

Milltown Footbridge

Invasive Species Management Plan



Document Information

Project Title:	Milltown Footbridge
Report Type:	Invasive Species Management Plan
Report Date:	10/04/2025
Author:	Ben Davies and Isobel Haigh
Client:	Bethell
PBA Ref:	PC25008/INNSMP/1.1

Quality Control

Version	Status	Originated/Revised	Checked	Approved	Date
1.0	Submission	B. Davies & I. Haigh	N. Wilkinson	N. Wilkinson	31/03/2025
1.1	Update	I. Haigh	B. Davies	N. Wilkinson	10/04/2025

Declaration of Compliance

This report has been undertaken in accordance with British Standard 42020:2013 “Biodiversity: Code of practice for planning and development” (BSI 2013), the CIEEM’s Code of Professional Conduct (CIEEM 2022) and Guidelines for Ecological Report Writing (CIEEM 2017).

PBA Applied Ecology Ltd
New Croft
Stackhouse Lane
Giggleswick
Settle
North Yorkshire
BD24 0DL
t. 01729 822063
e. enquiries@pba-ecology.co.uk
www.pba-ecology.co.uk

© PBA Applied Ecology Ltd

Table of Contents

1.	Introduction	1
1.1.	Terms of Reference	1
1.2.	Site Location and context	1
1.3.	Legislation.....	2
1.4.	Risks posed by Giant hogweed	3
2.	Biosecurity Approach	3
3.	Survey and Identification of invasive species on the site	3
3.1.	Japanese knotweed information;.....	4
3.2.	Giant hogweed information.....	4
3.3.	Himalayan balsam information	4
4.	Control of the import of invasive species and disease to the site	6
5.	Management of invasive species known to be present on/adjacent to the site7	
5.1.	INNS exclusion zones	8
6.	Removal of invasive species known to be present on/adjacent to site	9
6.1.	South embankment – Japanese knotweed, Himalayan balsam and giant hogweed excavation and transportation as controlled waste.....	9
6.2.	In-situ herbicide treatment – INNS in working area.....	9
6.3.	North embankment – giant hogweed excavation and transportation as controlled waste	10
6.4.	INNS outside of site boundary.....	10
	Appendix A – Monitoring Schedule.....	11
	Appendix B – Phase 1 habitat survey map (Penny Anderson associates , 2021)	16
	Appendix C – Site Plan.....	18

1. INTRODUCTION

1.1. TERMS OF REFERENCE

PBA Applied Ecology Ltd was commissioned by Bethell to develop an Invasive Non-Native Species (INNS) Management Plan for the proposed replacement footbridge at Radcliffe, Bury (SD 79109 07246). Several invasive species have been previously recorded within 2 km of the site of the works. In accordance with the Wildlife and Countryside Act 1981 (as amended) and the Invasive Alien Species (Enforcement and Permitting) Order 2019, the prevention of release into or spread in the wild of a range of invasive species potentially present at the site is required.

1.2. SITE LOCATION AND CONTEXT

The works are to remove existing remnants of an old bridge structure at Radcliffe, Bury, Greater Manchester, and to construct a new bridge in its place (SD 79109 07246, Figures 1 & 2). The previous footbridge in this location collapsed in 2015. The site encompasses the River Irwell and the suburban areas south of Bury.

The wider landscape is dominated by some isolated areas of agricultural and pastoral land surrounded by urban development associated with the towns of Bury and Bolton (see Figures 1 and 2).

