NCN 66 Spen Valley Greenway

Ecological - Construction Environmental Management Plan

04 July 2023

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Redacted

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Quality Assurance

Version	Prepared by	Checked by	Approved by	Issued
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The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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1.Introduction

1.1 Background

The purpose of this document is to specify precautionary measures to be adopted during construction activities associated with improvement works for National Cycle Network Route 66 (NCN 66), Spen Valley Greenway. The proposal follows the Government's Local Transport Note 1/20 (LTN 1/20) guidance, which provides best practice standards for high quality cycle infrastructure.

This Ecological Construction Environmental Management Plan (E-CEMP) is required to ensure that environmental receptors and legally protected species and habitats will not be adversely affected by construction activities and impacts on the environment will be minimized and best practice followed.

This E-CEMP should be read in conjunction with the Preliminary Ecological Appraisal (PEA) Report (CCNW February 2023), Ecology Update (CCNW March 2023) and the Tree Statement (June 2023), produced to support this scheme.

The principal author of this report is Derek Hilton-Brown, who is an experienced ecologist and member of CIEEM (MCIEEM), with over 25 years' professional experience. Derek holds survey licenses for bats and great crested newts.

1.2 Site location and description

The linear application site is 2.575km in length. The red line boundary is 2.09 hectares. It follows the alignment of the existing shared use path, National Cycle Network Route 66, between Oakenshaw and Cleckheaton as shown in Figure 1.

This section of path is owned and maintained by Sustrans. The majority of the scheme is within Kirklees Metropolitan Council local authority boundary and consists of a 2.335km section of path. 240m at the northern end of the scheme is within the City of Bradford Metropolitan District Council. The boundary lies just north of Oakenshaw Tunnel at the access point with Green Lane.

The existing surface is asphalt, and it is proposed that it will be replaced with a smooth, sealed asphalt layer. Only 0.723ha of the site will be resurfaced.

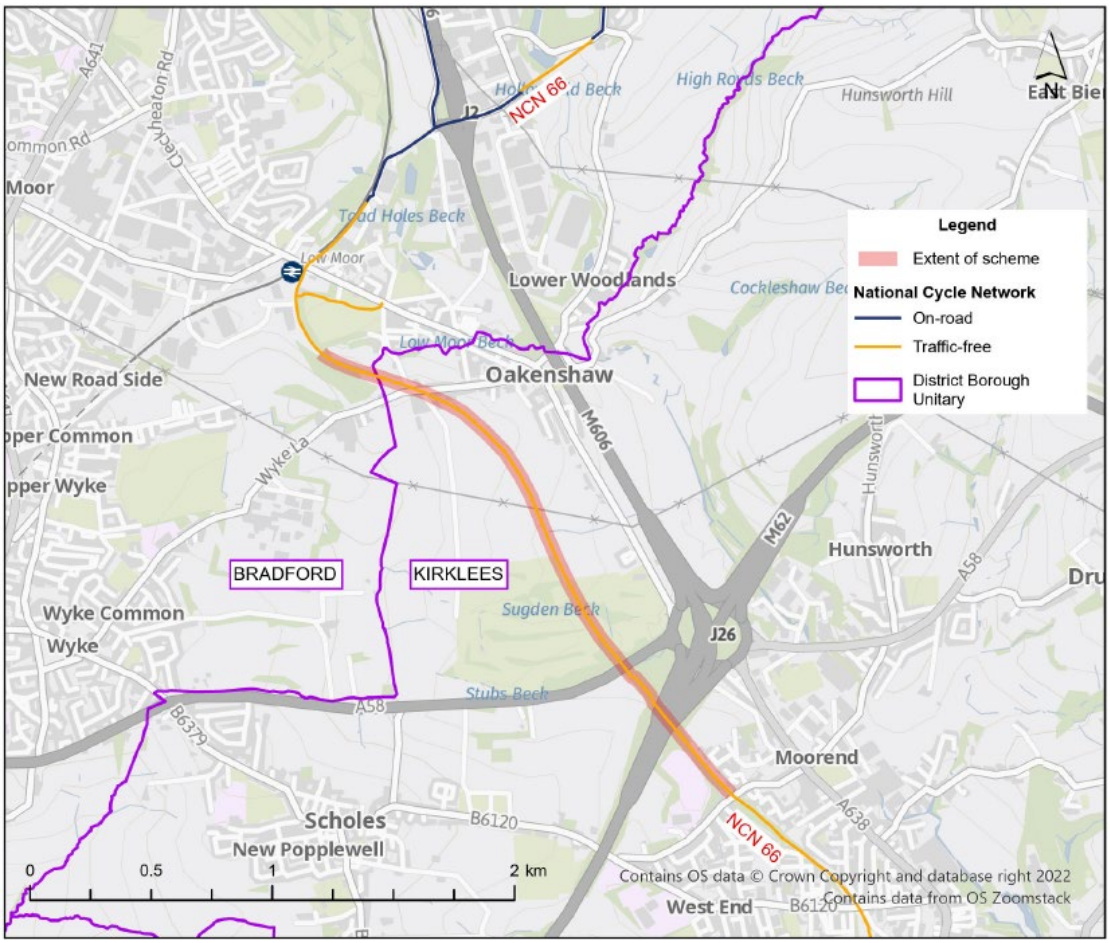
At the northern end the site starts where Sustrans land ownership originates. The first 240m is in Bradford and is a tree-lined bridleway. The route then enters Kirklees. Between the boundary between the two Local Authorities and Oakenshaw tunnel there is an access, with vehicle gate, onto Green Lane. This is an unadopted track which to the north becomes Cross Road and eventually links to Cleckheaton Road. Green Lane to the east provides a link to Wyke Lane. This section of path heading north is designated as a Public Right of Way (PRoW) bridleway (SPE/175/10). South of the access with Green Lane is a permissive path.

