

2021/1049 Land at Smithies Marsh
Biodiversity Comments Response

June 2022

Client:	Yorkshire Wildlife Trust	
Site Address:	Smithies Marsh, Smithies Lane Barnsley	
Central grid reference:	SE 3445 0815	
Revision:	2	
Prepared by:	Helen Norford BA (hons), MSc Natural England Bat Class 2 Licence: 2015-10170-CLS-CLS; Natural England Great Crested Newt Class 1 Licence: 2016-22838-CLS-CLS.	13/06/2022
Approved by:	Jeff Lunn BEM, BSc, MPhil, CEnv, MCIEEM	17/06/2022

Summary

Scheme proposals include:

- Re-profiling of 3 no. sections of the northern bank of the River Dearne totalling 250 m in length
- Creation of 3 no. shallow > 0.75 m deep ponds
- Creation of 5 no. shallow > 0.75 m deep scrapes

See Appendix 1 for Site proposals plan

Desk top survey

The Natural England Multi-Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk) was consulted for information on statutory designated sites of nature conservation interest.

Barnsley Biological Records Centre, South Yorkshire Badger Group and South Yorkshire Bat Group were consulted for records of statutory and non-statutory designated sites of nature conservation interest, within 1 km of the survey area. These records are considered to provide a good representation of the local area as the surrounding land outside of the Site.

Information returned from these sources (no records were returned from South Yorkshire Badger Group) is incorporated within this report in relevant sections. A full list of species is available on request.

Designated sites

Nationally designated sites

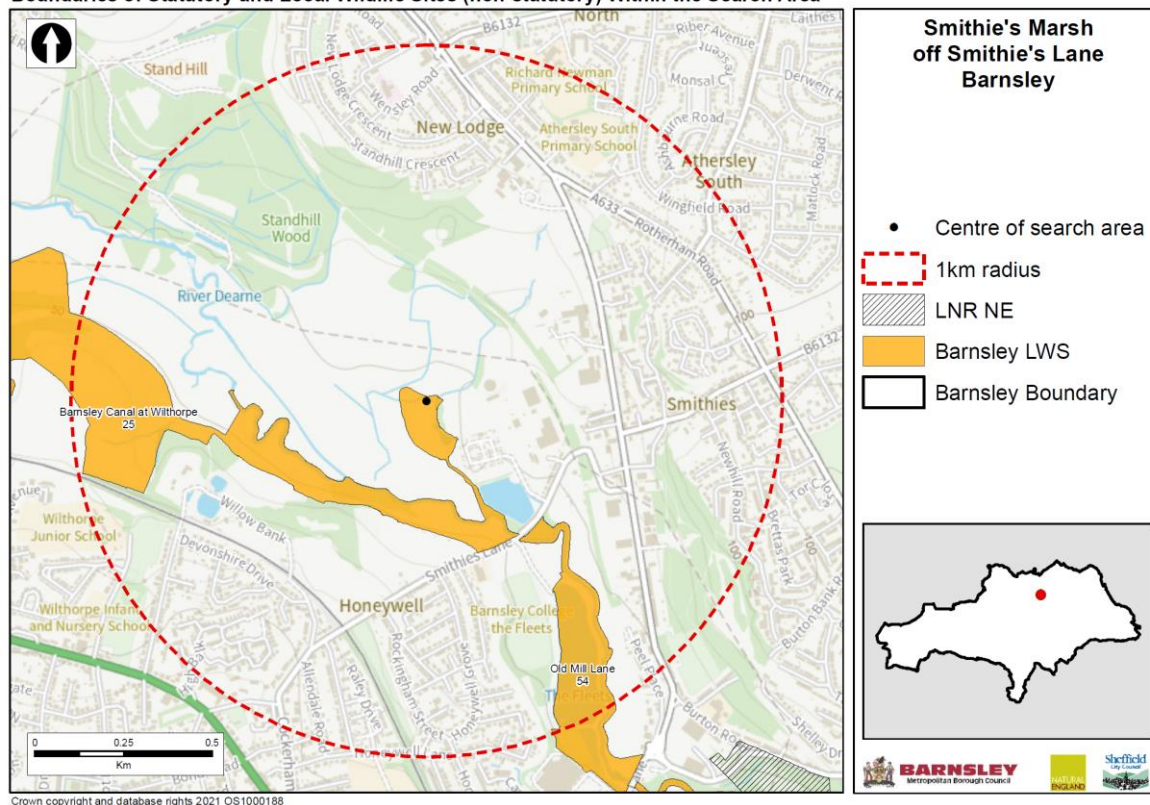
None are located within the search area

Locally designated and non-statutory sites

There are two LWS within a 1 km radius of the Site; a section of the Site is with Barnsley Canal at Wilthorpe, Old Mill Lane is located approximately 120 m from the southeastern boundary.