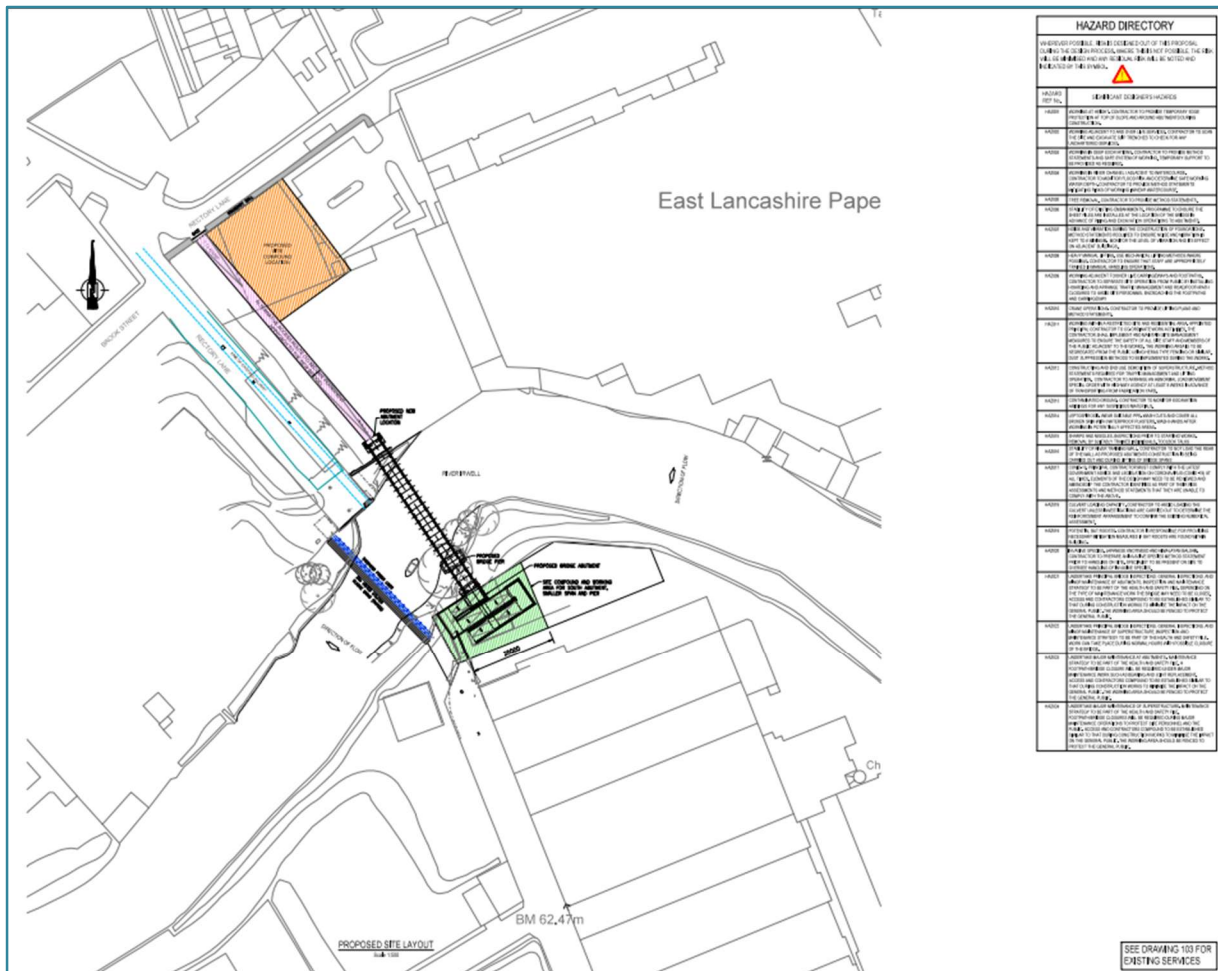


Figure 1: Milltown Street Footbridge Replacement (Wilde Consulting Civil & Structural Engineers, 2022)

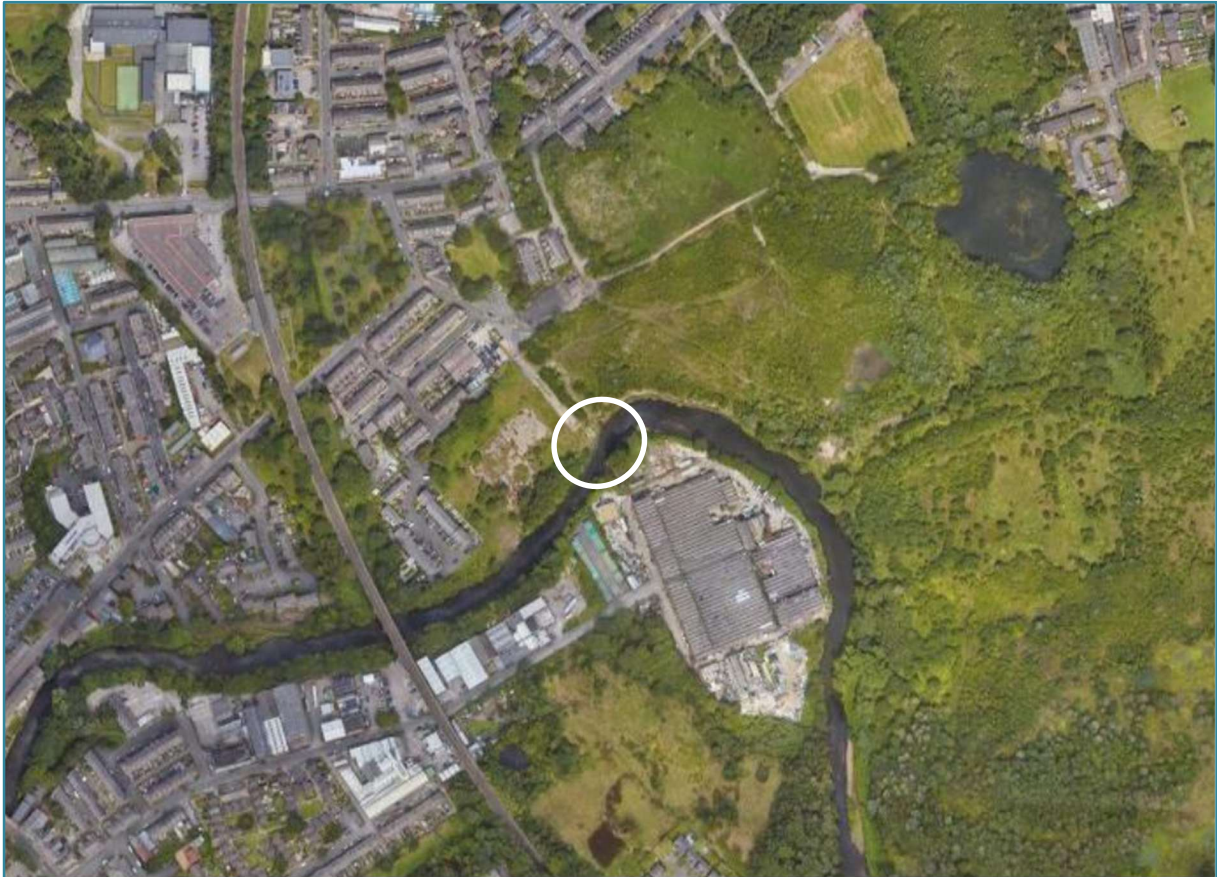


Figure 2: Site context (Google Maps 2025).