Oakenshaw tunnel is a brick arch tunnel approximately 60m long. On the south side of the tunnel there is a steep embankment with a farm located at the top, and a ditch which runs down the side of the path for approximately 150m.

South of this point there is agricultural land on both sides of the path for 700m, after which it is surrounded by land owned by Cleckheaton Golf Club. Two of the overbridges carry PRoW footpaths (SPE/24/20 and SPE/25/10)

The path then travels over two bridges owned by National Highways, over the A58 and M62/M606 interchange. The last 360m is tree-lined with a residential area to the east. An overbridge carries PRoW footpath (SPE/42/10) including access to the greenway. There is a pedestrian/cycle access on to Laithe Hall Avenue on the east side and on the west a ramp which provides access onto Whitechapel Road.

Figure 1: Plan showing extents of the proposed scheme.



1.3 Development Proposals

The proposed improvement works will consist of:

- Widening the existing shared use path from approximately 2.5m (varies) to 3m where possible and resurfacing the full width;
- Lifting short section of path above existing wet area south of Oakenshaw tunnel;
- Addressing areas where tree roots have damaged the path surface and rabbits could potentially undermine the path foundations;
- Redesign two barrier accesses.

1.4 Objectives of E-CEMP

General environmental objectives of this E-CEMP are to;

- Prevent or limit air, water and soil pollution;
- Prevent or limit impacts from noise, vibrations, lighting and fencing;
- Promote general environmental good practice on site; and
- Set out the documentation and incident reporting protocols for site.

The specific ecological objectives of this E-CEMP, as identified in the PEA are;

- To prevent breaches in statutory legislation protecting great crested newts, bats, badger and nesting birds;
- To prevent the spread of Japanese knotweed and Himalayan balsam;
- To minimise damage to trees and other retained habitats; and
- To protect other notable wildlife populations such as hedgehog and common toad.

2.E-CEMP oversight

In order to ensure the E-CEMP is properly implemented and to provide expert guidance and advice, a suitably qualified ecologist, hereafter referred to as the Project Ecologist (PE) should be appointed to oversee the works. The roles and responsibilities of this position are described below.

Where appropriate, the PE can delegate duties to other suitably experienced persons or occasionally delegate minor responsibilities to a nominated site operative. In the latter situation the PE will retain responsibility to ensure all procedures in the E-CEMP will be undertaken.

2.1 Project Ecologist

The PE will be responsible for undertaking and/or supervising all matters relating to ecology during the works. The PE must be supplied with all relevant surveys and E-CEMP and understand their role and responsibilities prior to any work commencing on site.

The role and responsibilities of the PE for specific activities is outlined in the various sections of this E-CEMP, but broadly speaking, the PE will be responsible for;

- Technical input into the working practices, procedures and safeguards for habitats and species that are documented in the E-CEMP;
- Ensure all necessary consents and permits relating to ecological matters are in place before works to which they relate commences;
- Carrying out pre-commencement checks of semi-natural vegetation or other habitat for protected/notable species, invasive species, or other wildlife as outlined, in this E-CEMP;
- Oversee the monitoring of any habitats or features that may be documented in the E-CEMP;
- Act as an Ecological Clerk of Works (ECoW) as detailed in this E-CEMP and provide necessary tool box talks and instructions to contractors;
- Provide ad-hoc advice for any ecological matters that may arise;
- Be responsible for managing any liaison required with environmental regulatory bodies and making sure all works adhere to ecological regulations and legislation;
- Manage and co-ordinate the response to any ecological emergency that may arise; and

- The PE will have the appropriate authority to instruct any construction operations be stopped should the need arise. The PE will also have the authority to permit construction operations to start/continue.

2.2 Project Arboriculturist

The Project Arboriculturist (PA) will be responsible for undertaking and/or supervising all matters relating to trees during the works. The PA must be supplied with all relevant surveys and E-CEMP and understand their role and responsibilities prior to any work commencing on site.

