

Smithies Marsh
Off Smithies Lane, Barnsley

Construction Environmental Method Plan (CEMP): Biodiversity
September 2021

Helen Norford

Client:	Yorkshire Wildlife Trust	
Site Address:	Smithies Marsh off Smithies Lane, Barnsley	
Central grid ref.	SE 34444 08163	
Revision:	Final	
Prepared by:	Helen Norford BA (hons), MSc	27/09/2021

Whilst every effort has been taken to ensure the accuracy of this report and its contents in view of potential ecological constraints to works or the likely presence or absence of species it must only be viewed as a snapshot in time and therefore not be viewed as definitive. Due to external factors, such as seasonality, weather etc. having the potential to affect survey results no liability can be assumed for omissions or changes that may or may not occur after the date this report was produced.

Summary

This Construction Environmental Management Plan (CEMP): Biodiversity outlines commitments and measures to be implemented by Yorkshire Wildlife Trust and contractors at site to ensure that any potential adverse effects on ecology and local wildlife prior to and during the construction of the proposed works at the site will be minimised or eliminated.

The plan sets out the principles and responsibilities to be adhered to in establishing operational activities prior to and during works phases which will mitigate any risks to wildlife.

Below is a table which summarises the activities and measures in place.

Activity		Protection measure
Timings of works	Nocturnal fauna	Construction activities are restricted to one hour after dawn and one hour prior to dusk to avoid unnecessary disturbance to foraging and commuting bats and other nocturnal fauna. No artificial lighting will be used on site. Works to take place outside of breeding bird season and movement of amphibians to water bodies.
	Fish	Dissolved Oxygen (DO) and turbidity can both have a detrimental effect to the health of most UK fish species. Dredging works can have a negative impact on both these items. The timing of works and flow within a waterbody should also be considered when assessing the risks. Depending on the species, fish usually spawn in gravel and shingle, not in silt or mud and typically this occurs in later winter/early spring. Works are being completed in winter months outside high summer months/spawning season, with sufficient size, depth or flow of water to limit risk.
Site procedures	All	A suitably qualified Ecologist (SQE) will provide a toolbox talk prior to works commencing. The talk will include identification of species, wildlife legislation and procedures for working which will reduce/negate any adverse impacts on wildlife. All those undertaking training will be registered.
Site preparation	Fauna	Any new habitat suitable for protected and/or sensitive wildlife which has arisen during the intervening period between an initial walk over survey in August 2021 and the start of site preparation will be hand searched for vulnerable species prior to construction works. This includes turning and removing any objects within any new debris piles.
Biodiversity Protection Zones	BPZ1: Locally rare flora species	An exclusion zone will be fenced prior to machinery arriving on site and any works taking place to protect species from travelling machinery.
	BPZ2: INNS Japanese knotweed <i>Reynoutria japonica</i>	A 7 m exclusion zone will be required around stands to prevent any disturbance of Japanese knotweed prior to any works taking place and steps to control this species
During construction		
Site procedures		A SQE will be on-call for the duration of works to resolve any issues arising.
Biosecurity	Site personnel, visitors and plant	A biosecurity procedure will be in place prior to site set up and during works. See Appendix 6
Vegetation clearance	Birds	Any new habitat suitable areas with potential for nesting birds which has arisen during the intervening period between an initial walk over in August 2021 and start site preparation will require removal outside of the principal bird nesting season (1 March – 31 August) where feasible. If this is not possible a SQE will survey the area prior to removal. Any nesting birds identified will require a safe working distance to comply with wildlife legislation and left undisturbed until young have fledged.

	Other fauna	Methodical removal of any vegetation will ensure areas are clear of herpetofauna and small mammals.
Storage		All materials brought on to the Site will be stored off ground or in a suitable container to discourage fauna from using them for shelter.
Excavations	General	Trenches/excavations will be covered at the end of each working day or have an escape route built at one end to allow badgers or other wildlife from being trapped. Any temporarily exposed pipes or ducts should be capped at the end of each working day to prevent wildlife from accessing them.
In river works	Sediment pollution management downstream	Pollution can have detrimental effects on habitats and ecology. Silt screens will be used to prevent downstream sedimentation. Post reprofiling of River Dearne banks coir matting will be used to prevent slumping of banks reducing the risk of sediment being carried downstream with brushwood faggots installed on the bank heads to protect from erosion whilst vegetation is being established.
	White-clawed crayfish	Potential for this species is considered negligible the SQE will be on site during initial works to assess and check for this species. If they are encountered works will stop and statutory bodies consulted. If encountered licence may be required for works to before works can be resumed.
	Signal crayfish	Potential for this species is considered low the SQE will be on site during initial works to assess and check for this species. If they are encountered additional biosecurity actions will be required to prevent crayfish plague and animals being transferred to Site.
	Water vole	No records for this species have been obtained for this site within the last 8 years; no evidence was observed during a Preliminary Ecological Assessment of the site in 2021. Potential for this species is considered negligible the SQE will be on site during initial works to assess and check for this species. If they are encountered works will stop and statutory bodies consulted. A licence may be required for works to before works can be resumed.
	Otter	No evidence was observed of this species was recorded during a Preliminary Ecological Assessment of the site in 2021. Potential for this species is considered negligible the SQE will be on site during initial works to assess and check for this species. If they are encountered works will stop and statutory bodies consulted. A licence may be required for works to before works can be resumed.
Potential refugia	General	A finger-tip search should be undertaken by a SQE prior to works prior to works commencing to ensure areas are clear of herpetofauna and small mammals.
Lighting	Nocturnal fauna	No artificial lighting will be used on site.
Post construction		
Biodiversity enhancement	Installation of bat boxes	3 no. Schwegler 2F bats boxes to be installed within 3 months post works on mature trees along the northern bank of the River Dearne

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1 Introduction

- 1.1 The aim of the Construction Environmental Management Plan (CEMP) is to set out the responsibilities with regards to compliance with legislation and to implement any mitigation measures. This CEMP details management measures to minimise environmental impact on biodiversity from the construction phase of the works.
- 1.2 The CEMP forms a framework within which the measures will be implemented throughout the project. This framework provides project-specific management measures and is a dynamic document which should be reviewed if activities or conditions onsite change that may influence management measures.
- 1.3 This document has been developed to avoid, minimise, and mitigate against any construction effects on the environment and biodiversity. It should be considered a living document with reviews being undertaken at set intervals and new information added as appropriate.
- 1.4 For the purposes of this document, the working area is defined as any area where there will be a requirement for temporary or permanent works to facilitate the construction of the works. This includes areas required for access, temporary construction, and temporary storage areas.