1.3. LEGISLATION

Japanese knotweed *Fallopia japonica*, Giant hogweed *Heracleum mantegazzianum*, and Himalayan Balsam *Impatiens glandulifera*. are subject to three principal pieces of legislation within the UK. The following legislative instruments are pertinent to this discussion: the Wildlife and Countryside Act 1981 (as amended) (WCA 1981), the Invasive Alien Species (Enforcement and Permitting) Order 2019 (IAS 2019), and the Environmental Protection Act 1990 (EPA). The primary focus of the WCA 1981 and IAS 2019 is the prevention of the spread of invasive species. The species in question are listed in Schedule 9, Part II of the WCA.

Section 14(2) of the legislation states that “if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence”. The disposal of these plants is regulated primarily by the Environmental Protection Act (EPA) of 1990. These plant species are classified as ‘controlled waste’, and soil containing, or potentially containing, propagules (such as rhizomes or seeds) must therefore be regarded as contaminated. Section 33 of the EPA 1990 creates offences related to the depositing, treating, keeping or disposing of controlled waste without a licence or in a manner likely to cause pollution to the environment.

Section 34 of the EPA 1990 imposes a duty of care on persons involved in the production, importation, disposal, or treatment of controlled wastes. This duty entails the following obligations: (a) The waste must not be disposed of unlawfully (i.e. a requirement for a waste transfer note); (b) the waste must not escape; and (c) the waste must only be transported by a registered carrier. These provisions are set out in the Environmental Protection (Duty of Care) Regulations 1991, and failure to comply with these provisions constitutes an offence. A violation of the WCA 1981 may result in criminal prosecution, including the imposition of fines and imprisonment. Similarly, an infraction of the EPA 1990 may result in enforcement action by the Environment Agency, which could include the imposition of an unlimited

fine. Additionally, there may be liability associated with the financial consequences of the potential spread of invasive species to another site.

1.4. RISKS POSED BY GIANT HOGWEED

The sap of Giant hogweed is toxic and sensitises the skin which leads to severe phytophotodermatitis blistering when exposed to sunlight. The reaction can recur for many years. Giant hogweed is listed under section 9, schedule 14 of the Wildlife and Countryside Act 1981 (as amended) this makes it illegal to plant or otherwise cause Giant Hogweed to grow in the wild in the UK.

2. BIOSECURITY APPROACH

This plan covers three main elements:

- 1) survey and identification of INNS at the site
- 2) control of the import of INNS and disease to the site
- 3) management of INNS known to be present on/adjacent to the site.

A series of mechanisms and processes are established below that provide a framework through which to ensure compliance with current environmental and invasive species regulations.

3. SURVEY AND IDENTIFICATION OF INVASIVE SPECIES ON THE SITE

An INNS survey was completed on site on 13th March 2025 by PBA Applied Ecology and confirmed the presence of one Schedule 9 invasive plant species giant hogweed (Figure 3).

A second INNS survey is to be undertaken in summer when botanical season is optimal. This will identify the status of INNS present on site with further accuracy; informed by the previous PEA and first INNS survey. Following the future survey, this management plan will be amended to record the findings of that future survey, and any changes must be adhered to.

During the original PEA by Penny Anderson Associates, several INNS were identified, with giant hogweed present on both the north banking and south banking. Japanese knotweed and Himalayan balsam were identified on the south banking of the site (Appendix 2).

Several old stands and new growth of giant hogweed was identified on the site during the first survey (Figure 3). The proposed plan includes a working area for the crane, this working area has been fenced off for the presence of giant hogweed and is directly to the north of the River Irwell. Dead stands were identified in this area, and it has been classified as an INNS zone (Figure 3). Other INNS zones have been identified via new growth of giant hogweed in the north and south banking, and in the cracks of walls near the outflow (Figure 3).

Table 1: Coordinate and Grid Reference Locations of INNS present on the 13th March 2025

Target Note (Fig. 3)	Species	Latitude & Longitude	8 Figure Grid Reference
1	Giant Hogweed	53.561458 , -2.3170095	SD 79099 07251
2	Giant Hogweed	53.561434 , -2.3170363	SD 79097 07249
2	Giant Hogweed	53.561167 , -2.3167406	SD 79117 07219
3	Giant Hogweed	53.561402 , -2.3165421	SD 79130 07245
4	Giant Hogweed	53.561882 , -2.3169632	SD 79103 07298

Given the confirmed presence of invasive species within the site boundary it is recommended that site walkovers be conducted by the Ecological Clerk of Works (ECoW) during their routine site visits. These walkovers should be undertaken as an opportunity to document any new growth of invasive species and map their locations.

3.1. JAPANESE KNOTWEED INFORMATION;

Japanese knotweed is a highly invasive species that is capable of spreading through its crown, rhizome, and stem fragments. It is a perennial plant, characterised by distinctive hollow stems with purple spots and 'zigzag' branches. Upon reaching maturity, the plants attain a height of 2–3 metres. The rhizomes are characterised by their thick, woody composition and an orange centre. Japanese knotweed undergoes a period of dormancy during the winter months, followed by a rapid regrowth from March onwards. This is facilitated by the energy stored in the rhizomes. The plant continues to grow until June, after which energy is directed towards flowering (August/September) and replenishing rhizome resources. While most of the root network is concentrated within the first metre of soil, the rhizome system may extend to a depth of 4 metres and a lateral extent of 7 metres from a parent plant.

All Japanese knotweed in the UK is established from a single female clone; as a result, seeds are therefore unviable. The plant's spread is instead facilitated by growth and fragmentation of rhizome, which then disperses by natural processes (e.g. flooding) or anthropogenic disturbance. Even fragments of rhizome as small as 8 g/1 cm can produce a new plant, and rhizome segments can remain dormant in soil for up to twenty years. Additionally, cut fresh stems can also root and regrow.