Table 1: Local Wildlife Sites within search area

Site name	Distance and direction from Site	Designation
Barnsley Canal at Wilthorpe	Within the Site boundary	LWS
Old Mill Lane	120 m southeast	LWS



Yorkshire Wildlife Trust (YWT) reserves

There are no YWT reserves within the search area.

Ancient Woodland Inventory

No areas are located within the search area.

Priority Habitat

Table 2: Priority habitat within search area

Habitat type	Comments
Deciduous woodland	Several parcels throughout search area. Most notably adjacent to the northern and eastern boundary and along the southern bank of the Dearne

Habitats on Site

Grassland: g1ag, g3a5, g3c5, g3c and g4

Most of the Site encompasses grassland habitats considered to be of ecological value for flora, invertebrates, birds, small mammals etc. this includes improved, unimproved and semi-improved neutral, acid and marshy grasslands in poor or moderate condition.

Semi-improved poor neutral grassland included in proposals is considered poor with few herb species. Given that the sward is species-poor and dominated by nationally and locally common

species; any loss is considered to be of negligible ecological importance and is not considered to be significant in context of the surrounding landscape.

The creation of ponds, a priority habitat, and shallow scrapes within this habitat will increase wetland habitat on Site and potential for expanding the range of flora species of interest on the Site in addition to providing further habitat for aquatic and semi-aquatic species.

Spoil from the creation of shallow ponds and scrapes and will be graded in a shallow layer in an area of poor un-improved neutral grassland on the northwestern boundary.

Wetland: f2f and f2d

Wetland habitats, including inundation communities, reed and sedge beds and marshy grassland are located in the centre of the Site, it should be noted where locally rare species are sited will be cordoned prior to and during works for protection.

These habitats will be extended and enhanced as part of proposals for the Site.

Deciduous woodland w1g and w1d, scattered trees and scrub h3h

Woodland habitats include semi-mature/immature trees scattered along the Dearne bankside, a small compartment of wet woodland along the southwestern boundary, and an area of broadleaf woodland along the central western boundary, offering high value habitats for local species such as bats, invertebrates and birds and are to be retained as part of proposals.

More mature broadleaved woodland runs along an old railway line east to west adjacent to the northern boundary of the Site.

Scattered scrub, predominantly common hawthorn and birch at the northern extent of the site will be unaffected by proposals.

Proposed plans will retain all trees on Site. All retained trees will be protected if required by the implementation of Root Protection Zones (RPZs) in accordance with British Standard 5837 (2012).

No impact is predicted for woodland within or adjacent to the Site.

Tall herb communities; g4 16

An area of tall herb consisting of common and widespread species including stinging nettle, cow parsley and Himalayan balsam is located along the northern bank of the Dearne. Approximately 0.22 ha of this habitat will form re-graded banks, allowing water onsite at peak flows, reconnecting the Dearne to its floodplain.

These sections will be stabilised by the use of coir matting and under-seeded prior to installation with a native marginal seed (Pond Edge Mixture EP1) providing improved habitat through species enrichment and bank stabilisation.

Open water r1 a, r1 and r2a

Open water on Site includes both deep and shallow pools along the line of an old goit and reedswamp and agricultural ditch and the Dearne.

See Appendix 2 for UKHabs map.

These areas are unaffected by proposals, therefore no impact is predicted.

The proposals will increase and enhance open water habitats on Site with creation of ponds, a priority habitat.

Species

Bats all species

An individual tree may have several potential roosting features for bats associated with it. However, it is not always possible to confirm usage of a feature by bats as often the animals may be present on one day and no evidence of occupation may be found on the next. Consequently, it is customary when undertaking such surveys to assign each feature to a defined category of roosting potential as follows: Negligible, Low, Moderate, High, Confirmed (Collins, 2016 and Andrews, 2018).