The role and responsibilities of the PA for specific activities is outlined in the various sections of this E-CEMP, but broadly speaking, the PA will be responsible for:

- Technical input into working practices, procedures and safeguards for trees, hedgerows and woodland outlined in this E-CEMP;
- Ensure all necessary consents and permits relating to arboricultural matters are in place before works to which they relate commences;
- Liaising with the PE with regard to any ecological risks associated with any proposed arboricultural work e.g. pre-commencement checks for nesting birds, roosting bats or other wildlife outlined in this E-CEMP;
- Liaising with the Contractor and PE to maximise retention of trees, through localised realignment of the path or other methods;
- Advising on and supervising where necessary the installation of tree protection barriers and undertaking an inspection of all installed tree protection barriers;
- Provide ad-hoc advice for any arboricultural matters that may arise;
- Be responsible for managing any liaison required with environmental regulatory bodies (e.g. the LPA tree officer) and making sure all works adhere to arboricultural regulations and legislation; and
- Manage and the co-ordinate the response to any arboricultural issue that may arise. The PA will have the authority to instruct any arboricultural or construction operations to be stopped should the need arise. The PA will also have the authority to permit operations to continue, in conjunction with the PE and project management team.

3. General environmental controls

This section briefly describes general environmental control measures the Contractor will be responsible for implementing to minimise identified risks. Where there are interactions with specific ecological controls, this is highlighted.

3.1 Air Quality

Construction activities may produce dust and site vehicles produce greenhouse gases, particulate pollution and other pollutants. Dust deposition can harm vegetation and other ecosystems and, if present in significant quantities, cause habitat loss and degradation[1]. Other airborne pollutants contribute to climate change and localized impacts on health and the environment.

Given the small scale of the construction activities a 'control of dust at source' approach will be used limiting materials and operations that will produce dust.

The following protocols will therefore be adopted across the site, for the duration of the work:

- Site vehicle usage
    - Ensure all vehicles are well maintained so that exhaust emissions do not breach statutory limits.
    - Implement a site-wide policy for vehicle engines to be switched off when not in use i.e. no idling.
    - Use existing hard surfaces for vehicle movements where possible to limit the dust arisings from moving vehicles.
    - Limit the fall distance for materials onto lorries or into the working area.

[1] IAQM (2014) *Guidance on the assessment of dust from demolition and construction* https://iaqm.co.uk/guidance/

- Equipment and material usage
  - Restrict cutting or grinding operations to locations agreed with the PE away from ecologically sensitive areas.
  - Wherever possible, fit equipment likely to produce a lot of dust with suppression equipment (e.g. vacuums or water sprays).
  - Limit the fall distance for materials onto lorries or into the working area.
  - Stockpiling and storing materials in an appropriate manner to ensure that dust particles are prevented from becoming airborne.

- Other measures
  - Banning the use of fires or any form of burning on site.
  - Construction operations will be monitored for dust.
  - Where necessary, damping down construction operations during dry weather to minimise dust particles becoming airborne.
  - Where necessary, erect fencing and/or hoarding to limit dust dispersion.
  - Where necessary, regularly sweeping all roads, footways and/or hard standing areas.

3.2 Water and Soil pollution

Watercourses are very sensitive to pollution events therefore no storage of materials or site compounds during the construction phase will be permitted within 10m of any streams, ditches or waterbodies. Advice from an ecologist should be sought when undertaking site compound arrangements.

Full pollution control measures to be implemented as per the principles set-out in the Guidance for Pollution Prevention (GPP 1 – 29)[2].

The working area has been kept as small as possible (generally a maximum 5m wide corridor) to ensure there is not a significant impact on the adjacent habitats or wildlife.

- All arisings will be carefully excavated and transported on-site. Storage of materials at the work face will be limited and hence materials will be distributed in the vicinity as they arise or may need to be stored at the temporary compound until a suitable use can be identified.

[2] https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/

- Under no circumstances will waste chemicals or fuels be discharged or allowed to discharge onto the ground.
- A suitable number of spill kits will be kept in the vicinity of the works in progress. Used spill kits will be disposed of appropriately (i.e. as hazardous waste, where relevant) and the appropriate environmental regulator immediately notified by the Contractor.

3.3 Noise and Vibration

Noise and vibration resulting from the works has the potential to affect protected and notable species present, and so must be managed according to the best practicable means. The following mitigation measures must always be implemented by the Contractor to minimise noise and vibration generated from site activities:

- Control vehicle movements in and around areas adjacent to a sensitive ecological feature (e.g. potential bat roost features) as well as ensuring vehicles are not stood with engines idling.
- All plant, equipment and machinery used on site (including construction traffic to/from the site), will be designed and maintained to reduce noise levels to a minimum in order to meet the requirements of relevant EU directives and UK Statutory Instruments that limit noise emissions from construction plant, such as: *Council Directive 79/113/EEC*, *Council Directive 86/662/EEC*, *Council Directive 86/662/EEC*, *Council Directive 95/27/EC* and the *Construction Plant and Equipment (Harmonisation of Noise Emission Standards) Regulations, 1988 SI 361*.
- All plant equipment and machinery used on site, (including construction traffic to/from the site), which is capable of being fitted with the appropriate silencers, baffles, cladding and rubber linings will be so fitted and maintained.
- Regular maintenance of plant in accordance with manufactures instructions.

Any change to the working methodology or other noise mitigation procedures will be recorded in the CEMP and distributed to site staff by means of a Toolbox Talk.