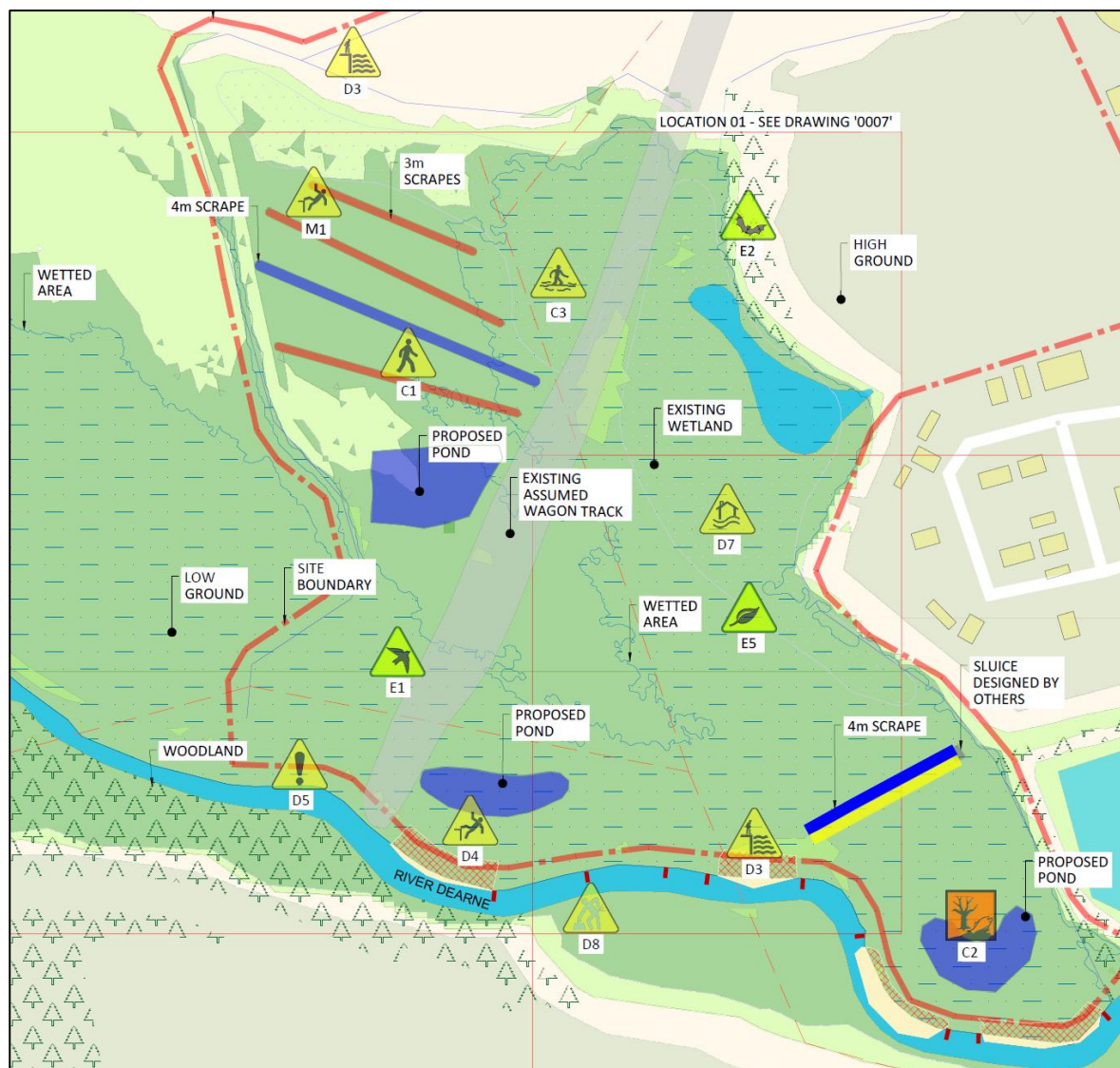
2 Project background

2.1 Site context

- 2.1.1 Smithies Marsh (Wilthorpe South) is under the ownership of Barnsley Metropolitan Borough Council and managed currently by Yorkshire Wildlife Trust through a management agreement. Funding has been secured to enhance the Site for wildlife by allowing natural processes e.g., seasonal flooding to be reinstated to restore an area of flood plain grazing a UK BAP priority habitat with additional wetland features to enhance the site for wading birds and other aquatic species. Enhancement of the northern bank of the River Dearne is also proposed to return functionality to sections of the river through creation of bars. Subject to planning approval being granted.
- 2.1.2 The proposed wetland creation scheme at Smithies Marsh hereafter referred to as 'the Site' is create 3 no. shallow (<0.75m deep) ponds, 5 no. shallow (<0.75m deep) scrapes, removal of short section of bank to the northwest and 3 no. sections of northern bank of the River Dearne to be regraded to create a point bars using green engineering (coir matting to protect banks and 40mm washed gravel to leading edges of bank from slippage and create bars. See Map 2 for location of features.



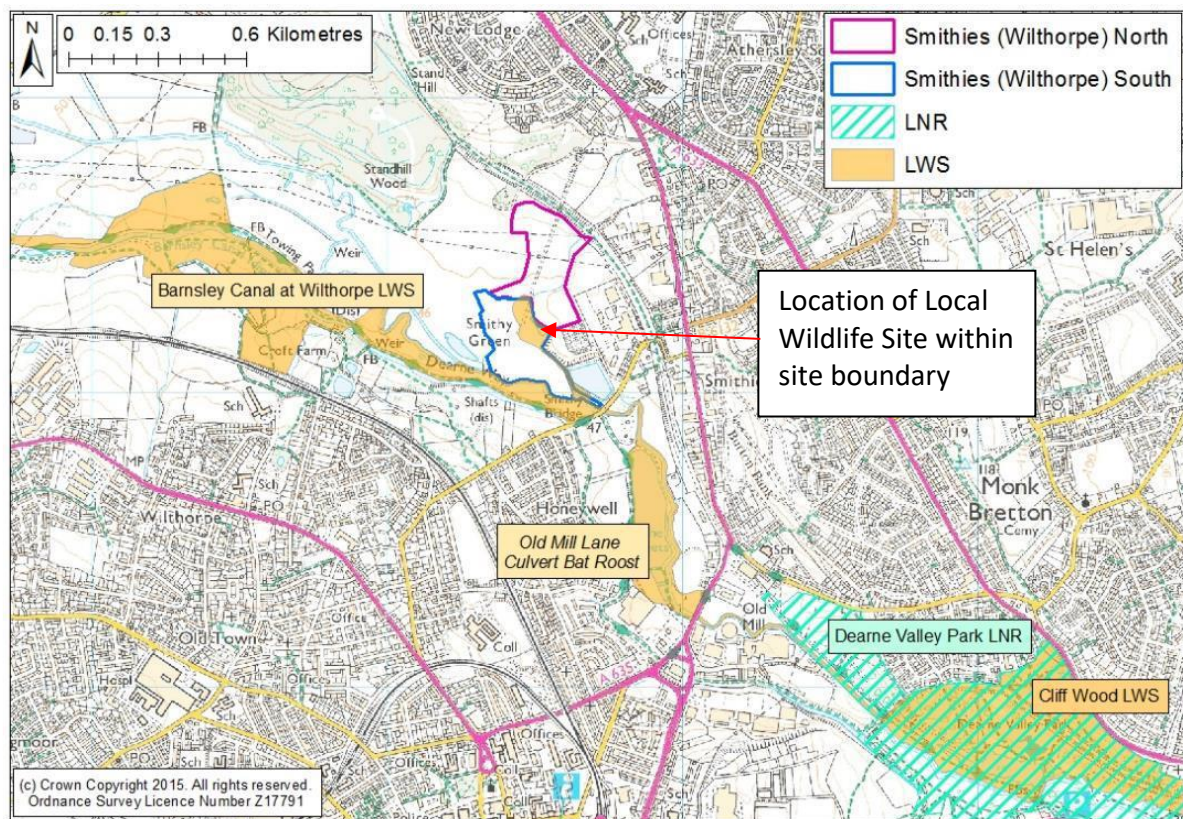
Map 1: Location of Smithies Marsh boundary shown as red key line.



Map 2: Proposed scheme at Smithies Marsh with wetland features and regrading and cut sections of the northern bank of the River Dearne shown as red cross hatches.

2.1 Site location

- 2.1.1 The Site is within Barnsley Metropolitan Borough Council administrative area.
- 2.1.2 The Site has some suitability to support protected and sensitive flora and fauna species, however the timings of works and precautionary method statements prepared means the risk of encountering these species on Site prior to or during construction is considered negligible.
- 2.1.3 No statutory nature conservation designations apply directly to the site.
- 2.1.4 A small area (1 ha) designated as a Local Wildlife Site as indicated on Map is located within the site boundary, this area is outside of proposed works and will be unaffected by travelling machinery onsite.



Map 3: Location of Local Wildlife Site within site boundary

2.1.5 Quality habitats onsite include:

- Sedge beds – these will be within an exclusion zone
- River Dearne banks side
- Swamp
- Standing water - ponds
- Marshy grassland / Acid grassland unimproved
- Inundations communities
- Dense scrub

2.1.6 Within the surrounding area quality habitat includes:

- River Dearne
- Swamp
- Marsh
- Ponds
- Dense scrub
- Broad leaved semi-natural woodland

These habitats have potential to be used by bat, badger, hedgehog, herpetofauna and bird species therefore, though unlikely, there is a residual risk transient individuals may occasionally utilise the Site. To mitigate any risk appropriate precautionary method statements for species have been included in Appendix 3 of this document.

2.2 Summary of proposed works

2.2.1 The proposed wetland creation scheme at Smithies Marsh (Wiltorpe South) hereafter referred to as 'the Site' is create 3 no. shallow (<0.75m deep) ponds, 5 no. shallow (<0.75m deep) scrapes and one cut section of northern bank and one section of regrading of the northern bank to create a point bar of the River Dearne. See Map 2 for location of features.

2.2.2 It is understood that the site is to be enhanced for biodiversity creating wetland features, scrapes and ponds within the boundary.

It is assumed the works will include:

- earth works and movement

2.3 Purpose of this CEMP: Biodiversity

2.3.1 This CEMP: Biodiversity has been prepared to minimise or eliminate any potential adverse effects of construction works on wildlife. Through the implementation of appropriate mitigation measures, detrimental impacts and breaches of current wildlife legislation will be avoided.

2.3.2 A biodiversity enhancement plan for the Site is included within Appendix 5 of this CEMP: Biodiversity showing type of enhancement and location.