The survey area was also assessed for its suitability for foraging and commuting bats using defined categories based on features: Low, Moderate, High (Collins, 2016).

Bats all species

South Yorkshire Bat Group (EYBG) a total of 150 records of five bat species within a 1 km radius of the Site including common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Noctule *Nyctalus noctula*, Leisler's *Nyctalus leisleri*, Daubenton's *Myotis daubentonii* and unidentified *Myotis* spp. between 1988 and 2011.

88 historical records included 20 known/suspected roosts (46 records pertained to one site, Old Mill Lane 850 m from the Site), with incidental foraging and grounded bats with unidentified roosts.

The nearest bat (unidentified *Pipistrelle* spp.) roost record is 500 m from the Site to the south from 2011.

All records are available on request.

Trees on Site were assessed for their potential to support roosting bats as part of the survey by licensed ecologist Helen Norford (Natural England Bat Class 2 License: 2015-10170-CLS-CLS) .

11 no. trees along the bank side were assessed as having negligible potential, together with immature self-set trees within wet woodland additional in this category, two trees with negligible/low potential, four trees with low and three with moderate potential to support bats due to their age and limited features (ivy, fissures, lifted bark and holes).

All trees are to be retained as part of proposals; no artificial lighting will be present on Site during sensitive time periods for nocturnal species, therefore it is considered there will be negligible impact on bats, all species.

If approved, proposals will increase the extent of wetland habitats on Site and potential for aquatic invertebrates, therefore foraging opportunities for local bat species.

See Appendix 3 for bat roost survey map.

Kingfisher *Alcedo atthis*

Nesting Kingfisher have been recorded previously within 0.25 km to the east of the site, kingfisher either renovate or construct a new tunnel each year, currently the nearest nest is 0.6 km to the north-west of the Site.

No habitat (high banks) exists suitable for nesting kingfisher exists along the Dearne along the Site boundary, and none have previously been recorded.

It is proposed during works on the bankside of the Dearne a curtain rather than a screen will be used to prevent debris and silt travelling downstream of the site, this will allow fish passage along the Dearne. Food resources will not be restricted during this period along the linear territory of the pair, therefore no impact is predicted on this species prior, during or postworks.

Willow tit *Poecile montanus*

Records for willow tit are within and adjacent to the site on the opposite bank of the Dearne, the site is considered to form part of the breeding territory of one pair of willow tit.

No observations of willow tit were recorded during a site visit May 2022; however, this is late in the season for undertaking a survey for this species. Current evidence (Jeff Lunn, 2022) suggests since tree felling on adjacent land it is likely that willow tit has been pushed into more marginal surrounding habitats which include this Site.

As proposals would not require removal of scrub on site, but tall ruderal common herbs and sections of scoured earth along the north bank of the Dearne disturbance for this species is considered negligible.

If planning proposals are approved, it is anticipated the increase in wetland habitats should benefit this species with the corresponding increase in insect mass and therefore more food resource availability.

European badger *Meles meles*

The survey area was searched for signs of badger activity it followed standard methodology detailed in Surveying Badgers (Harris et al., 1989). This included survey for badger setts, along with survey of linear features and boundaries for signs of badger activity including dung pits, foraging marks, feeding signs and pathways.

No field evidence (paths, guard hair, latrines, setts) of badger was recorded on Site at the time of survey. Habitat on Site would provide foraging opportunities for this species, with potential for sets within a section of semi-mature broad-leaved woodland at the northern extent of the site, though the site is subject to disturbance from the general public and their dogs who can access the Site from a public footpath on the northern boundary and via a fishing pond on the southern boundary.

Though unlikely transient badgers may use the Site and the surrounding area for foraging, as such best practice measures should be implemented to safeguard individual animals.

See Precautionary Method Statement Appendix 1 within the PEA for this application.

Semi-aquatic mammals

A survey along the Dearne and 250 m to the east and west of the Site was undertaken in 19 May 2022 for field sign of otter *Lutra lutra* and water vole *Arvicola amphibius*. See Appendix 4 for survey area.

European otter *Lutra lutra*

Three records for this species were returned within the search area, including spraint (recorded, Pete Wall, YWT, 2014) on the southern bank of the River Dearne within the Site boundary.

A survey for the presence of otter was undertaken in May 2022, though a suitable hole within concrete under a bridge 100 m from the Site boundary and root systems of semi-mature trees along banksides exist no field signs (slides, holts, spraint) for otter were recorded during the walkover survey, therefore no impact on this species is predicted prior, during and post works.