3.4 Lighting

Many of the site's potential species are partly or wholly nocturnal (e.g. bats, great crested newts, badgers and hedgehog). In view of this, the following precautionary approach should be adopted for artificial lighting during construction. Further advice from the PE must be sought if there is a requirement to deviate from any of the general measures set out below.

- No night working or other construction work requiring artificial lighting (including security lighting) should be undertaken.
- If any such lighting becomes essential to operations it must be directional LED lighting, aimed only where necessary, with no light spill onto watercourses, trees, hedgerows or bridges. Security lighting should be operated on motion sensors. Such lighting may only be implemented under the guidance of the PE.

3.5 Fencing

If fencing is to be installed controlling access during the works, this has potential to limit wildlife movements through the site. Fencing design should be agreed with the PE and should include a 15cm gap underneath to enable the majority of wildlife to move across the site unimpeded.

3.6 General good practice on site

Working areas should be minimised to prevent activities encroaching onto habitat or features that are to remain unaffected by the work.

- Dumpers should be fitted with reversible cabs to remove the requirement for passing places, e.g. Dualview cabbed dumper, or suitable equivalent'
- Any additional working areas and vehicle movements outside the anticipated 5m construction footprint, for example for storage of materials, distributing arisings from clearance, excavation or vehicle turning will be agreed with the PE/ECoW and Contractor/site supervisor to minimise ecological damage. These may need to be clearly marked (e.g. with hazard tape, fencing or temporary spray paint). Any such marking will be removed as soon as possible when the work is completed.
- All cleared vegetation will be removed from the working area by the end of each day so that it does not attract wildlife into the works area. Material should be used to create wildlife habitats well away from the working area or removed from site, as agreed between the PE/ECOW and Contractor Project Manager.
- No litter, rubbish or other materials should be left on site by any workers.

3.7 Documentation

A copy of this E-CEMP will be kept and maintained on-site throughout the construction period. It will also be included as an appendix in the main Construction Management Plan.

The PE will be responsible for communicating any proposed revisions to the E-CEMP to the Contractor with sufficient notice such that any reasonable adjustments to working methods and/or construction phasing or programme can be agreed.

The PE will raise any major changes with the Project Management Team, as required.

3.8 Incident Reporting

An Environmental Incident Management Plan (EIMP) should be drawn up to document the measures to be employed on site.

4. Specific measures

The habitat loss is not considered significant, but the disturbance must be minimised by keeping the work footprint to a minimum. The measures comprise of the following:

- Working areas should avoid any retained habitat and no vehicle tracking is permitted outside of the construction area (existing path). Where turning areas are necessary, these must be agreed with the ECoW.
- Dumpers to be used onsite should be fitted with reversible cabs to remove the requirement for passing places within the construction area, e.g. Dualview cabbed dumper, or suitable equivalent'
- Measures should be implemented to avoid indirect impacts on retained habitats, such as run-off or accidental encroachment from working vehicles, material or operatives. Suitable protective fencing should be installed as required, to be directed by the ECoW.
- Any materials generated during works will be placed on the path/hardstanding adjacent to the area of works and then moved to the prearranged storage area or locations agreed by the ECoW.
- Waste materials should be removed off site immediately or stored in skips within the compound area.

Specific measures required to protect habitats and species are detailed in Sections 4.1, 4.3 and 4.4 of this E-CEMP. Measures to prevent or limit the spread of non-native invasive species are detailed in Section 4.2.

4.1 Habitats

4.1.1 Trees and woodland

Trees and woodland have been identified in the PEA as ecological features that require protection and appropriate measures are outlined below:

- Any tree over 15cm diameter at 1.4m above ground level, that is proposed for removal/trimming must first be agreed with the PA or ECoW to ensure alternative

options have been considered and that legal obligations and best practice will be met.

- Where tree removal or pruning is required, it must be assessed by the PE or suitably experienced ECoW for its potential to support roosting bats (see Section 4.3.4) or any other ecological risk. **To fell any tree that has not been confirmed by the PE or ECoW as having no potential to support roosting bats could result in a criminal offence.**
- Details of tree protection measures will be included within site inductions to new staff working on site.
- The Contractor will then be responsible for ensuring all sub-contractors adhere to the protective measures for trees.

The Arboricultural Planning Statement (June 2023) must be read in conjunction with this document. This report outlines the measures required to safeguard trees and hedges within or adjacent to the construction area.