This includes:

- 3no. bat boxes to be installed on mature trees along the bank of the River Dearne
- Seeding of regraded banks prior to installation of coir matting with Emmerson EM8F Wild flowers for wetlands seed

3 Ecological issues

3.1 Legislative requirements

3.1.1 Species legislation

A summary of species legislation can be found in Table 1 below, see Appendix 2 for further details.

Table 1: Species legislation summary

Species	Legislation	UK BAP	Local BAP	Implications
Amphibians	Great crested newts are a European protected species receiving protection under The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). Common amphibians are protected under the Wildlife and Countryside Act 1981 (as amended). Common	Yes Species dependent	Yes Species dependent	It is illegal to kill, injure, capture, handle or disturb them, and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed. Great crested newt is a Species of Principal Importance under Section 41 of the NERC Act 2006.

	toad is also listed as a priority species under Section 41 of the NERC Act 2006.			Common amphibians are protected against sale, barter, or exchange of captive animals.
Bats	Conservation of Habitats and Species Regulations 2010 (formerly The Conservation (Natural Habitats, Etc.) Regulations 1994 (as amended), which implements the requirements of the EC Habitats Directive, plus under UK legislation through Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981.	Yes	Yes	Legal protection makes it an offence to intentionally or recklessly kill, injure or take bats from the wild. To damage, destroy or obstruct access to any structure or place which bats use for shelter or protection. To disturb bats while they are using such a place (Natural England 2008)
Badger	Protection of Badgers Act 1992	Yes	Yes	It is an offence under the act to kill, injure or take a badger. It is also an offence to destroy, damage or obstruct a currently active badger sett, or to disturb animals within the sett.
Nesting birds	Section 1 and Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)	Species dependent	Species dependent	Disturbance to nesting birds is illegal
Reptiles	Schedule 5 of the Wildlife & Countryside Act 1981 (as amended)	Yes	Yes	It an offence to intentionally or recklessly kill, injure or take reptiles from the wild. To damage, destroy or obstruct access to any structure or place which reptiles use for shelter or protection. To disturb reptiles while they are using such a place.
White clawed crayfish	Protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), fully protected under Annex II and V of the European Habitats Directive (1992), requiring the designation of Special Areas of Conservation (SAC) for their protection. European Bern Convention lists white-clawed crayfish in Appendix III as a protected species.	Yes	Yes	It an offence to take them from the wild or sell them.
Otter	Fully protected as a European protected species (EPS) and is also protected under sections 9 and 11 of the Wildlife and Countryside Act 1981.	Yes	Yes	Legal protection makes it an offence to intentionally or recklessly kill, injure or take otter from the wild. To damage, destroy or obstruct access to any structure or place which otter use for shelter or protection. To disturb otter while they are using such a place
Water vole	Protected under sections 9 and 11 of the Wildlife and Countryside Act 1981.	Yes	Yes	Legal protection makes it an offence to intentionally or recklessly kill, injure or take water vole from the wild. To damage, destroy or obstruct access to any structure or place which bats use for shelter or protection. To disturb water vole while they are using such a place
Hedgehog	Schedule 5 of the Wildlife & Countryside Act 1981 (as amended), though not as a species under (Section 5)	Yes	Yes	Legal protection from being killed using prohibited methods such as a crossbows, traps, and snares.

3.1.2 Planning regulations

Table 2 below summarises the relevant national, regional and local policies concerning nature conservation in relation to this proposal

Table 2: Planning regulations

Legislation	Legislation information
National Planning Policy Framework (NPPF) 2019	Chapter 15: Conserving and enhancing the natural environment including Biodiversity Net Gain. Paragraph 005: Green infrastructure For communities, these benefits can include enhanced wellbeing, outdoor recreation and access, enhanced biodiversity and landscapes, food and energy production, urban cooling, and the management of flood risk. These benefits are also known as ecosystem services.
National Planning Practice Guidance Natural Environment	Paragraph 10-35. Responsibilities regarding protected and priority species and habitats; 'proportionate' information and assessment required on biodiversity impacts at all stages of development; local ecology networks and nature recovery networks; application of mitigation hierarchy, net gain metrics, and promotion of woodlands
Barnsley Local Plan 2019	Policy BIO1 Biodiversity and Geodiversity Policy ENV4 Conserving and enhancing biodiversity and geodiversity Protecting and improving habitats, species, sites of ecological value and sites of geological value with particular regard to designated wildlife. Conserving and enhancing the form, local character and distinctiveness of the boroughs natural assets such as the river Dearne corridor as a natural floodplain and important strategic wildlife corridor. Policy GI1 Green Infrastructure Protect, maintain, enhance and create an integrated network of connected and multi-functional Dearne Valley Green Heart Corridor: The strategic corridors identified are important valued features which define the borough. They form part of a wider network of Green Infrastructure that allows people and wildlife to move through the countryside and built-up areas. Whilst the corridors are the focus for creating and improving green infrastructure, it will also be provided and improved through new development and elsewhere as appropriate. Elements of existing Green Infrastructure are shown on the policies map, for example green space and functional floodplain. Policy GS1 Green Space Improve existing green space to meet the standards in our Green Space Strategy. Green Spaces are green open areas which are valuable for amenity, recreation, wildlife or biodiversity and include types such as village greens, local open spaces, country parks, formal gardens, cemeteries, allotments, woodlands, recreation grounds, sports pitches and parks. Policy LC1 Landscape Character Development will be expected to retain and enhance the character and distinctiveness of the individual Landscape Character area
UK Biodiversity Action Plan	The UK Biodiversity Action Plan (BAP) is the mechanism for dealing with biodiversity conservation in response to the Rio Convention 1992. Governments signing up to this convention are committed to create and enforce national strategies and action plans to conserve, protect and enhance biodiversity. Within the UK BAP, Species Statements and Broad Habitats Statements have been written to outline issues affecting species and semi-natural habitats and broad policies to address them. In addition to these, Priority Species and Habitats have been identified and targets determined in order to maintain and enhance their distribution and contribution to UK biodiversity. These species and habitats are those considered to be at most threat and reported as UK Species Action Plans (SAPs) and UK Habitat Action Plans (HAPs).

	Species and habitats of importance in relation to this scheme include, ponds, rivers, floodplain grazing marsh, bats, badger, hedgehog, otter, water vole, white-clawed crayfish, great crested newt, lapwing
Barnsley Biodiversity Action Plan	Species and habitats of local importance. In relation to this scheme include, ponds, rivers, floodplain grazing marsh, bats, badger, hedgehog, otter, water vole, white-clawed crayfish, common toad, great crested newt, lapwing
Protected species	A number of species are protected under European and or UK Legislation. The key Legislations are Bern Convention, The Wildlife & Countryside Act 1981 (as amended), Countryside and Rights of Way Act 2000 (CROW), Protection of Badgers Act 1992. Protected species in relation to this scheme includes, bats, badger, hedgehog, otter, water vole, white-clawed crayfish, great crested newt

4 Roles and responsibilities

4.1 The anticipated roles and responsibilities of the key parties involved in the construction works are set out in the table below. However, it should be noted that all members of staff are responsible for ensuring the requirements of the CEMP: Biodiversity are set out in Table 3 below.

Table 3: roles and responsibilities

Roles			
Title	Name	Address	Contact details
Client	Yorkshire Wildlife Trust	Potteric Carr Nature Reserve, Mallard Way, Doncaster DN4 8DB	T: 01302 365995
Contractor	David Bichan	Bank End Farm, Bank End Road, Finningley, Doncaster DN93NT	T: 01302 770869 M: 07831330026
Ecologist	Helen Norford Yorkshire Wildlife Trust	Potteric Carr Nature Reserve, Mallard Way, Doncaster DN4 8DB	T: 01302 365995 M: 07885 799712 E: helen.norford@ywt.org.uk
Responsibilities			
Client	Overall responsibility		
Contractor	- Ensure all people on-site are provided with relevant information concerning environmental protection prior to commencing any work on-site. - Ensure all written procedures within this CEMP are adhered too during the lifetime of the project. - Liaise with the ecologist on any ecological matters arising. - Ensure that procedures within this CEMP are adhered during the lifetime of the project.		
Suitably qualified Ecologist (SQE)	- Undertake the initial toolbox talk prior to work commencing all personnel involved with this project. - Undertake a toolbox talk to any additional personnel starting work once the project has commenced. - Undertake a refresher talk during construction if required/requested by any member of the project team. - Perform a detailed walkover and where necessary a fingertip search for any evidence of protected species prior to ground clearance works commencing. - If the initial ground clearance work is to be undertaken during the nesting bird season (1 March – 31 August) a nesting bird search of habitat with be undertaken just prior to any of these works commencing. - Be available at all time to the client, Site Manager and /or Site Foreman for advice on any unforeseen emergencies. - Ensure that all the procedures are adhered to during the lifetime of the project.		