However, this is a transient species with large territories of several kilometres, and though unlikely it is feasible that they may occasionally utilise the river on the boundary of this Site, therefore it is appropriate to work within a Precautionary Method Statement.

See Precautionary Method Statement Appendix 1 within the PEA for this application.

Water vole *Arvicola amphibius*

A survey for the presence of water vole was undertaken in May 2022, 100 m east and west of the Site and an area of dense reed/rush/sedge swamp area within the centre of the Site was also surveyed for this species, no field signs (latrines, runs, burrows, droppings) for this species were recorded during the walkover survey.

See Appendix 4 for survey area.

Anecdotal evidence (Pers. Comms, fishermen at the pond within 20 m of the Site) suggest recent presence of mink in the local area; data (RSPB mink dispatch figures) from wetland habitat reserves along the Dearne suggest a high burden of mink within the area, which correlates with the lack of water vole field signs recorded during surveys undertaken in 2021 by Yorkshire Wildlife Trust at previously known locations for this species in 2015.

The Site does provide suitable habitat for this species though in the presence of mink becomes sub-optimal, therefore no impact on this species is predicted prior, during and post works. With a strategic mink control policy along the Dearne it is considered that habitat for this species will be enhanced if proposals are approved.

See Precautionary Method Statement Appendix 1 within the PEA for this application.

Invasive species

Himalayan balsam *Impatiens glandulifera* target note: T3

Small patches of Himalayan balsam are located along the northern bank of the Dearne, and are present in one section where there will be proposed bank re-grading.

A series of balsam pulling days will be undertaken by Yorkshire Wildlife Trust June-July 2022 to remove the burden of this weed prior to works commencing subject to planning approval.

It should be noted spoil will not be moved around the Site but remain within the re-graded banks. However, without control of this species upstream, seed will disperse into the Site annually, as such removal of this weed forms part of the management plan by Yorkshire Wildlife Trust for the Site.

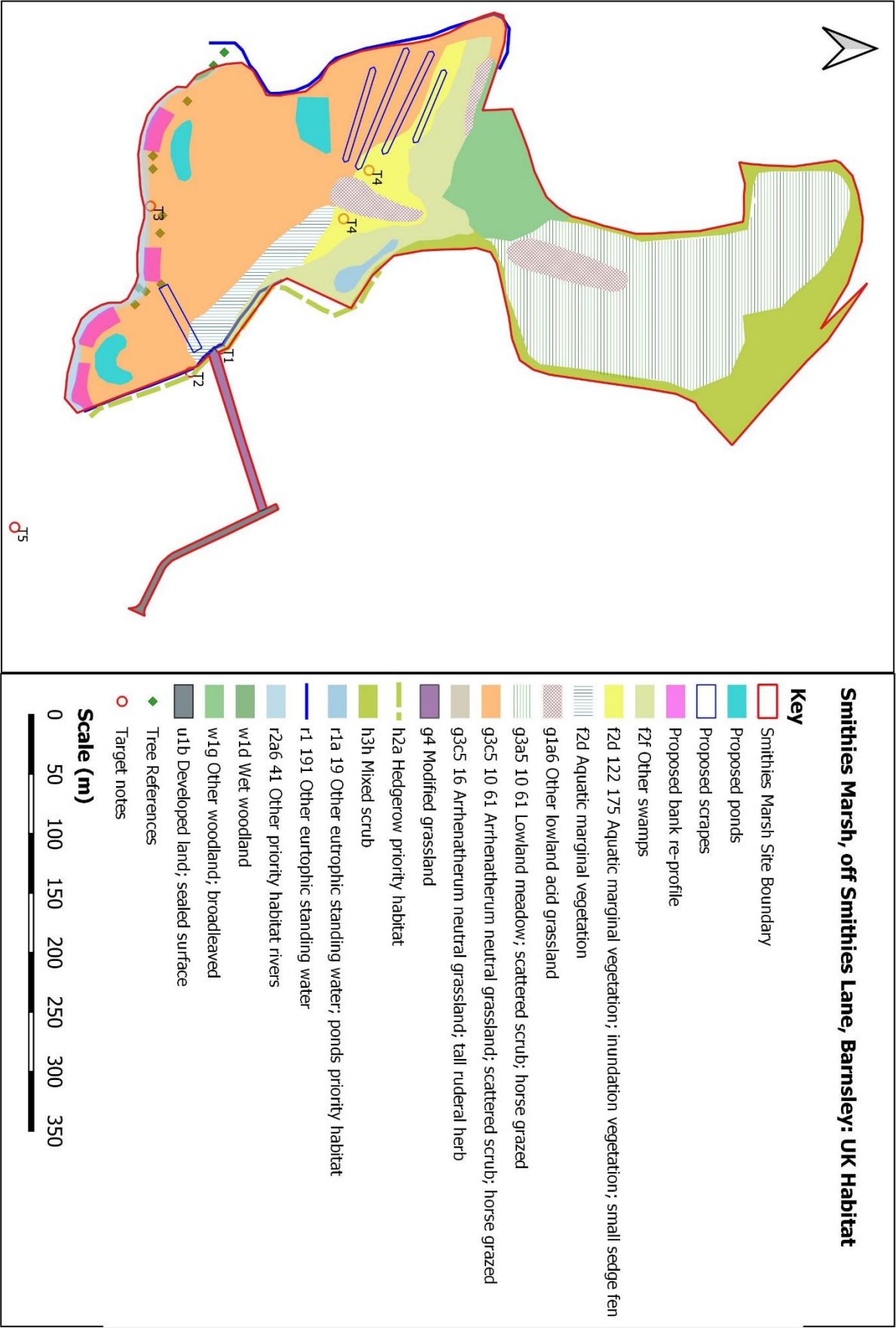
See Appendix 2 for location.