All retained trees and hedgerows within or adjacent to the construction area must be protected in accordance with current best practice. This is detailed in British Standard Institution's; BS 5837: 2012 Trees in Relation to Design, Demolition and Construction. In summary, the appropriate protection of retained features will entail:

- No materials that are likely to have an adverse effect on tree health (such as oil, bitumen or cement) will be stored or discharged within 10m of the trunk of any tree that is to be retained.
- No fires will be lit on site.
- All tree works should be completed prior to construction work i.e. before Construction, Exclusion Zones and protective barriers are imposed, as per below:
    - Works to any mature specimens will follow recognised best-practice guidance for such trees.
    - Where the removal of tree stumps is required within 15m of any retained tree, the stump must be ground out using a proprietary stump grinder and must not be removed by winching or mechanical excavation.
- a Construction Exclusion Zone (CEZ) will be defined around retained trees, in advance of a given phase/linear stretch of work, as the programme progresses. The CEZ will consider both the stem and canopy of any trees that could potentially be impacted. The CEZ then controls the following:
    - no level changes (i.e. regrading or other such earthworks);

- no excavation;
- no storage of plant or materials;
- avoidance of herbicide (except where carefully targeted e.g. use of ecoplugs[3]), and
- any chemical storage/mixing station must be located outside of a CEZ such that any accidental contamination could not run into the CEZ and pollute soil or roots. A non-permeable membrane, sandbags etc. should be used where required to contain any spillage.

- the CEZ will be delineated by suitable fencing/barriers in accordance with the specification detailed in BS5837:2012, or as directed by the PA or ECoW.
  - The Contractor will inform the PA when such fencing has been installed, so that it can be inspected and the LPA advised that it is in place.
  - The fencing/barriers will remain in place until all work in that linear section has been completed.
  - Periodic (monthly) monitoring of the integrity of fencing will be undertaken by the PA, ECoW or Project Manager with a log made available to the LPA, on request.

4.2 Invasive species

Japanese knotweed and Himalayan balsam have both been recorded along the route. These are non-native invasive plant species which, under Schedule 9 of the Wildlife and Countryside Act (see Appendix 1), makes it an offence to "*plant or otherwise cause to grow in the wild*" such species. Measures are therefore required to ensure construction does not cause these species to spread or increase in abundance.

4.2.1 Japanese knotweed

One small area of Japanese knotweed was present adjacent to the path but outside of the proposed development corridor. This had been previously treated with herbicide and no sign of new growth was apparent during surveys. However, care should be taken as this species may be spread by the movement of soil contaminated with its rhizomes (stem/roots). The following measures are required:

- The ECOW will mark up the Japanese knotweed zone prior to any construction vehicles accessing the site. These will be signed and fenced in a manner agreed with

[3] https://www.agrigem.co.uk/ecoplug-max-box-of-100?gclid=Cj0KCQjwmIuDBhDXARIsAFITC_7z-TFsuC-ahmyLQ5A9RRH3t8Wqhusmhvn41Qvne4baF_nWOe6T5TcaAoP7EALw_wcB

the contractor to prevent access. The signage and fencing will be left in place until all site works are complete and then removed.

- A Japanese knotweed tool box talk, including its identification at the relevant time of year, will be included in the site induction for all construction staff.

- If construction staff identify any additional Japanese knotweed in or around the works area. The Site Manager will immediately impose an 8m buffer in which all works, and movement of vehicles/machinery will be suspended. The PE will then be contacted immediately for advice.

4.2.2 Himalayan balsam

One area of Himalayan balsam was identified during the PEA. This was not within the footprint of the proposed works. However, care should be taken as this species may be spread by the movement of soil contaminated with its seeds.

The following measures are required:

- The ECOW will mark up the Himalayan balsam zone prior to any construction vehicles accessing the site. These will be signed, marked up and fenced in a manner agreed with the contractor to prevent access. The signage and fencing will be left in place until all site works are complete and then removed.

- A Himalayan balsam tool box talk will be included in the site induction for all construction staff.

- If construction staff identify any additional areas of Himalayan balsam in or around the works area. The Site Manager will immediately impose a buffer in which all works, and movement of vehicles/machinery will be suspended. The PE will then be contacted immediately for advice.

4.3 Protected species

Specific protection measures have been identified as necessary to protect great crested newts (GCN), badger, bats, nesting birds and hedgehog. Should any of these or other protected species be discovered during the construction phase of the development, all works must stop immediately, and the ECoW or PE contacted to provide ecological advice. The same action is required in the event that any other wildlife is placed in a perilous position as a result of site activities.

4.3.1 Great crested newts

The closest known site for GCN was 1.6km South-West but suitable terrestrial habitat existed on site. This species and their habitat are legally protected (see Appendix 1). Although Impacts are unlikely works will be undertaken to a precautionary approach as set out below:

- Inspection of works area by PE/ECoW. Any minor refuges (rubble, piles of logs or debris) will be carefully removed by hand prior to the start of works, checking for the presence of amphibians.
- All site personnel will be provided with information (either through the Site Induction at the start of the works or through specific toolbox talks) which will cover the precautionary working methods together with the ecology, relevant legislation and identification of GCN as well as what should be done in the event that any GCN are discovered during works when an ECOW is not present.
- Areas of long grassland (>30cm) on site should be searched by the ECoW/PE for any animals or debris under which amphibians could be hiding prior to any strimming or clearance works.
- If any GCN are discovered by operatives anywhere on site while working without an ECOW present, works in that area must stop immediately with advice sought from the PE/ECOW at the earliest opportunity.
- Materials stored on site will be stored on pallets, where possible, to avoid creating resting and hibernation opportunities.
- Disposing of all arisings outside of the working area, to avoid creating new GCN habitat which could potentially create a constraint and delay to later works.