5 Site procedures

5.1 Document control

5.1.1 All documentation should be kept within a Site Procedures File, kept in a safe place which is easily accessible for reference by all personnel involved in the project, it should consist of the following documents:

1. Construction Environmental Management Plan (CEMP): Biodiversity
2. Contact information for key personnel and the statutory nature conservancy agency, Natural England
3. Wildlife identification sheets for badger, common bat species and herpetofauna with accompanying wildlife legislation
4. Toolbox talk and training register

5.2 Raising awareness of biodiversity

5.2.1 Toolbox talk

The raising of environmental and health and safety awareness and protected species which may be encountered on the Site is viewed as a crucial element in the appreciation and implementation of the CEMP: Biodiversity. This document will be distributed to members of the project team, including suppliers and subcontractors as necessary to ensure that environmental and requirements are adequately communicated.

5.2.2 The objectives of the toolbox talk are that the project team are provided with:

- The management structure and reporting responsibility.
- Reporting procedures if protected species are encountered prior to or during construction.
- Relevant information sheets including identification of protected/sensitive wildlife species.
- Precautionary method statements to minimise any impacts on species, in the unlikely event of encountering them on the Site see Appendix 3.

5.2.3 An induction and training register will be completed for all the project team and relevant site visitors on completion of the toolbox training, this will be kept within the Site Procedures File.

5.2.4 If during the lifetime of the project alterations to the approved CEMP: Biodiversity are required a site meeting will take place with the Client/Developer, Site Manager, Site Foreman and Ecologist to discuss and agree any changes required. If the alterations proposed cannot be carried out within the parameters of the approved CEMP: Biodiversity the Local Planning Authority will be contacted to discuss the proposed amendments to get written approval before changes are made.

6 Control of works

6.1 This CEMP: Biodiversity has been prepared based on a site walkover in August 2021 found no observed field signs for EPS and UK protected/sensitive species. The aim of the Site walkover is to ensure no protected/sensitive species, though any encounter is deemed unlikely, are present within the works site prior to the initial ground clearance works being undertaken.

6.2 Legislation

As of August 2021, it is considered the presence or usage of the site by protected species is negligible/low, therefore no licences to undertake works are required from Natural England.

6.3 Construction activities

The following construction activities will be required as part of the works with timings of works to be undertaken set out in Table 3. Specific method statement for protected/sensitive wildlife species are set out in Appendix 4 .

6.4 Pre-construction procedures

- 6.4.1 The morning of and prior to the initial ground works being undertaken the suitably qualified ecologist walkover the Site, and where necessary conduct a fingertip search within the works area for any signs of protected species such as badgers, bats, great crested newts, nesting birds, herpetofauna and any other wildlife
- 6.4.2 If the ground works are phased the above procedure will be undertaken prior to commencement.
- 6.4.3 A secure area for plant has been approved by BMBC at a recycling centre close to Site.
- 6.4.4 Biodiversity protection zones (BPZ) to protect sensitive flora and prevent INNS species being disturbed during works and prior to any control of INNS species taking place.

6.5 Construction phase

Excavation works

- 6.5.1 Excavation works to be undertaken by mechanical digger and/or by hand will be undertaken in a slow and methodical manner.
- 6.5.2 Any trenching and excavation works that may be required will not commence until the ground clearance work has being completed as a whole, or in a particular section if the works area if it is to be phased.
- 6.5.3 Excavations and or trenches should not be left open overnight. However, where this is unavoidable an escape route must be provided within the excavation/trench in the unlikely event any wildlife species become trapped. The escape route will take the form of a 45° earth slope left in place at one end of the excavation/trench. The following morning the open excavation/trench will be inspected by the Site Manager or Site Foreman prior to any works re-commencing.

Storage of materials

- 6.5.4 All materials which must be stored on Site will be raised off the ground (i.e. on pallets) where practicable. Any soils or loose materials stored on Site should ideally be stored away from Site boundaries and soils should be sealed to reduce the risk of being used by wildlife. Stock-piled materials such as soil, sand or hardcore, must be stored in a manner that prevents them being blown or washed away. The material storage area is indicated on Map 6.
 - 6.5.5 Good general housekeeping of the Site will be employed to ensure there is no build-up of debris or other rubbish which may create suitable habitats for protected species.
 - 6.5.6 There will be no ingress or tracking by machinery and construction workers into adjacent habitats during any of the site works.
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- 6.5.7 Hazardous chemicals must be stored away from non-hazardous chemicals, in good condition containers and secondary containers (drip trays or 'bund' with impermeable base), that are clearly marked with relevant hazard and COSHH information. All containers should be subject to regular inspection and maintenance.
- 6.5.8 All stored chemicals should be kept a minimum of 10m from watercourses, open drains, gullies, unsurfaced areas or porous surfaces.
- 6.5.9 Ensure a suitable spill kit is kept fully stocked on site. All workers must be aware of where it is stored and the procedure to follow in the event of a spill, ensuring the kits are used safely and effectively.
- 6.5.10 Any contaminated water or chemicals should be prevented from entering excavations, through the use of cut-off ditches or covering of the excavation.
- 6.5.11 Any disinfectant stations are to be located downhill from water bodies this will ensure all runoff from vehicle washing will flow away from the River Dearne.

Biosecurity

- 6.5.12 Good biosecurity measures will be employed on Site to prevent introduction of biologically injurious material to the Site. See Appendix 6 for biosecurity information provided to contractors on Site.
- 6.5.13 This will include the limitation of machinery to that which is essential to the works, this is anticipated to be one 14-ton, Atlas 360 and 6-ton dumper truck with time on Site minimised. The estimated completion of works is 15 working days.
- 6.5.14 To minimise the potential for contamination, this machinery will be dedicated to the Site where possible.
- 6.5.15 Machinery and footwear arriving on Site will be thoroughly cleaned and checked for organic material prior to entry to Site. This includes all features such as wheel treads and mud guards.
- 6.5.16 Machinery will be properly serviced, and emergency spill kits will be available to include oil booms and absorbent mats etc.
- 6.5.17 All personnel on Site will follow strict biosecurity, ensuring all boots and PPE are thoroughly cleaned. Wheel and boot wash facilities will be provided for use prior to admittance on Site.

Site operating hours

- 6.5.18 Working hours shall extend from one hour after sunrise to one hour prior to sunset to prevent disturbance at dawn or dusk to prevent disturbance for surrounding wildlife and residents.

Lighting strategy

- 6.5.19 To ensure foraging/commuting bats, badger, and nesting birds if present are not adversely affected no artificial lighting will be used on site.

6.5 Post construction

- 6.5.1 The Site Procedures File associated with the project are to be retained for a minimum of two years after the completion of the works project.