Japanese knotweed *Reynoutria japonica* target note: T1 and T2

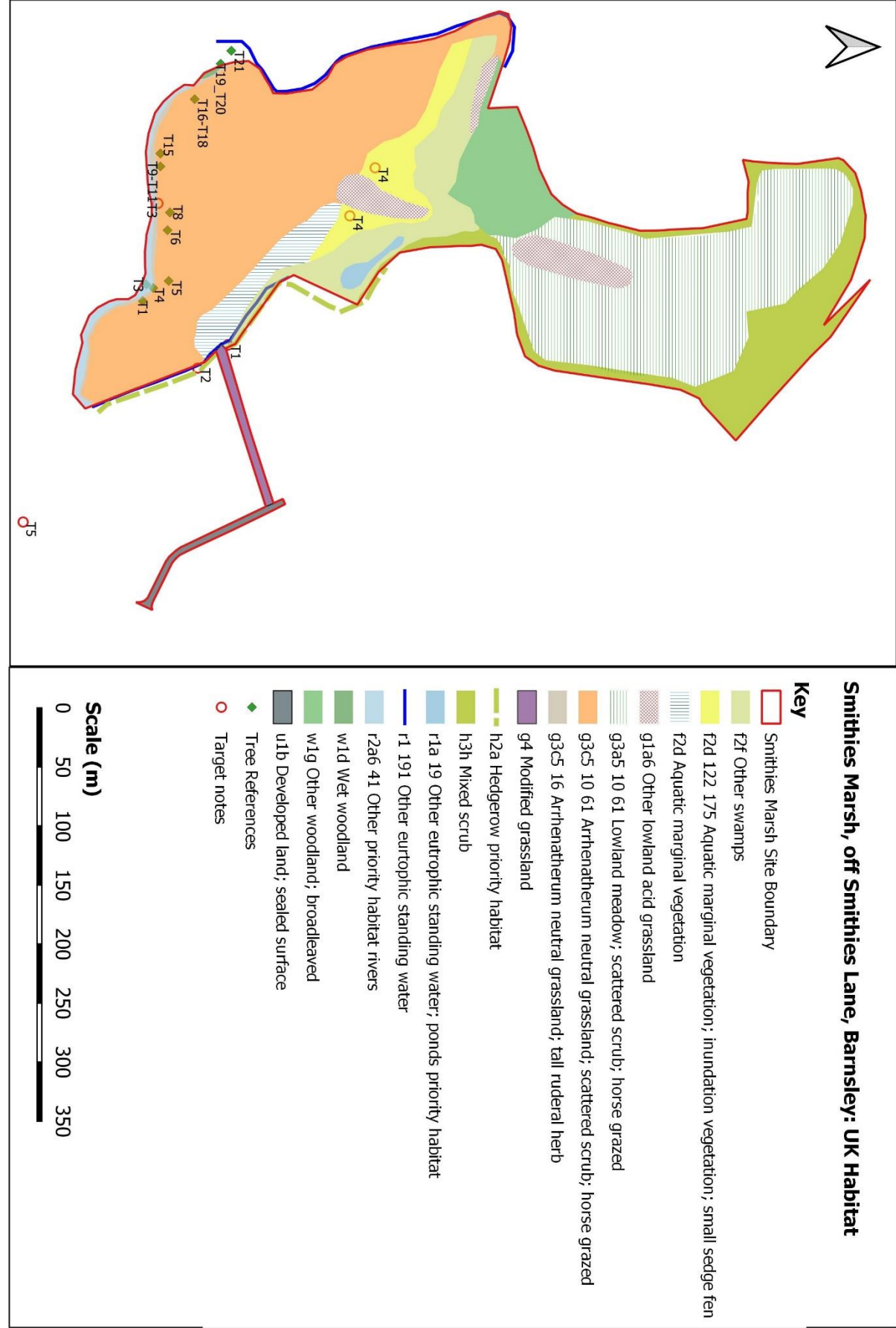
Two areas (Approx. 6 m² and 25m²) of Japanese knotweed occur close to the access point to the Site. These areas will be stem injected during June 2022 with further treatment if required August 2022. A 7 m cordon will be placed around the area to prevent plant and site personnel spreading any fragments on or off Site.