3.2. GIANT HOGWEED INFORMATION

An abnormally tall umbellifer, up to two to five metres tall, giant hogweed displays large umbrella-like clusters of white flowers. It has a purple-blotched stem, and its leaves are jagged and large. The sap of Giant hogweed is toxic and sensitises the skin which leads to severe phytophotodermatitis blistering when exposed to sunlight (Blistering burns that flare up in response to UV light). The reaction can recur for many years. Giant hogweed is listed under section 9, schedule 14 of the Wildlife and Countryside Act 1981 (as amended) this makes it illegal to plant or otherwise cause Giant Hogweed to grow in the wild in the UK.

Seeds take several years to germinate and are viable in the soil for up to 15 years. The stems of the plant are hollow and can collect the phototoxic sap within it. Seeds, from giant hogweed flowers, dropped in streams can float for three days. They can move long distances via water in ditches and streams, so it is important to start a removal process before flowering and to set up prevention methods from plant matter entering a watercourse. Seeds can also be spread up to 10 m by wind.

Giant Hogweed grows early in the botanical season, and grows large leaves that shade other plants, out-competing native species. When Giant Hogweed inhabits watercourse embankments, it dies in the autumn and leaves soil exposed; leading to increased erosion and siltation.

3.3. HIMALAYAN BALSAM INFORMATION

Himalayan balsam is an annual herbaceous plant species that produces a large number of flowers and subsequently seed pods. The seed pods open explosively upon contact, dispersing hundreds of seeds over a considerable distance. The seeds remain dormant in the soil for up to three years and have been observed to occur in densities exceeding 5,000 per square metre. Mitigation strategies must therefore aim to avoid disturbing the seedpods and to prevent the transfer of infested soil beyond the site.

Himalayan balsam grows in dense stands and at large heights, shading other ground flora, and over-crowding areas of soil. This out-competes many native species; additionally, the plant produces large amounts of nectar in comparison with native flowering plants, which lead native plants not being pollinated. It has a shallow root system and does not stabilise soil, putting watercourse banks at high risk of erosion when established by Himalayan balsam.

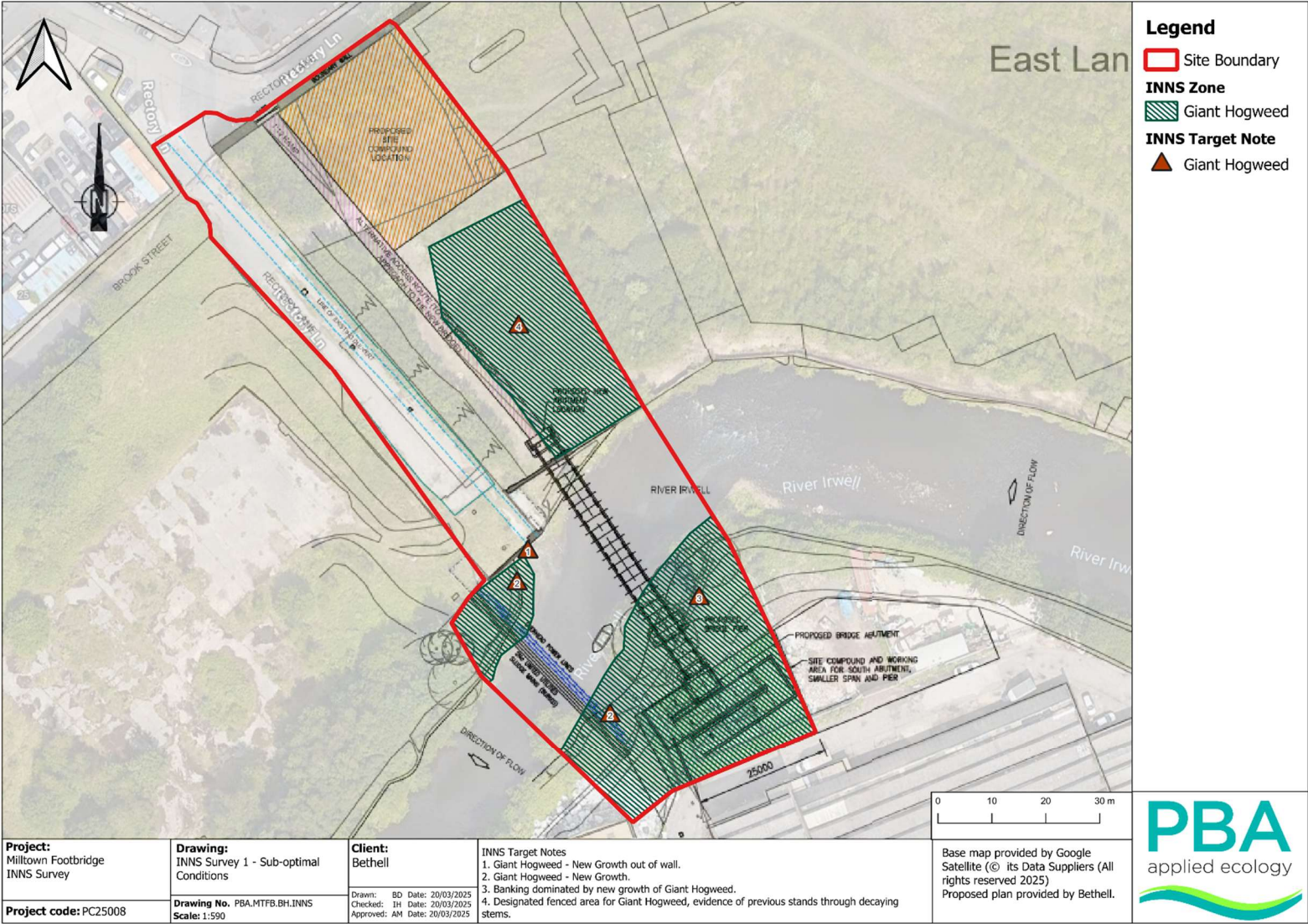


Figure 3: Results of first INNS survey; designated location of INNS and contaminated areas.