4.3.2 Nesting birds

All vegetation clearance will be undertaken at the start of the project prior to the peak bird nesting season commencing (before March 2024). The peak bird nesting season extends March to August inclusive, but may extend into September for certain species.

All cleared vegetation must be removed from the working area at the end of each day. The ECoW will advise of any locations outside the working area where it might be desirable to create log/brash piles, or if any materials should be preserved for reuse elsewhere on the project.

If any additional pruning or vegetation clearance is required between March and September this may only proceed subject to a nesting bird check by a suitably qualified ecologist. The findings of any nesting bird checking surveys will be recorded in a ‘site diary.’ If birds are nesting, no work that may disturb that nesting attempt may occur. PE/ECoW will be able to advise on buffer zones within which certain works cannot be undertaken until the nesting attempt has naturally finished.

4.3.3 Badger

See separate bespoke badger Method Statement produced by CCNW (Ecology Method Statements 01/07/23). All works must comply with this precautionary Method Statement.

4.3.4 Bats

Trees and structures were noted to have potential to support roosting bats along the Spen Valley Greenway.

Bats and their roosts are legally protected (Appendix 1). In summary, this makes it a criminal offence to capture, kill, injure, or take (handle) a bat; disturb a bat; damage, destroy or obstruct access to any breeding site or resting place of a bat, or any structure or place that a bat uses for shelter or protection. Therefore, any structures or trees that are to be affected directly (through site clearance, demolition or modification) or indirectly (through light/noise/vibration or removal of substantial amounts of adjacent vegetation), during any stage of the scheme, could contravene the legislation and require an application to Natural England (NE) for a protected species mitigation licence.

The risk of contravening legislation relating to bats is considered to be low and avoidable. The two locations where precautionary checks and working methods are required are when pruning or felling trees and working within the Oakham Tunnel.

All site personnel will be provided with information in the Site Induction at the start of the works or through specific toolbox talks which will cover operations that could impact bats and the work protocols outlined below.

- Tree pruning

If a standing tree of >15cm diameter at 1.4m above ground level must be removed or pruned (provided this has first been cleared as permissible by the PA) then the following measures are proposed to ensure no breaches occur in legislation relating to bats:

  - The tree, and any other adjacent trees that could be subject to disturbance, must first be assessed for its bat roost potential by the PE.
    - If the tree is assessed as having low or negligible potential, the works can proceed, within the period covered by this CEMP, with an ECOW present.
    - If the tree is assessed as having moderate to high bat potential, or it is uncertain, the PE will determine whether the proposed works can be conducted in a manner that would not breach legislation relating to bats.

- Works within the Oakham Tunnel

See separate bespoke bat Method Statement, produced by CCNW (Ecology Method Statements 01/07/23) for works within the Oakham Tunnel. All works within the tunnel must fully comply with this document to prevent a breach of legislation in relation to bats.

- Works under trees

Bats may be present roosting in trees along the route. Given the limited scale of construction, it is anticipated that disturbance to any bat roosts present are unlikely and can be avoided through adherence to the following measures;

  - No vehicles will be left parked or idling under trees.
  - No generators will be run within 30m of mature trees unless agreed with the ECoW based on an inspection for potential roosting features.
  - No fires are permitted on site.
  - No chemical storage/mixing stations will be located under the trees.
  - Artificial lighting, including security lighting, is to be avoided wherever possible. If it becomes essential for the project, then the type and location of lighting must be agreed with the PE to avoid any trees with potential bat roost features.

- Temporary construction lighting

Section 3.4 has already specified that artificial lighting, including security lighting, should not be introduced at the site unless such lighting becomes essential to operations. If such lighting becomes essential, it may only be implemented under the guidance of the PE:

  - Potential bat roost features in trees and bridges must not be directly illuminated;
  - Potential commuting and foraging corridors such as lines of trees must not be illuminated; and
  - Lighting must be designed to have low impact on bats with regards to type, duration, location and lightspill.

4.4 Other notable species

The PEA identified the potential presence of notable species such as common toad and hedgehog. It is anticipated that the general environmental protection measures already set out and the specific measures to protect habitats will minimise any impact on these species. These and the measures to protect badger and great crested newts will provide appropriate protection for hedgehogs and toads and any other common amphibians present.

Any wildlife such as common amphibian species without statutory protection found in a location in which it may be in danger should be gently moved, in a clean bucket if appropriate, to a suitable location within nearby habitat away from the working area.

Further information relating to protected and notable species is provided in the Ecology Method Statements (01/07/2023 produced by CCNW for Sustrans works along the Spen Valley Greenway, Cleckeaton – Low Moor.

Appendix 1

Wildlife Legislation and Policy

The following legislation and guidance are relevant to this particular scheme and the recommendations provided within this E-CEMP:

Species

- Badger

Badgers and their setts are protected by the Protection of Badgers Act 1992. It is an offence to kill, injure or take a badger, intentionally or recklessly damage or destroy a badger sett, or obstruct access to it, or disturb a badger when it is occupying a sett.