See Appendix 2 for location.

Appendix 1: Site proposals with UKHabs



Appendix 2: UKHabs map of Smithies Marsh



Target note	Description
1	Japanese knotweed
2	Japanese knotweed
3	Himalayan balsam along banks side in patches
4	Locally rare sedge/rush species <i>C. disticha</i> , <i>C. acutiformis</i> , <i>J. subnodulosus</i>

Appendix 3: Bat roost tree survey results with photographs

Map 2: location of surveyed trees at Smithies

Table *: Bat roost (trees) survey result Smithies Marsh

No.	ID	Common name	Scientific name	Comments	BTP	Details
1	T1	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	Negligible	No gap under lifted bark
1	T2	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	Low	Ivy
1	T3	Alder	<i>Alnus glutinosa</i>	Semi-mature	Low	Ivy
1	T4	Alder	<i>Alnus glutinosa</i>	Semi-mature	Low	Ivy
1	T5	Alder	<i>Alnus glutinosa</i>	Semi-mature	Negligible	
1	T6	Ash	<i>Fraxinus excelsior</i>	Semi-mature	Negligible	
1	T7	Sycamore	<i>Acer pseudoplatanus</i>	Immature	Negligible	
1	T8	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	Negligible	
3	T9-T11	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	Negligible	
2	T12-T13	Ash	<i>Fraxinus excelsior</i>	Immature	Negligible	
1	T14	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	Negligible	
1	T15	Willow	<i>Salix</i> spp.	Mature	Low	Lifted bark
3	T16-T18	Willow	<i>Salix</i> spp.	Mature	Moderate	Fissure/holes
2	T19-T20	Willow	<i>Salix</i> spp.	Mature	Negligible/Low	
15+	T21	Willow	<i>Salix</i> spp.	Immature	Negligible	



