carried out. A topsoil strip will be carried out, after this imported materials will be built up on top of the in-situ stripped area.
- Stripped materials will be placed in a bund adjacent to the proposed earthworks for replacement on top of the new bund. This maintains the existing seedbank.
- Excavators shall be selected for the excavation process and will work their way into the area
- All vehicles and personnel will adhere to strict biosecurity measures when leaving areas containing invasive species **(see section 6.0 Biosecurity)**.
- No reversing of vehicles will be acceptable, except when tipping
- Banksman will be present but will stay within the safe working area – Fenced off location visible by the plant

Goit Culvert Works

- An area of the Goit before the culvert will be cleared to make a working area. Approx. 2lm of Goit will be cleared of vegetation. The stripped material is highest risk of being INNS contaminated.
- Excavated material will be replaced along and within the line of the Goit channel
- Once vegetation has been cleared boards will be placed to access and cross the Goit.
- After clearing the bucket of the excavator will be cleaned of organic matter onto the existing Goit area.
- After the culvert works are completed the boards will be lifted. Before removal they will be cleaned in-situ to ensure no INNS contaminated material is removed from site.

6.0 Biosecurity measures

- Plant entering areas containing invasive species shall be restricted **SOLELY** to stripped areas.
- A separate refuelling area will be established for this area, to ensure the plant stays within the restricted areas
- All pedestrians will access the working area down a separate path from the plant
- All pedestrians will clean their footwear as they exit the contaminated areas via boot baths filled with water, boot brushes
- Any arising's from the boot baths will be tipped back onto the contaminated area and refreshed/refilled when required.
- When plant leaves the area, a biosecurity wash-down will be carried out to remove any contaminated material – This shall then be checked by a competent person before being allow to move outside the area.
- Once the works have been completed, the access track shall be left in place and covered with the original material
- No run off will be allowed to enter drains or watercourses

6.2 Fencing

- The whole area shall be fenced off using anti-climb Heras Fencing during the works
- A pedestrian route shall be established within this by using pedestrian barriers and bespoke access points.
- Gates will be installed to ensure no unauthorised access during the working window.

6.3 Signage

- Signage will be erected to notify all plant operatives and personnel of their duties
- Boot baths and vehicle wash down area will be specifically signed, as will restricted access for plant to leave the area.
- Signs will also be erected to notify everyone that they are about to enter a restricted and contaminated zone.

6.4 Communication

- Specific RAMS will be developed and these will be briefed to ALL site personnel to ensure full understanding of the works in hand.
- Adjacent landowners have already been contacted regarding works involving the treatment of invasive species, however they shall be contacted again prior to commencement on site.
- Additional toolbox talks will be held to ensure all site staff and operatives understand the requirements surrounding this process.

7.0 Monitoring and evaluation

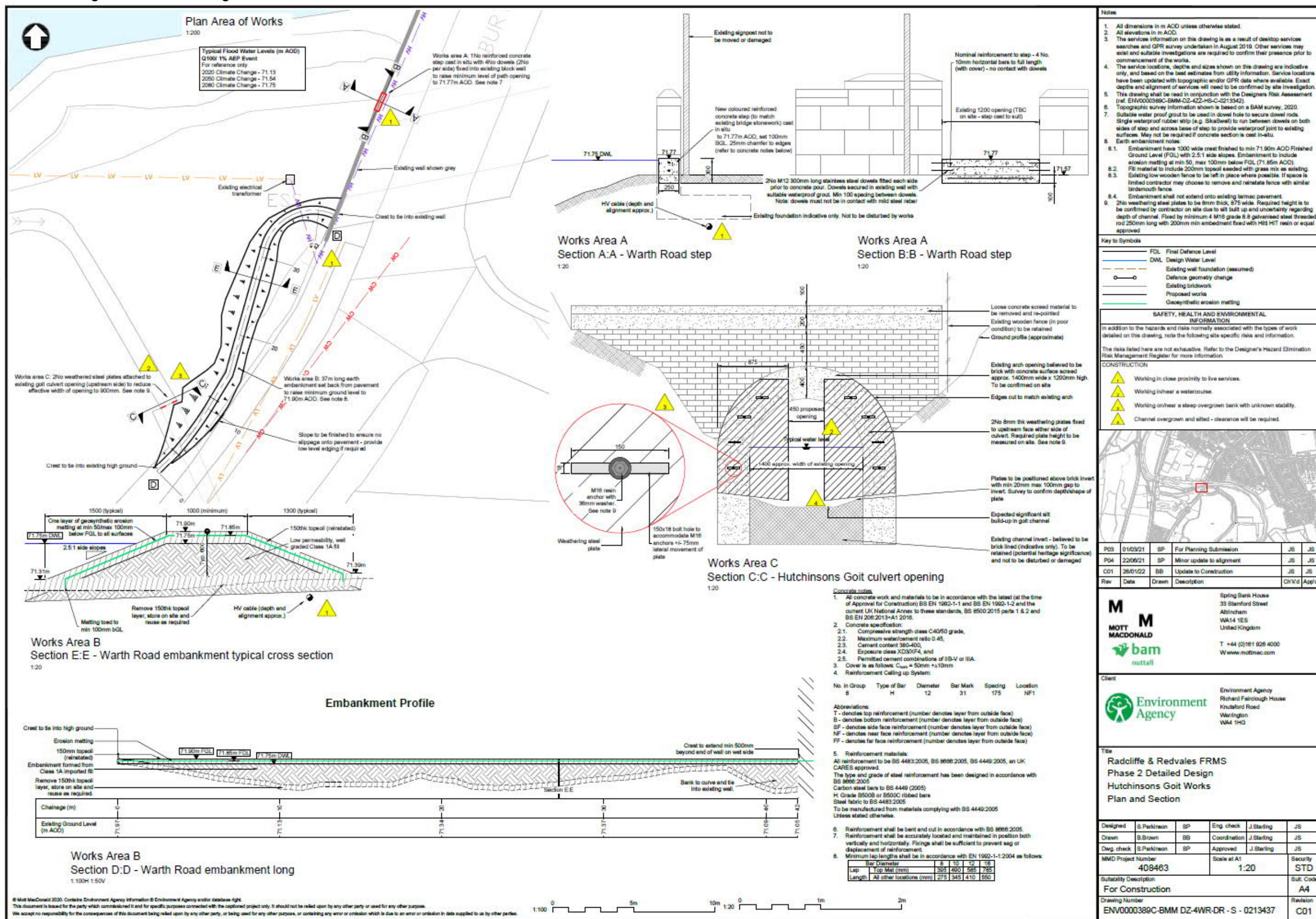
Works will undergo continuous supervision namely via;