6.6 Biodiversity protection zones (BPZ)

6.6.1 BPZ1 will protect sensitive flora from travelling machinery

6.6.2 BPZ2 will prevent machinery from disturbing INNS species

6.7 Timeframe and responsibility for implementation

Table 4: Timeframes and responsibilities for construction activities

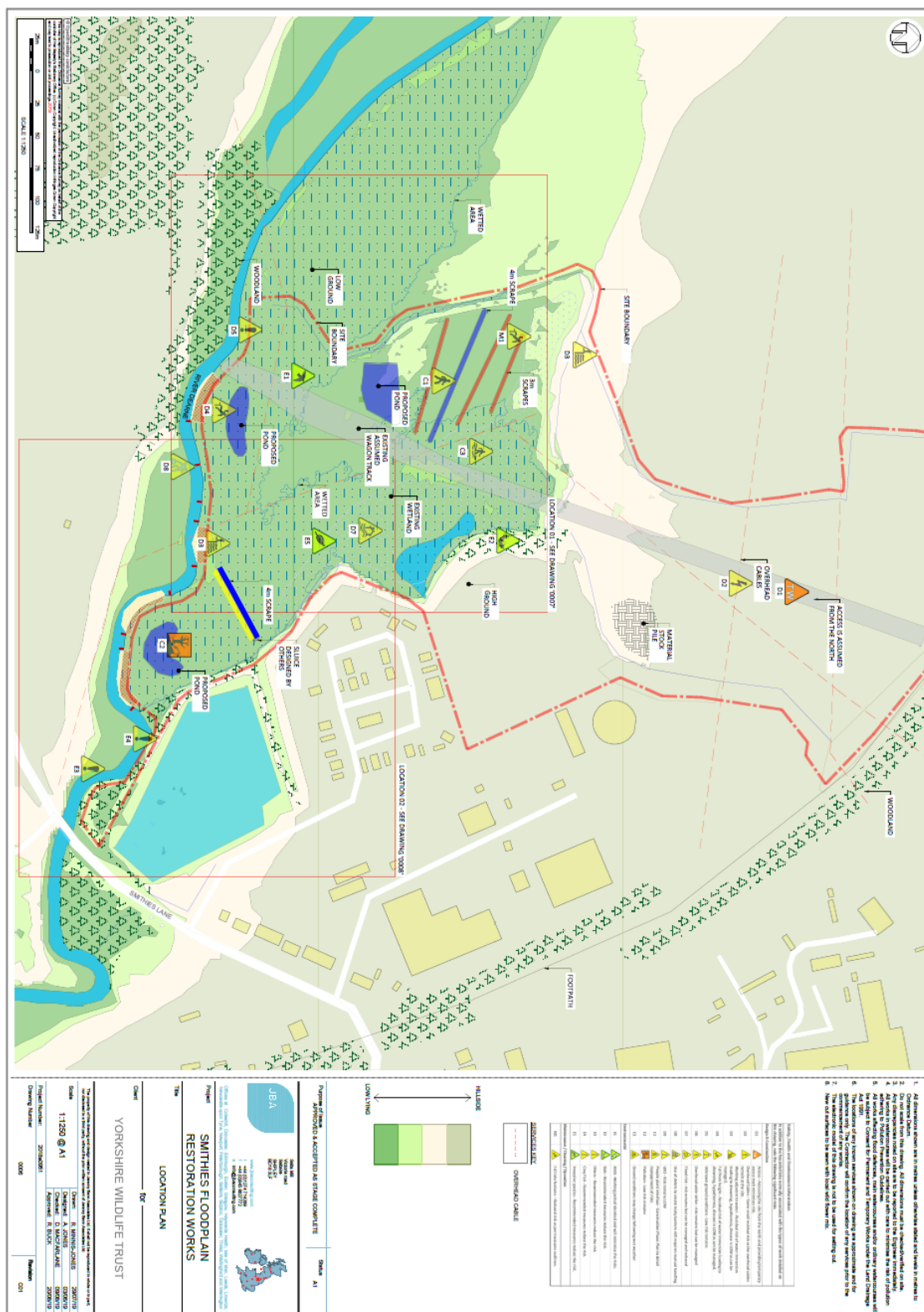
Task	Timeframe	Responsible persons
Walk over of the Site by SQE	Prior to works commencing	SQE, contractors
Ground works	Between September – February to avoid disturbance to nesting birds.	Client, contractors
Channel works	Between September – February to avoid disturbance of spawning fish	Client, contractors
Completion	Works to take place 15 working days of starting	Client, contractors
Biodiversity enhancement	Bat boxes installed within 15 working days of completion	SQE, contractors

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Appendix 1: Site plan

Please note that reference to the boundary of the Site should be taken from Map 1.



Appendix 2: Species legislation

Amphibians

All native amphibians (common frog, pool frog, common toad, natterjack toad, smooth newt, palmate newt and great crested newt) receive some legal protection in Great Britain under Section 9 of the Wildlife and Countryside Act 1981 (as amended). Under the Act it is an offence to:

- Intentional or recklessly kill and injure (note the provision in section 9(1) of Wildlife & Countryside Act 1981 prohibiting 'taking' does not apply to reptiles)
- Sell, offer or expose for sale, or have in possession or transport for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or intending to buy or sell, any of those things.

Great crested newts

Great crested newts and their habitat are afforded additional protection under Section 2 of the Conservation and Habitats and Species Regulations 2010 which designate them 'European Protected Species (EPS)'. The Regulations prohibit:

- Deliberately kill, injure, or capture a great crested newt.
- Deliberately disturb a great crested newt in such a way as to significantly affect the ability of that species to survive, breed, rear or nurture their young.
- Recklessly disturb or obstruct access to the resting place of a great crested newt.
- Damage or destroy breeding sites and resting places of great crested newts.
- Deliberately take or destroy eggs of the great crested newt.
- Possess, transport, sell, barter, or exchange any part of a great crested newt whether dead or alive.

This applies to great crested newt at all life stages.

The great crested newt is listed as a priority species on the UK Biodiversity Action Plan (BAP) and in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Badger

Badgers are protected and so are the setts (burrows) they live in. Under the Protection of Badgers Act 1992, in England and Wales it is an offence to:

- Wilfully kill, injure, or take a badger (or attempt to do so).
- Cruelly ill-treat a badger.
- Dig for a badger.
- Intentionally or recklessly damage or destroy a badger sett or obstruct access to it.
- Cause a dog to enter a badger sett.
- Disturb a badger when it is occupying a sett.

Bat all species

All species of UK bats are statutorily protected under the Conservation of Habitats and Species Regulations 2010 (formerly The Conservation (Natural Habitats, Etc.) Regulations 1994 (as amended)), which implements the requirements of the EC Habitats Directive, plus under UK legislation through Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981. This combined legislation makes it an offence to:

- Deliberately kill, injure, or capture bats.
- Deliberately disturb bats in such a way as to significantly effect:
 - a) the ability of that species to survive, breed, rear or nurture their young
 - b) the local distribution on the species.
- Intentionally or recklessly disturb or obstruct access to the resting place of bats.
- Damage or destroy breeding sites and resting places of bats even if bats are not occupying the roost at the time.
- Possess, transport, sell, barter, or exchange any part of, or derived from a bat whether dead or alive.

The Natural Environment and Rural Communities Act 2006 (NERC) lists the Bat as a species of principal importance under Section 41 and Section 40 requiring every public body in the exercising of its functions (in relation to Section 41 species) to 'have regard, so far as is consistent with the proper exercise of those functions, to the propose of conserving biodiversity', therefore making bat species a material consideration in the planning process and requiring a detailed survey before planning permission can be granted.

Nesting birds

All wild birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), it is an offence to:

- Deliberately kill, injure, or take any wild bird.
- Take, damage, or destroy the nest of any wild bird whilst in use or being built.
- Take or destroy an egg or eggs of any such wild bird.

The breeding bird season runs from 1 March to 31 August.

Under Section 1 of the Wildlife and Countryside Act 1981 (as amended), it is an offence to remove, damage or destroy the nest of any wild bird whilst that nest is in use or being built. Planning consent for works does not provide a defence against prosecution under this Act.

Eurasian otter

The Eurasian otter is fully protected as a European protected species (EPS) and is also protected under sections 9 and 11 of the Wildlife and Countryside Act 1981.

It is an offence to:

- Capture, kill, disturb or injure otters (on purpose or by not taking enough care)
 - Damage or destroy a breeding or resting place (deliberately or by not taking enough care)
 - Obstruct access to their resting or sheltering places (deliberately or by not taking enough care)
 - Possess, sell, control or transport live or dead otters, or parts of otters
-

Reptiles

Common lizard, slow worm, grass snake and adder are all protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) against

- Killing, intentional injury and selling

Sand lizard and smooth snake

These species are fully protected by the Conservation of Habitat and Species Regulations 2010 Regulation 9 and the Wildlife and Countryside Act 1981 Section 9 both pieces of legislation make it an offence to:

- Kill, injure or capture
- Damage or destroy a breeding or resting place.
- Intentionally obstruct access to a resting place used for shelter.
- Keep, transport, or sell.

All native species of reptiles are included in the NERC Act 2006.

Water vole

The water vole is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and is a priority conservation species.

It is an offence to:

- Intentionally capture, kill or injure water voles
- Damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care)
- Disturb them in a place of shelter or protection (on purpose or by not taking enough care)
- Possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity)

White-clawed crayfish

The white-clawed crayfish is protected under both European and UK law. Under UK legislation the white-clawed crayfish is protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), making it an offence to take them from the wild or sell them. They are also fully protected under Annex II and V of the European Habitats Directive (1992), requiring the designation of Special Areas of Conservation (SAC) for their protection. European Bern Convention lists white-clawed crayfish in Appendix III as a protected species.