- Bats

All species of British bat receive full protection under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This affords bats and their roosts strict protection under the Regulations. Additional protection for bats is also afforded under the Wildlife and Countryside Act 1981 (as amended) and a subset of the British bat assemblage are listed as 'Species of Principal Importance' within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

- Birds

All wild birds, their nests and eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), with certain species afforded additional protections. In addition, certain conservation concern species are listed as priority species within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

- Great crested newts

The great crested newt (GCN) is fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended), which are themselves transposed in to domestic law by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. The

legislation protects the newts and their places of shelter or protection, which may typically extend 500m from the breeding pond.

- Hedgehog

Hedgehog is a priority species listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The route offers good foraging and refuge opportunities for this species.

- Invasive Species

Under Section 14 of Wildlife and Countryside Act 1981, it is illegal to release or allow to escape into the wild any plant or animal as listed in Schedule 9 of the Act. Offences under Section 14 can carry a maximum penalty of a £5,000 fine and /or 6 months imprisonment. Schedule 9 species includes plants such as Japanese knotweed, which has an adverse impact on local plant communities.

The Environmental Protection Act 1990 and subsequent waste regulations classed discarded soil contaminated with propagules, as 'controlled waste' to which a Duty of Care applies. If taken off a site, this material must be disposed of at a suitably licensed landfill site and buried to a sufficient depth as determined by Environment Agency.

Soil containing Invasive Species is regarded as ‘controlled’ waste and cannot be reused in further construction or landscaping without appropriate remediation works. When disposing of soil contaminated with Invasive Species, it is essential that the landfill operator is made aware prior to acceptance.

- Rabbit

Rabbits are afforded protection under the Wild Mammals (Protection) Act 1996. This Act makes it an offense for any person to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

However, the Prevention of Damage by Rabbits Act 1939 means landowners are obliged by law to control rabbits on their land. An Order was made under Section One of the Pests Act 1954 by which England and Wales (except for the City of London, the Isles of Scilly and Skokholm Island) were declared a Rabbit Clearance Area. In this area, every occupier of land is responsible for destroying wild rabbits on his/her land or for taking steps to prevent them causing damage. This is a continuing obligation.

- Species of Principal Importance

Section 40 of the NERC Act places a duty on public authorities to conserve biodiversity in the exercise of their normal functions such as decision-making. 'Conserving biodiversity' may include enhancing, restoring or protecting a population. Section 41 of the act includes lists of types of species regarded to be of "principal importance" for the purposes of conserving biodiversity in England. These 943 priority species are drawn from the UK Biodiversity Action Plan Priority Species. The Section 41 list is used by decision-makers in local authorities when carrying out their duties under Section 40 of the Act. As such when determining planning applications, it must be demonstrated that impacts on populations of species of principal importance are avoided, mitigated or sufficiently compensated.

Habitats

- The Hedgerow Regulations

The Hedgerow Regulations[4] protect 'important' hedgerows by controlling their removal through a system of notification. The Regulations apply to lengths of hedgerow greater than 20m in length, not adjoining residential curtilages. 'Important' hedgerows are defined within the regulations on a variety of historical and/or ecological criteria. Some work on hedgerows, such as creating alternative or temporary access is permitted under certain conditions. More significant impacts on the hedgerow will require Local Authority consent.

- Habitats of Principal Importance

Section 40 of the NERC Act places a duty on public authorities to conserve biodiversity in the exercise of their normal functions such as decision-making. 'Conserving biodiversity' may include enhancing, restoring or protecting a habitat. Section 41 of the act includes lists of types of habitats regarded to be of "principal importance" for the purposes of conserving biodiversity in England. These 56 priority habitats are drawn from the UK Biodiversity Action Plan Priority Habitats. The Section 41 list is used by decision-makers in local authorities when carrying out their duties under Section 40 of the Act. As such when determining planning applications, it must be demonstrated that impacts on habitats of principal importance are avoided, mitigated or sufficiently compensated.

[4] The Hedgerow Regulations 1997 (HMSO, 1997)

Appendix 2

Example Information for On-site Toolbox Talks

Toolbox talk 3: protected species

Bats

What are they and how are they recognised?

Some species of bat are only as long and wide as a human thumb so can crawl into tiny cracks and crevices in trees, walls, eaves and roofs. They have a small body covered in brown or grey fur on their backs and usually paler beneath, with comparatively large, leathery wings that are folded against the body when roosting. Flying bats appear much larger – their wingspan can be up to 400 mm. Below roost entrances (holes, cracks etc), dark stains or bat droppings may be seen stuck to surfaces or on the ground. Bat droppings are dark brown or black and about a centimetre long. They are similar to mouse droppings, but are softer and crumble up when crushed.

Where are they found?

Bats occur in both rural and urban areas, including woodland, farmland, parks and gardens. They are often seen feeding over a variety of habitats including marshes, lakes, ponds, canals, rivers, hedgerows, woodland and grassland. Bats use many different roosting places for resting, breeding and hibernating including:

- holes and cracks in trees
- roofs and walls of houses and buildings
- under bridges
- underground in caves
- old railway tunnels.