- Site staff including foreman, environmental engineer and agent (as required) during operations. Photographic evidence and GPS locations/plans shall be used record excavated and deposited material
- Site inspection by BAM Environment Advisor at an agreed frequency.
- Site visit by Environment Agency/ NEAS Advisor as required.

8.0 Regulatory notification and permits

The Environment Agency will be consulted regarding the proposed management options to be undertaken. With regards to burial the Environment Agency shall be notified one week prior to the works commencing.

General Arrangement Plan and Alignment



Notes																																									
1. All dimensions in m AOD unless otherwise stated.																																									
2. All elevations in m AOD.																																									
3. The service information on this drawing is as a result of desktop service searches and GPR survey undertaken in August 2019. Other services may exist and suitable investigations are required to confirm their presence prior to commencement of the works.																																									
4. The service locations, depths and sizes shown on this drawing are indicative only, and based on the best estimates from utility information. Service locations have been updated with topographic and/or GPR data where available. Exact depths and alignment of services will need to be confirmed by site investigation.																																									
5. This drawing shall be read in conjunction with the Designers Risk Assessment (ref. ENV000389C-BMM-DZ-42Z-HS-C-0213437).																																									
6. Topographic survey information shown is based on a BAM survey, 2020.																																									
7. Suitable water proof grout to be used in dowel hole to secure dowel rods. Single waterproof rubber strip (e.g. SikadBond) to run between dowels on both sides of step and across base of step to provide waterproof joint to existing surfaces. May not be required if concrete section is cast in-situ.																																									
8. Earth embankment notes:																																									
8.1. Embankment have 1000 wide crest finished to min 71.90m AOD Finished Ground Level (FGL) with 2.5:1 side slopes. Embankment to include erosion matting at min 50, max 100mm below FGL (71.85m AOD).																																									
8.2. Fill material to include 200mm topsoil seeded with grass mix as existing.																																									
8.3. Existing low wooden fence to be left in place where possible. If space is limited contractor may choose to remove and reinstatement with similar birdscreen fence.																																									
8.4. Embankment shall not extend onto existing tarmac pavement.																																									
9. 210 weathering steel plates to be 8mm thick, 875 wide. Required height is to be confirmed by contractor on site due to silt built up and uncertainty regarding depth of channel. Fixed by minimum 4 M16 grade 8.8 galvanneal steel threaded rod 250mm long with 200mm min embedment fixed with H8 HT resin or equal approved.																																									
Key to Symbols																																									
FGL Final Defence Level DWL Design Water Level Existing wall foundation (assumed) Defence geometry change Existing brickwork Proposed works Geosynthetic erosion matting																																									
SAFETY, HEALTH AND ENVIRONMENTAL																																									
In addition to the hazards and risks normally associated with the types of work detailed on this drawing, note the following site specific risks and information.																																									
The risks listed here are not exhaustive. Refer to the Designer's Hazard Elimination Risk Management Register for more information.																																									
CONSTRUCTION																																									
Working in close proximity to live services. Working in/over a watercourse. Working on/over a steep overgrown bank with unknown stability. Channel overgrown and silted - clearance will be required.																																									
																																									
<table><tr><td>P03</td><td>01/03/21</td><td>SP</td><td>For Planning Submission</td><td>JS</td><td>JS</td></tr><tr><td>P04</td><td>23/06/21</td><td>SP</td><td>Minor update to alignment</td><td>JS</td><td>JS</td></tr><tr><td>C01</td><td>26/10/22</td><td>BB</td><td>Update to Construction</td><td>JS</td><td>JS</td></tr><tr><td>Rev</td><td>Date</td><td>Drawn</td><td>Description</td><td>Ch'kd</td><td>App'd</td></tr></table>						P03	01/03/21	SP	For Planning Submission	JS	JS	P04	23/06/21	SP	Minor update to alignment	JS	JS	C01	26/10/22	BB	Update to Construction	JS	JS	Rev	Date	Drawn	Description	Ch'kd	App'd												
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Client																																									
Environment Agency Richard Fairclough House Knutsford Road Warrington WM4 1HG																																									
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Radcliffe & Redvales FRMS Phase 2 Detailed Design Hutchinsons Goit Works Plan and Section																																									
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