Figure 1: T1



Figure 2: T1



Figure 3: T2



Figure 4: T4



Figure 5: T5



Figure 6: T7

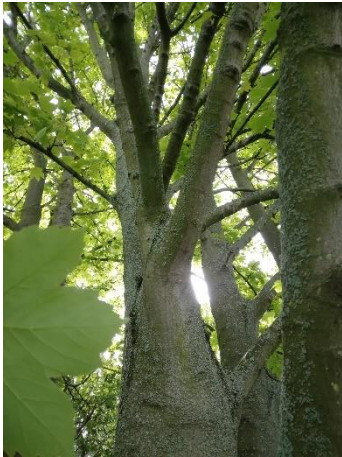


Figure 7: T8



Figure 8: T8

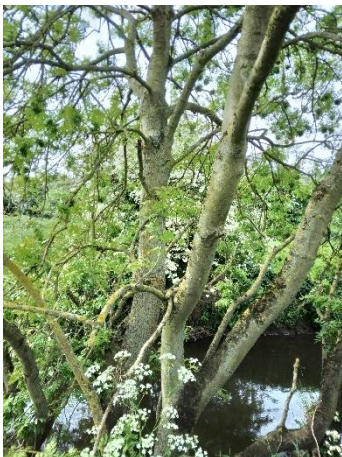


Figure 9: T12



Figure 10: T13



Figure 11: T13



Figure 12: T16



Figure 13: T16



Figure 14: T17



Figure 15: T17



Figure 16: T18



Figure 17: T18



Figure 18: T21



Figure 19: T21

Appendix 4: Otter and water vole survey area map and photographs

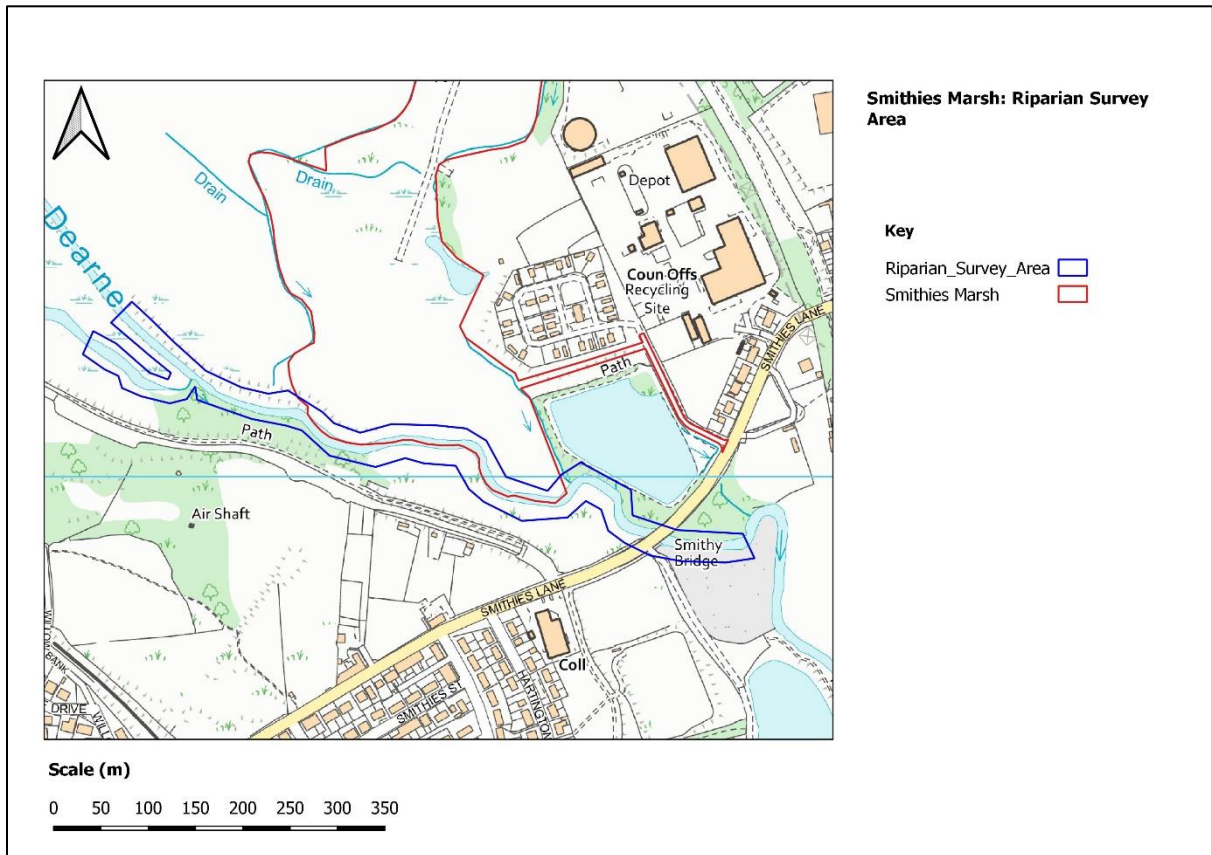


Figure 20: Southern river bank looking west



Figure 21: Southern river bank looking east



Figure 22: Southern river bank looking west



Figure 23: Southern river bank looking east (root area suitable for holt marked with red keyline)



Figure 24: Bridge Smithies Lane (area suitable for holt marked with red keyline)



Figure 25: Debris pile Dearn northern extent of Site