4. CONTROL OF THE IMPORT OF INVASIVE SPECIES AND DISEASE TO THE SITE

It is essential that all personnel and equipment entering the site are subject to a series of biosecurity actions prior to and upon arrival at Milltown footbridge. These actions must be undertaken for any equipment or personnel that has the potential to interact with the INNS on site in any way (including equipment for removal, management, travel around site, during breaks or in response to emergency scenarios).

It is the responsibility of the site manager to ensure that these checks and actions are undertaken. Compliance with these actions will be checked at least weekly by the project Ecological Clerk of Works (ECoW) and reported biweekly.

The actions are set out below:

- 1) All plant and equipment should undergo the 'check, clean, dry' biosecurity process prior to arrival on site.
- 2) The condition of all plant and equipment should be checked upon arrival by the site manager ensuring that it is completely clean and dry prior to being allowed onto the site; this information should then be recorded by the site manager. All contractors should be made aware of this requirement prior to their arrival on site.
- 3) Prior to the commencement of operations at the site, the site manager is required to ascertain and confirm the final location and deployment of all equipment that will be on site. This information must then be discussed with the project ECoW.
- 4) Any equipment used on site that comes into contact with the surface after interacting with INNS or being in the vicinity of INNS must undergo a thorough disinfection prior to deployment.
- 5) Washing stations should be installed at the entrance to each site compound, where staff can clean any PPE or equipment daily prior to surfaces after contact with INNS or surfaces around INNS.

It must be confirmed that any soil or materials imported to the site are sourced from an area that is free from all invasive non-native plant species.

5. MANAGEMENT OF INVASIVE SPECIES KNOWN TO BE PRESENT ON/ADJACENT TO THE SITE

A series of measures must be implemented at the site to prevent the spread of invasive plant species from the site to the surrounding area and to other offsite locations through the transportation of plant material on personnel or equipment. These include the following:

- 1) Himalayan balsam, Japanese knotweed, and giant hogweed plants identified near the working area, but not requiring removal, should be clearly marked, and an 8-metre exclusion zone is established and marked around them. Figure 3 can inform the early establishment of exclusion zones in accordance with the designated Giant Hogweed INNS zones. As the first survey was conducted in sub-optimal botanical season, INNS exclusion zones may need to be modified and extended in accordance with the presence of INNS on site during the botanical season.
- 2) All personnel must be comprehensively briefed on the potential for, and the presence of, invasive species as well as the necessary measures required to contain them. All personnel will be informed of the dangers of giant hogweed and understand the importance of only handling giant hogweed plant matter with machinery if it is to be moved after herbicide spraying or removal.
- 3) All personnel must wash PPE and equipment that becomes contaminated with soil prior to departure each day. This should be included in a sign in/out sheet to allow for ECoW checks,
- 4) A plant and equipment washdown area should be established for the purpose of cleaning all plant and equipment prior to their deployment to other sites. The water used for this purpose should be subject to control measures to prevent its discharge into drains or watercourses.
- 5) An ECoW should be present during the excavation process of INNS on site to identify any germinating plants and determine whether the material can be stockpiled on site (>8-metre) or removed as controlled waste. It is acknowledged that there is a residual risk that small fragments of Himalayan balsam, Japanese knotweed, and giant hogweed may remain on site. However, the excavated material can be removed as controlled waste.
- 6) The ECoW will monitor the distribution of invasive species on site during routine site visits and notify the project team of any new plant growth. It is recommended that all INNS matter that is not removed from site as controlled waste are left in a dry, sunlit, area to decompose on-site. This procedure should be undertaken by suitably experienced personnel who are confident in the identification of the plant in the field at varying growth stages. An exclusion fence should then be erected around this pile of plant matter to reduce the risk of personnel being injured by giant hogweed. Any plant matter that needs to be moved to this dry, sunlit, area must be moved by machinery to avoid giant hogweed sap injuring personnel.
- 7) The ECoW will monitor the distribution of invasive species on site during routine site visits and notify the project team of any new plant growth. If new growth of an INNS is identified within 8-metre of the working area, this will be marked with an 8-metre exclusion zone and treated using herbicide spray (recommended over excavation/stem injection for immature plants).
- 8) **Due to the close vicinity of the River Irwell; any herbicide spraying required that is to take place on the banks of the River Irwell must be appropriately managed and pollution prevention measures will be implemented to prevent run-off of herbicide into the River Irwell.**

5.1. INNS EXCLUSION ZONES

Designated INNS exclusion zones will be set up on the site at the same location INNS have been identified, and will remain even after excavation, storage, or herbicide treatment for monitoring purposes during the works on site. The INNS exclusion zones must be established one week before the enabling works take place, including fencing and de-vegetation works. These INNS exclusion zones should have an 8-metre buffer from the edge of the INNS. The INNS exclusion zone must be set up with the following conditions:

- An 8-metre works exclusion zone is required around stockpiled arisings resulting from invasive species management.
- Arisings must be placed upon a geotextile surface if stockpiled, with the geotextile also going to licenced landfill upon removal. If a geotextile surface is not practicable, then the ground substrate shall be surface scraped to ensure the removal of all arisings from site. The surface scrape shall also go to licenced landfill.
- Measures to ensure that arisings from invasive species removal do not spread by wind or rain.