It is an offence to:

- Intentionally capture, kill or injure white-clawed crayfish
- Damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care)
- Disturb them in a place of shelter or protection (on purpose or by not taking enough care)
- Possess, sell, control or transport live or dead white-clawed crayfish or parts of them

Appendix 3: Precautionary methods of working

A range of factors are taken into consideration when assessing whether works can proceed in the absence of a licence including the nature of the proposals; the suitability of habitats within the Site to support protected species; evidence of such species; and proximity of existing known populations. In cases where a licence is not required, Natural England (Natural England, 2013) urge that reasonable precautions be taken to avoid affecting European Protected Species during works and that an audit trail is kept on the decision-making process. Following Natural England advice, this document sets out the reasonable precautions that will be undertaken in relation to avoiding affecting European Protected Species during the works and to reduce the risk of causing offences to these species under the Wildlife and Countryside Act 1981 (as amended). The plan provides an audit trail for the justification for why an offence is considered reasonably unlikely.

1 Precautionary method of working for removal of vegetation

The methods and working practices detailed in this Method Statement will apply to the proposed Site.

The timings in this Method Statement are outside of the bird nesting season however, due care and attention must be paid to the requirements detailed below.

Vegetation removal and movement

Prior to any works in suitable habitat a suitably qualified Ecologist (SQE) will investigate by hand dense and tall vegetation to for reptiles/amphibians and small mammals. Once the SQE is assured the area is clear, tall vegetation where required will then be methodically cut to a short sward height under their direction.

Arisings will be removed from the Site immediately and disposed of responsibly.

The vegetation short sward height should remain for a minimum of two days before works commence, allowing reptiles/amphibians and small mammals time to move away and make the area hostile.

Deconstruction of any artificial refugia

Any recent artificial refugia (i.e. rubble piles, grass piles etc.) on Site which needs to be deconstructed, must be done so in a careful manner, ideally by hand, overseen by the SQE to ensure no amphibians, reptiles or small mammals are using it. Materials from the artificial refugia should be either stored off ground, in a container or removed off site and disposed of responsibly.

2 Precautionary method of working for channel works

The methods and working practices detailed in this Method Statement will apply to the proposed Site.

Prior to any channel works taking place

- Prior to any works, a suitably qualified Ecologist (SQE) will investigate bankside vegetation for field signs of protected species. Once the SQE is assured the area is clear, earth/vegetation will then be methodically removed under their direction.
- All machines will be subject to biosecurity prior to entering the Site.
- Slit traps/curtains will be installed to isolate work areas and prevent pollution downstream.
- Overburden will be taken to a designated area in Flood Zone 3 as indicated on Map 6.

3 General good practice for pollution prevention

Government guidance: <https://www.gov.uk/guidance/pollution-prevention-for-businesses>

General key pollution prevention measures have been outlined for the site below:

- Hazardous chemicals must be stored away from non-hazardous chemicals, in good condition containers and secondary containers (drip trays or 'bund' with impermeable base), that are clearly marked with relevant hazard and COSHH information. All containers should be subject to regular inspection and maintenance.
- All activities using fuel should be carried out in dedicated areas which are designed to capture spills, leaks and or drips.
- Stockpiled materials such as soil, sand or hardcore, must be stored in a manner that prevents them being blown or washed away.
- All stored chemicals should be kept a minimum of 10m from watercourses, open drains, gullies, unsurfaced areas or porous surfaces.
- Ensure a suitable spill kit is kept fully stocked on site. All workers must be aware of where it is stored and the procedure to follow in the event of a spill, ensuring the kits are used safely and effectively.
- Any contaminated water or chemicals should be prevented from entering excavations, through the use of cut-off ditches or covering of the excavation.
- Disinfectant stations are located downhill from the proposed water connection into the Jack Pond; this will ensure all runoff from vehicle washing will flow away from any watercourses.

4 Precautionary method of working for nesting birds

This Method Statement is valid for the period of 1 March to 31 August in any given year, the **principle bird nesting period**.

The methods and working practices detailed in this Method Statement will apply to the proposed Site.

Under Section 1 of the Wildlife and Countryside Act 1981 (as amended), it is an offence to remove, damage or destroy the nest of any wild bird whilst that nest is in use or being built. Planning consent for works does not provide a defence against prosecution under this Act.

Therefore:

- Within the validity period of this Method Statement, it is assumed nesting birds will not be encountered during works.
- In order to minimise risks to nesting birds; works where possible, works should be undertaken outside of the main bird nesting season.
- Works can be undertaken in the main bird nesting season if a recent survey has been undertaken by a competent Ecologist to assess the nesting bird activity on site and this has shown, with absolute certainty, that nesting birds nesting birds are not present.

All staff working on the expansion site will be made aware of the potential for nesting birds on-site. If active nests are suspected as being present within the work area at any point during the works, works will be suspended immediately, and the advice of a suitably experienced Ecologist (SQE) sought.

5 Procedure if herpetofauna are encountered during works

Suitable reptile and amphibian habitats currently exist on the Site, and the risk of encountering transient individuals is low the reasonable avoidance measures detailed above are in place to ensure works are undertaken in a timely and sensitive manner. However, should reptiles or amphibians be present during works, the following procedure will apply:

- All staff working on the site will be made aware of the potential for reptiles and amphibians to be present. If reptiles and amphibians are encountered at any point during the works they will be given chance to leave the work area, in the first instance, of their own accord.
- If reptiles and amphibians are encountered and are reluctant to move, they will be captured if possible, and placed carefully in suitable cover away from the work area.
- If encountered only the suitably qualified Ecologist (SQE) will handle animals. If the SQE is off-site when reptiles and amphibians are encountered works will cease in that area until the SQE has been consulted and advice given.

Other Considerations

Any materials brought to the Site for use in the works proposals will be stored off ground until they are required. Correspondingly, any waste products resulting from works will be stored off ground, in an appropriate container until they can be disposed of.

6 Procedure if badgers are encountered during works

It is considered the risk of encountering transient individuals is negligible/low the reasonable avoidance measures detailed above are in place to ensure works are undertaken in a timely and sensitive manner. However, should badgers be encountered during works, the following procedure will apply:

- All staff working on the site will be made aware of the potential for badger, though highly unlikely to be present.
- If the SQE is off-site when badgers are encountered works will cease in that area until the SQE has been consulted and advice given.

Other Considerations

Any material brought on to site for will be stored off ground until needed, any waste products resulting from the works will be stored off ground, in a suitable container until they can be disposed of responsibly off-site.

Any trenches/excavations will be covered overnight or left with a suitable ramped escape route which will take the form of a 45° earth slope left in place at one end of the excavation/trench. The following morning the open excavation/trench will be inspected by the Site Manager or Site Foreman prior to any works re-commencing.

Any temporarily exposed pipes or ducts should be capped at the end of each working day to prevent animals from accessing them.

7 Procedure if hedgehogs are encountered during works

There is suitable hedgehog habitat currently on the proposed Site, reasonable avoidance measures detailed within Method Statement 1 Vegetation removal and deconstruction of artificial refugia are in place to ensure works will be undertaken are sensitive and eliminate the risk to individuals. However, as there is always the possibility that transient individuals may be cross the Site during works, as such the following procedure will apply for the duration of works:

- All staff working on the expansion site will be made aware of the potential for hedgehogs to be present.
- If encountered only the suitably qualified Ecologist (SQE) will handle animals. If the SQE is off-site when hedgehogs are encountered works will cease in that area until the SQE has been consulted and advice given.

Other Considerations

Any material brought on to site for will be stored off ground until needed, any waste products resulting from the works will be stored off ground, in a suitable container until they can be disposed of responsibly off-site.

Any trenches/excavations will be covered overnight or left with a suitable ramped escape route which will take the form of a 45° earth slope left in place at one end of the excavation/trench. The following morning the open excavation/trench will be inspected by the Site Manager or Site Foreman prior to any works re-commencing.

Any temporarily exposed pipes or ducts should be capped at the end of each working day to prevent animals from accessing them.

8 Foraging and commuting bats and other nocturnal fauna

The methods and working practices detailed in this Method Statement apply to the Biodiversity Zone 1 (BDZ1) located in Appendix 4 of this document.

- For the duration of works there will be no artificial lighting introduced.

9 Procedure if otter is encountered during works

Although no field signs of otter were observed during the Preliminary Ecological Assessment or recent records for the site were returned. Suitable for this species is available along the Rover Dearne banks and potentially within sedge beds on the proposed Site, reasonable avoidance measures detailed within

However, as there is the unlikely possibility of encountering transient dispersing individuals, as such the following procedure will apply for the duration of works:

- All staff working on the site will be made aware of the potential though highly unlikely for otter to be present.
- If encountered works must stop the SQE informed, if the SQE is off-site when hedgehogs are encountered works will cease in that area until the SQE has been consulted and advice given.
- Natural England should be contacted for advice.
- A Natural England licence may be required for works to continue.