When stockpiled must also be addressed a week before the works commence, and all personnel on site must be made aware of these exclusion zones by the site manager and ECoW. All INNS exclusion zones will be set up with Heras fencing and an information sign detailing:

1. There is INNS within the fenced area.
2. It is an exclusion zone with no entry unless authorised by the site manager and ECoW for protocols related to herbicide treatment and monitoring purposes.
3. Any individual which enters this INNS exclusion zone will have to undergo the strict biosecurity measures, “check, clean, dry,” established on-site to clean their PPE and equipment.

The following INNS to be excavated and transported as controlled waste from the south embankment of the River Irwell in the immediate works area must be stored on site elsewhere for transportation as controlled waste, an INNS exclusion zone must be set up and the excavated material stored in a tip within the INNS exclusion zone before transportation as controlled waste. If any additional INNS on site is deemed to be treated as controlled waste from site, it must undergo this same process.

6. REMOVAL OF INVASIVE SPECIES KNOWN TO BE PRESENT ON/ADJACENT TO SITE

6.1. SOUTH EMBANKMENT – JAPANESE KNOTWEED, HIMALAYAN BALSAM AND GIANT HOGWEED EXCAVATION AND TRANSPORTATION AS CONTROLLED WASTE

The most effective method for the removal of the Japanese knotweed, Himalayan balsam, and giant hogweed within the immediate working area of the south embankment is through the uprooting and excavation of the plant on the site. The process will necessitate the complete removal of the above-ground plant material and root systems. It is also advisable to excavate the soil surrounding the designated area to remove any dispersed rhizomes, or seeds.

Given the probable persistence of rhizomes, and plant matter (and thus seeds) in the environment, it is advisable to deposit material within the designated exclusion zone for monitoring purposes, in order to facilitate the identification of regrowth from intact rootstock or seedlings. Subsequent regrowth can be treated with herbicide. If any material containing, or potentially containing, the listed, INNS is to be removed from the site, it must be classified as controlled waste in accordance with Section 33 of the Environmental Protection Act 1990. The accumulation of contaminated plant material, roots, and soil should be left on the site with an exclusion zone of greater than eight metres to decompose or to be disposed of as controlled waste in a licensed landfill. Biosecurity measures should be implemented to prevent the dispersal plant matter within and beyond the site.

An ECoW would be required during the excavation process to identify Japanese knotweed rhizomes. Best endeavours would be applied to remove all contaminated soil, without generating excess waste. If all rhizome is removed, the area is free from Japanese knotweed and should prevent re-growth within the application site. However, there is a potential for residual risk of small fragments of Japanese knotweed remaining on site, and post-completion monitoring will be implemented.

In accordance with the survey conducted by Japanese Knotweed Ltd. in July 2024, the depth of the INNS on the south embankment has been identified as 1.5 metres for the Japanese Knotweed, and 300mm depth for the giant hogweed and Himalayan balsam. The excavation depth must be a minimum of 1.5 metres of the south bank to excavate the required INNS in accordance with Japanese Knotweed Ltd.'s report. It is proposed that all material will be excavated on the upper riverbank of the south embankment, behind the 1.8 m high retaining wall, and removed from site immediately using a controlled waste transporter and taken to a licenced landfill site, in accordance with the Environmental Protection Act 1990. The INNS that will remain present on the lower riverbank will be fenced off and treated with herbicide spray, as explained in section 6.2.

6.2. IN-SITU HERBICIDE TREATMENT – INNS IN WORKING AREA

The most effective method for the complete removal of Japanese knotweed, Giant Hogweed, and Himalayan balsam is through the application of herbicides. The most commonly used herbicide to treat these INNS is glyphosate-based. The application of herbicide can take between three and seven years of repeated treatment before successful removal.

INNS present on site within the working area that will disrupt personnel, and machinery, must undergo a recommended course of treatment which entails the tri-annual application of herbicide through spray techniques. The optimal timing for this treatment is first during early spring, for giant Hogweed and Japanese knotweed (April/May), secondly during mid-summer for Himalayan balsam, giant hogweed, and Japanese knotweed (July). A third spray of herbicide will be conducted in (late September/October). This approach aims to reduce energy release and subsequent transport to the rhizomes, reduce and eradicate early growth of listed INNS, and ensure the control of INNS growth on site throughout the botanical season.

For INNS which will remain on the lower riverbank of the southern embankment post-, three years of herbicide treatment is required to manage and remove INNS adjacent to the bridge; this is to protect the

public and footbridge's integrity from INNS that could harm individuals or erode the embankment. A notable decline in the plant's growth and persistence should be observed after three years. To ensure the most effective outcome, the treatment should be continued for at least five years or until no regrowth is evident. An annual monitoring schedule will be implemented to monitor the INNS surrounding the footbridge (Appendix A).

It should be noted that herbicide treatment has the potential to fail in a five-year period and may not eradicate the INNS on site, it will remain present in the location and can be dormant for a number of years.

6.3. NORTH EMBANKMENT – GIANT HOGWEED EXCAVATION AND TRANSPORTATION AS CONTROLLED WASTE

It is proposed that any areas affected by Giant Hogweed on this embankment will be excavated to 300 mm depth. This material will then be stored in a bund on site, within the compound and will be sprayed/treated as necessary. This bund will then be removed from site by a licensed controlled wastage removed and taken to a licenced landfill site.

6.4. INNS OUTSIDE OF SITE BOUNDARY

Any INNS present outside of the working area (site boundary) is subject to a current spraying routine by the landowner (Homes England), which will continue throughout the proposed works and thereafter.

APPENDIX A – MONITORING SCHEDULE

The monitoring schedule for pre-works and during the works applies to any INNS inside Bethell's working area. Exceptions to this include specified methodologies for removal of a section of identified INNS, detailed in Sections 6.1 and 6.3 of this management plan. Once removed, following the processes detailed in Sections 6.1 and 6.3 of this management plan, any new re-growth on these sections within the site boundary must then adhere to the monitoring schedule.

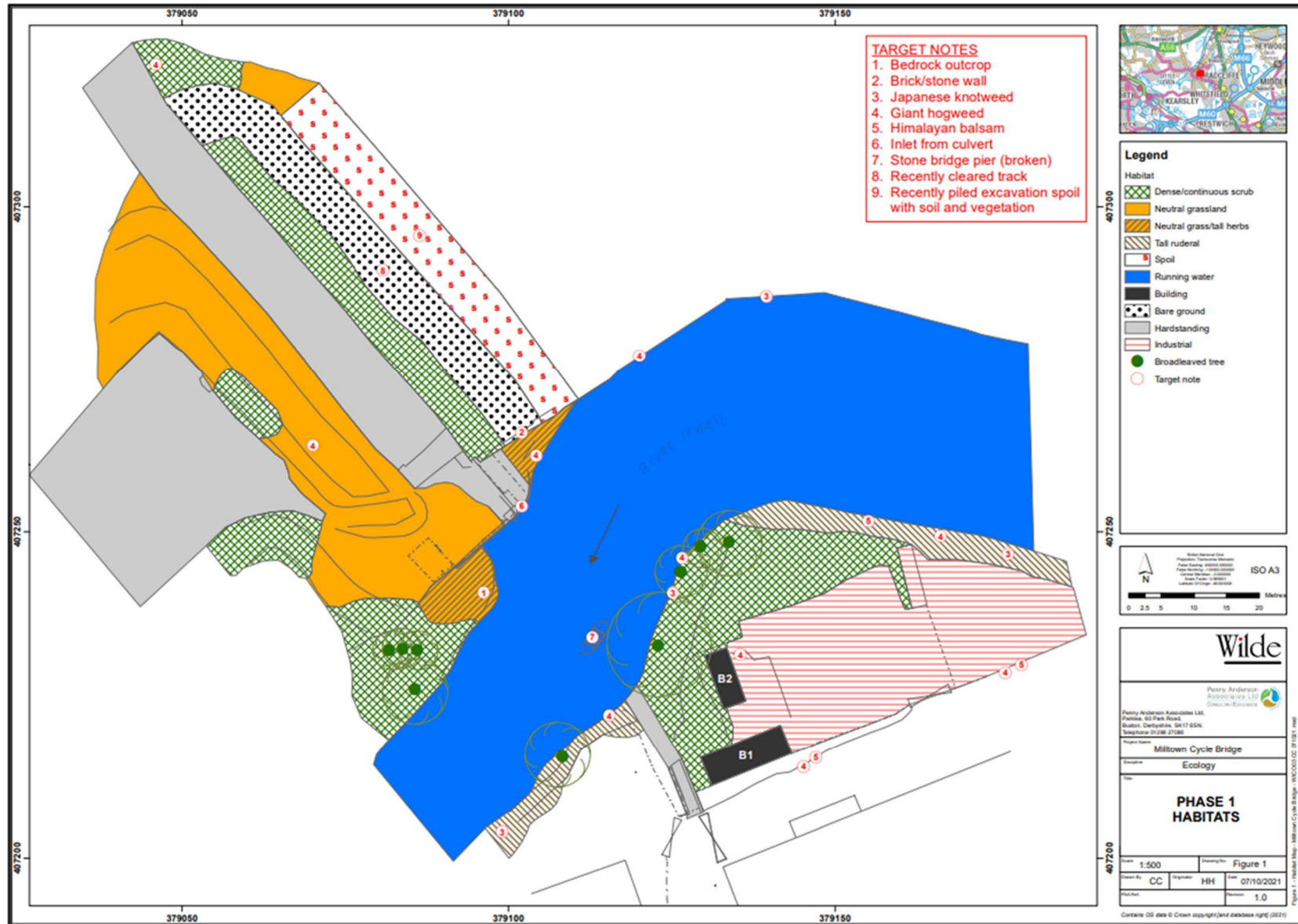
Invasive non-native species	Tasks & Monitoring Schedule				
	Pre-Works	During Works	Year 1	Year 2	Year 3
Japanese Knotweed	Areas indicated as INNS zones in the survey area (Figure 3) must be sprayed with herbicide by suitably qualified personnel, or the contaminated soil excavated. Any biological matter, plant and soil, must be left on site in an area that does not interfere with the works and personnel are aware of. Alternatively, excavated material must be treated as controlled waste and transferred to a licenced landfill site that accepts waste containing INNS and traces of INNS. INNS zones in Figure 3 that may extend outside of Bethell's working area following the survey are subject to the current spraying routine by the landowner (Homes England), which will continue throughout the proposed works and thereafter.	Areas treated with herbicide or excavated for INNS must be continually monitored by personnel and the ECoW on site should record any new growth. On the event there is new re-growth, further excavation or herbicide spraying accompanied by an ECoW should take place. INNS that extend outside of Bethell's working area are subject to the current spraying routine by the landowner (Homes England), which will continue throughout the proposed works and thereafter.	Areas surrounding the new footbridge must be continually monitored by the responsible parties for the management of INNS surrounding the bridge. On the event there is new re-growth, further herbicide spraying will be required to control INNS surrounding the bridge's immediate vicinity, this task will be undertaken by a suitably qualified team or individual with the relevant herbicide training and certifications.	Areas surrounding the new footbridge must be continually monitored by the responsible parties for the management of INNS surrounding the bridge. On the event there is new re-growth, further herbicide spraying will be required to control INNS surrounding the bridge's immediate vicinity, this task will be undertaken by a suitably qualified team or individual with the relevant herbicide training and certifications.	Final monitoring of the INNS surrounding the footbridge. Herbicide spray of the Japanese knotweed stand if present next to the bridge. This task will be undertaken by a suitably qualified team or individual with the relevant herbicide training and certifications. If there are continuous signs of re-growth at this stage, evaluation of next steps for removal should take place with a suitably qualified ecologist.