10 Procedure if water vole is encountered during works

Although no field signs of water vole were observed during the Preliminary Ecological Assessment or recent records for the site were returned. Suitable habitat for this species is available along the River Dearne banks and potentially within sedge beds on the proposed Site.

However, there is the unlikely possibility of encountering transient dispersing individuals, as such the following procedure will apply for the duration of works:

- All staff working on the site will be made aware of the potential though highly unlikely for water vole to be present.
- If encountered works must stop the SQE informed, if the SQE is off-site when hedgehogs are encountered works will cease in that area until the SQE has been consulted and advice given.
- Natural England should be contacted for advice.
- A Natural England licence may be required for works to continue.

11 Procedure if white-clawed crayfish are encountered during works

Although suitable habitat is available along banksides no records have been returned for their presence, signal crayfish are also recorded within the catchment.

It is considered highly unlikely that white-clawed crayfish will be encountered during proposed works, as such the following procedure will apply for the duration of works:

- All staff working on Site will be made aware of the potential, though highly unlikely, for white-clawed crayfish to be present during channel works.
- If encountered works must stop the SQE informed, if the SQE is off-site when hedgehogs are encountered works will cease in that area until the SQE has been consulted and advice given.
- Natural England should be contacted for advice.
- A Natural England licence may be required for works to continue.

12 Procedure if signal crayfish are encountered during works

It is considered highly unlikely that signal crayfish will be introduced to the site or to alternative sites post works as a result of the proposed works, therefore, the main focus is on the prevention of the spread of crayfish plague.

It is considered unlikely that signal crayfish will be encountered during proposed works, as such the following procedure will apply for the duration of works:

- All equipment will be cleaned, checked and dried if signal crayfish are encountered during works and ideally a minimum 16-day period should be left between machinery entering a new site to prevent crayfish spores survival and prevent the risk of spreading crayfish plague to other wetland sites.
- Any animals encountered will be removed and disposed of humanely.

Appendix 4: Biodiversity protection zone (BPZ), safe working areas and access to the Site

BPZ1 along section of northern boundary

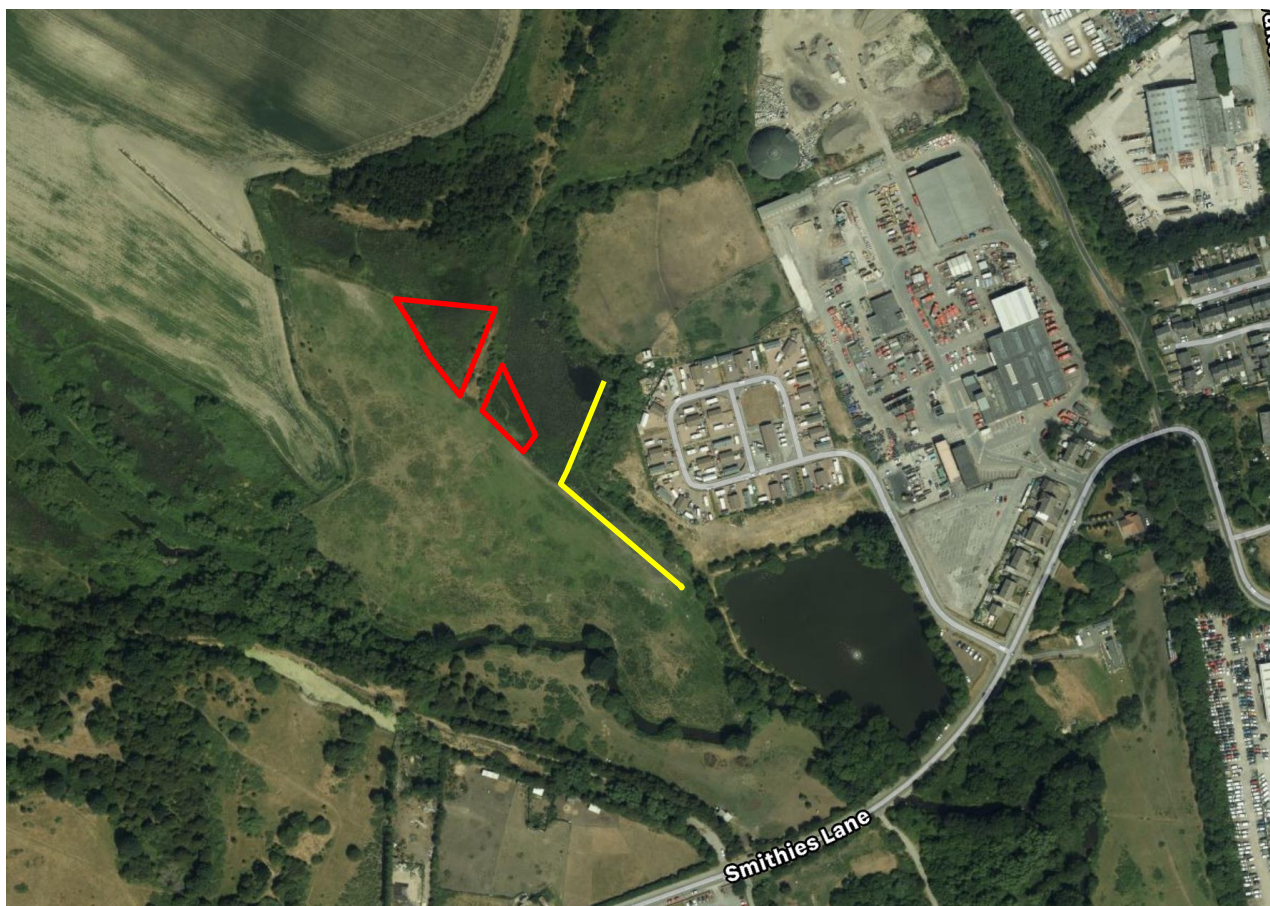
To ensure locally rare species of sedge and rush (*Carex disticha* brown sedge, *Carex acutiformis* lesser pond sedge and blunt-flowered rush *Juncus subnodulosus*) are not adversely affected by travelling machinery the following recommendations are advised:

- An exclusion zone to prevent travelling machinery onto and exiting the site is to be erected

BPZ2 long section of eastern boundary

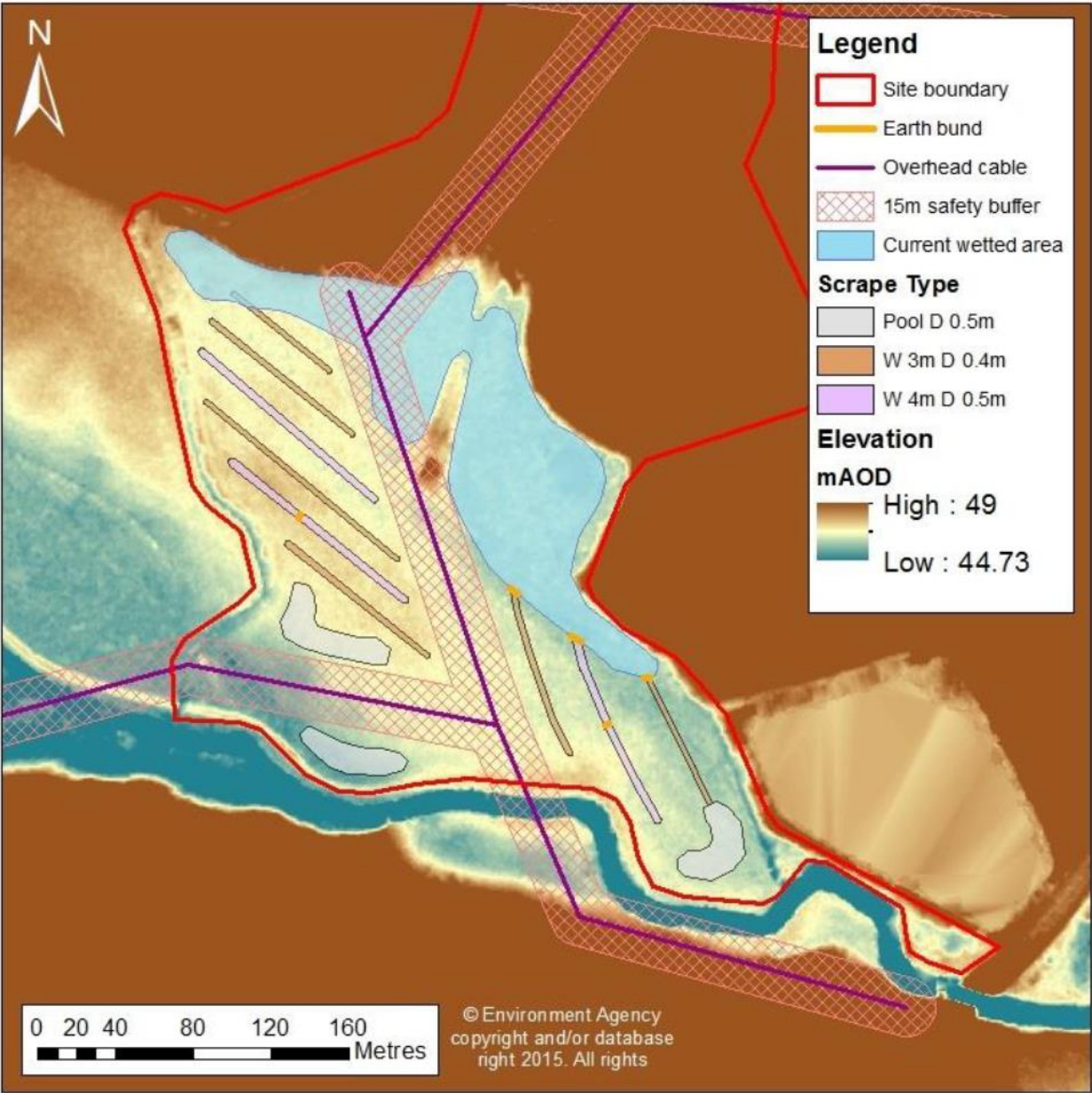
To ensure locally rare species of sedge and rush (*Carex disticha* brown sedge, *Carex acutiformis* lesser pond sedge and blunt-flowered rush *Juncus subnodulosus*) are not adversely affected by travelling machinery the following recommendations are advised:

- An exclusion zone to prevent travelling machinery onto and exiting the site is to be erected along a hedge line on the east of the site

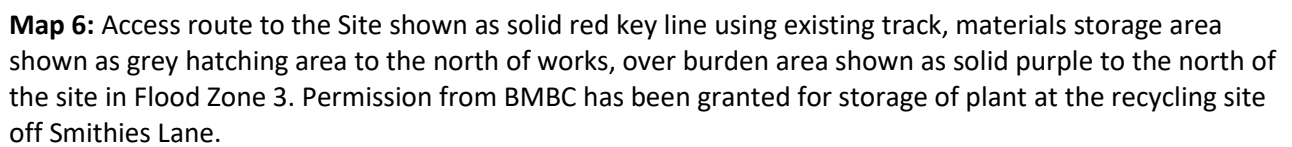


Map 4: BPZ1 shown as red key line: BPZ2 shown as yellow key line

© Google Maps



Map 5: Buffer zones for safe working under overhead cables



Appendix 5: Biodiversity enhancement

Specifications of bat boxes to be installed onsite

3 no. 2F Schwegler Bat Box (General Purpose) are to be installed on mature trees on the northern bank of the River Dearne post works



© Google Maps

Map 6: Location of bat boxes shown as red circle

Appendix 6: Biosecurity information



Yorkshire
Wildlife Trust

Biosecurity Factsheet

This is the standard biosecurity procedure which needs to be undertaken before, during and after all sites visits and practical activity. This applies to staff, volunteers, contractors or anyone visiting or working with YWT on the trusts estate or external site.

WHAT IS BIOSECURITY?

Biosecurity is the principle and implementation of measures to reduce and prevent the introduction and spread of invasive species and notable pathogens. Biosecurity measures are the requisite practical steps to minimise the threat from Invasive Non-Native Species (INNS).

How to use this guide:

1. Use the table below to identify whether you can use the standard biosecurity measures for the activity you are to undertake or whether additional measures are needed.
2. *Standard Biosecurity Measures* need to be implemented every time activity is undertaken. *High Risk Biosecurity Measures* are additional actions which should be completed at particularly sensitive sites or in specific environments on top of standard measures.
3. Use the step by step guide in the Standard biosecurity measures table to understand how biosecurity can be implemented, if high risk biosecurity measures are required guidance on these can be found in the appropriate factsheet.

WHY IS BIOSECURITY IMPORTANT?

We work hard to protect and manage sites for wildlife across Yorkshire, but by not completing standard biosecurity we can be the greatest risk to its decline. Biosecurity is important as it reduces the risk of spreading INNS and diseases across any sites we visit.

WHO DOES BIOSECURITY APPLY TO?

Biosecurity applies to our staff, volunteers and contractors who visit and work at our sites and projects within the community. We recommend that good working practice be used by our visitors as well as all those involved in the outdoor industry.

WHERE DOES BIOSECURITY APPLY?

Biosecurity should apply whenever you are working at or visiting a site, regardless of landownership, location and noted presence of INNS.

Biosecurity Risks	Standard Biosecurity Measures	High Risk Biosecurity Measures
Seeds	✓	
Plant Material	✓	
Crayfish Plague	✗	Use Virkon, for more information see freshwater aquatic factsheet.
Tree and Plant Disease (Phytophthora, Dutch Elm etc.)	✗	Use Cleankill Sanitising Spray, for more information see Woodland Factsheet.
Animal Disease (e.g. Neospora Caninum, Bluetongue etc.)	✗	Use Virkon, for more information see Farm factsheet.
Pests (Killer Shrimps, Asian Longhorn Beetle etc.)	✓	

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Standard Biosecurity Measures

What to Do?

Pre - Visit



1. Check records for any vulnerable species present at site or presence of INNS and diseases e.g. (White-clawed crayfish, Himalayan balsam or tree diseases such as Phytophthora species).
2. If visiting multiple sites can you visit the vulnerable site first and a site with INNS last?
3. If visiting multiple sites it may also prove useful to take multiple equipment to use on the different sites to reduce the risk of possible spread of INNS.
4. Wear footwear and outerwear that can easily be kept clean.
5. Request all attendees visiting site to come with clean and dry footwear (guidance on how to clean footwear can be provided).
6. Plan parking; can you avoid taking vehicle onto site/through muddy areas. Check vehicles regularly; do not let mud and organic material accumulate.
7. Only take the required equipment to site which is thoroughly clean and dry following its previous use.
8. Are you introducing organic material e.g. (trees, plants, wooden posts etc.) or livestock to the site? Check they are supplied by a reputable supplier/stockist.
9. Prepare biosecurity kit and ensure you have a source of fresh/clean water for wash down.



1. Find suitable place on site to start biosecurity measures. This needs to be away from any potential transfer pathways; car parks, footpaths or any other areas that the heavily used or the public can access easily, where there is minimum risk of re-contamination (of yourself or others). Often margins/ or buffer strips provide good areas to carry out your wash down.
2. Check all clothing, footwear and equipment for visible debris; vegetation, seeds etc. It is worth checking hair and even long beards as it has been known for seeds to be transported this way at YWT.



1. Clean footwear and clothing ensuring removal of all debris, rinse with water (use hot water if available).
2. Clean all equipment used (nets, tools, vehicle etc.) with water (use hot water if available).
3. Dispose of the used infected water on site onto a flat area of hardstanding ground or well vegetated area at least 10m away from any watercourse, and where it cannot move into a drain or stream.
4. If possible soak equipment in hot tap water for 15 minutes before drying.



1. Allow equipment to dry thoroughly if equipment is to be used on another site or watercourse. Dry for at least 48 hours before re-use, ideally in a warm well ventilated room.

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Biosecurity Factsheet

Environment: Freshwater (Riparian)



Freshwater Aquatic environments provide an easy pathway for dispersal of INNS. Due to our work often being spread throughout an individual catchment or several different catchments, we pose a large risk of spreading INNS throughout our area of work. Many aquatic invasive species are small, difficult to see and often long lived out of water which makes their spread much more viable.

Did you know... crayfish plague, a fungus carried by the invasive North American Signal Crayfish has led to the near extinction of the native Whiteclaw Crayfish and can survive for up to 16 days on damp equipment!

Elearning GBNNSS Modules *2b Identification of invasive Freshwater Plants*, *2c Identification of invasive freshwater invertebrates* <http://www.nonnativespecies.org/elearning/>

What?	Why?
 Check the site for records of pests and disease.	This can help you avoid infected areas and limit the potential for spread.
 Do you suspect animal disease?	If you suspect pests or disease you should use disinfectant after cleaning your clothes and equipment.
 If you suspect that you may have come in contact with animal disease clean your footwear and/or equipment (including vehicles) following the standard biosecurity measures, and spray using a Virkon S.	Virkon has been independently proven effective against viral, bacterial and fungal disease causing organisms so by using this solution you can reduce the risk of contamination and spread of disease between sites.
 Follow Standard Biosecurity Measures .	

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