	Areas treated with herbicide or excavated for INNS must be continually monitored by personnel and the ECoW on site for any new growth. New growth must be recorded.				
Giant Hogweed	Areas indicated as INNS zones (Figure 3) must be sprayed with herbicide by suitably qualified personnel, or the contaminated soil excavated. Any biological matter, plant and soil, must be left on site in an area that does not interfere with the works and personnel are aware of. Alternatively, excavated material must be treated as controlled waste and transferred to a licenced landfill site that accepts waste containing INNS and traces of INNS. Areas treated with herbicide or excavated for INNS must be continually monitored by personnel and the ECoW, during site visits, for new growth. This	Areas treated with herbicide or excavated for INNS must be continually monitored by personnel and the ECoW on site visits for new growth. For giant hogweed, a second application of herbicide in late-summer should be undertaken to address any regrowth or new seedlings. On the event there is new re-growth past the second application, further excavation or	Areas surrounding the new footbridge must be continually monitored by the responsible parties for the management of INNS surrounding the bridge. This is for public safety due to the presence of giant hogweed. In the event there is new re-growth, further herbicide spraying will be required to control INNS surrounding the bridge's immediate vicinity, this task will be undertaken by a suitably qualified team or individual with the relevant	Areas surrounding the new footbridge must be continually monitored by the responsible parties for the management of INNS surrounding the bridge. This is for public safety due to the presence of giant hogweed. In the event there is new re-growth, further herbicide spraying will be required to control INNS surrounding the bridge's immediate vicinity, this task will be undertaken by a suitably qualified team or individual with the relevant herbicide training and certifications.	Final monitoring of the INNS surrounding the footbridge. Herbicide spray of the giant hogweed stands if present next to the bridge. This task will be undertaken by a suitably qualified team or individual with the relevant herbicide training and certifications. If there are continuous signs of re-growth at this stage, evaluation of next steps for removal should take place with a suitably qualified ecologist.

	growth must be recorded. INNS zones in Figure 3 that may extend outside of Bethell's working area following the survey are subject to the current spraying routine by the landowner (Homes England), which will continue throughout the proposed works and thereafter.	herbicide spraying accompanied by an ECoW should take place. INNS that extend outside of Bethell's working area are subject to the current spraying routine by the landowner (Homes England), which will continue throughout the proposed works and thereafter.	herbicide training and certifications.		
Himalayan Balsam	Areas indicated as INNS zones (Figure 3) must be sprayed with herbicide by suitably qualified personnel, or the contaminated soil excavated. Any biological matter, plant and soil, must be left on site in an area that does not interfere with the works and personnel are aware of. Alternatively, excavated material must be treated as controlled waste and transferred to a licenced landfill site that accepts waste containing INNS and traces of INNS.	Areas treated with herbicide or excavated for INNS must be continually monitored by personnel and the ECoW on site visits for new growth. On the event there is new re-growth past the second application, further excavation or herbicide spraying accompanied by an ECoW should take place.	Areas surrounding the new footbridge must be continually monitored by the responsible parties for the management of INNS surrounding the bridge. On the event there is new re-growth, further herbicide spraying will be required to control INNS surrounding the bridge's immediate vicinity, this task will be undertaken by a suitably qualified team or individual	Areas surrounding the new footbridge must be continually monitored by the responsible parties for the management of INNS surrounding the bridge. On the event there is new re-growth, further herbicide spraying will be required to control INNS surrounding the bridge's immediate vicinity, this task will be undertaken by a suitably qualified team or individual with the relevant herbicide training and certifications.	Final monitoring of the INNS surrounding the footbridge. Herbicide spray of the Himalayan balsam stands if present next to the bridge. This task will be undertaken by a suitably qualified team or individual with the relevant herbicide training and certifications. If there are continuous signs of re-growth at this stage, evaluation of next steps for removal should take place with a suitably qualified ecologist.

	Areas treated with herbicide or excavated for INNS must be continually monitored by personnel and the ECoW should record any new growth on their site visits. INNS zones in Figure 3 that may extend outside of Bethell's working area following the survey are subject to the current spraying routine by the landowner (Homes England), which will continue throughout the proposed works and thereafter.	INNS that extend outside of Bethell's working area are subject to the current spraying routine by the landowner (Homes England), which will continue throughout the proposed works and thereafter.	with the relevant herbicide training and certifications.		
--	---	---	---	--	--

**APPENDIX B – PHASE 1 HABITAT SURVEY MAP (PENNY ANDERSON
ASSOCIATES , 2021)**



APPENDIX C – SITE PLAN