Every building and mature tree is a potential bat roost.

When are they found?

Bats may be found hibernating in caves, buildings or trees from November to March, and possibly in October and April. New-born young and female bats may be found in breeding roosts in buildings and trees from May to September.

If a bat or a bat roost has been found on site, stop all works in the area immediately and consult an expert.



(courtesy Scottish Natural Heritage)

What should be done if a bat or bat roost is found?

If a bat or a bat roost is found stop works immediately and consult an expert. Only licensed bat-workers are legally allowed to enter known bat roosts or to capture or handle bats. It is illegal to injure, kill, capture or disturb a bat, or to damage trees, buildings or other places used for roosting (even if bats are not currently present).

Penalties

Breaking the law can lead to fines of up to £5000 per offence and, potentially, prison sentences of up to six months. Damaging or destroying a bat roost – even if not in use at the time – can lead to prosecution. Any vehicle or other items used to commit the offence may be forfeited. Both the company and/or individuals can be held liable.

Toolbox talk 7: protected species

Great crested newt

What are they and how are they recognised?

Newts are amphibians – they can live both in water and on land. Adult great crested newts (GCN) are 110-170 mm long (about twice as big as other newts) and are black or dark brown. During spring and summer, males have a jagged crest along the back and the tail has a silver stripe along it. The females do not have the crest or silver tail stripe, but have a bright orange stripe along the bottom of their tail. Both males and females have bright orange bellies with black spots.

Where are they found?

GCN occur in rural, urban and suburban sites. GCN usually prefer medium to large ponds in which to, but can be found in any body of water on site including temporary pools. GCN spend most of their time on land – they can be found in grass, scrub and woodland and under logs and stones within 250 m to 500 m of the breeding pond.

When are they found?

GCN are nocturnal and are seen mostly at night. They are found in ponds between March and June , but can be seen on land at any time of year.

What should be done if a GCN is found?

GCN are fully protected against killing, capture, injury and disturbance, and the places they use for shelter or protection are protected against damage, destruction or obstruction. If a GCN (adult, juvenile or tadpole) is found (or suspected) on site after works have started, all works in the area must stop immediately and expert advice must be sought.

If there is any doubt of the newt species that has been found, stop work and consult an expert.



What else may be seen?

If GCN are found in a pond, common and/or palmate newts may also be found. Common and palmate newts do not receive the same protection as GCN except in Northern Ireland where the common newt is fully protected. Adults of these species are about the same size as young GCN but are a lighter colour.

Penalties

Breaking the law can lead to fines of up to £5000 per offence and, potentially, prison sentences of up to six months. Any vehicle used to commit the offence may be held liable.

Toolbox talk 21: pest species

Invasive plants

What are they and how are they recognised?

Some plants are so invasive that they have become a problem, particularly to UK native flora. The three species that are most commonly encountered on construction projects are:

Japanese knotweed

This spreads solely by vegetative means as fragments of root or stem as small as 0.7 g may regenerate into new plants. In the spring it emerges from the ground appearing quite reddish at first and grows rapidly so by the summer has normally achieved a height of two to three metres. The leaves are shaped like a shield with a small pointed tip and are 1.5 times longer than they are wide, 10 cm to 15 cm long and are bright green.

Japanese knotweed is not harmful to human health in any way.

Giant hogweed

Unlike Japanese knotweed, giant hogweed produces seed prolifically, as many as 50 000 seeds per plant with them remaining viable for up to 10 years and are readily dispersed. It can take four years for plants of giant hogweed to flower, but when they do they are unmistakable. They can grow up to five metres tall and have large umbels of flowers on top of each stem, rather like a giant version of cow parsley. They should not be mistaken for its cousin the common hogweed, which is a smaller plant.

Giant hogweed is of concern because of its poisonous sap, which can cause blistering of the skin.

Himalayan balsam

An annual plant that grows to about two metres in height and produces purplish-pink slipper shaped flowers in June to August. When mature, the seed pods explode if touched and disperse their seeds over several metres. Seeds may be further spread by being picked and moved by water. It forms dense stands that suppress other vegetation and can leave river and stream banks bare and vulnerable to erosion.



Where are they found?

Japanese knotweed is especially prevalent on wasteland, along railways and around water bodies, particularly in Wales and the south-west.

Giant hogweed is also found in a range of habitats, but appears to favour wastelands, roadsides and especially waterside situations.

Himalayan balsam prefers damp habitats and may form dense monocultures along river, stream and ditch banks and in damp woodland.

When are they found?

All three plants start to become visible in early spring (March/April) and grow rapidly during the summer. The dead remains persist throughout the winter. Those of Japanese knotweed resemble a reddish brown bamboo.

TOOLBOX TALK: COMMON AMPHIBIANS

Common toad, common frog, smooth newt and palmate newt

Did you know?

- Species of common amphibian include common toad, common frog, smooth newt and palmate newt.
- Amphibians can be found on a wide range of sites, including brownfield and active industrial, sites.
- UK populations are showing a general decline.
- All amphibians require waterbodies for breeding but will spend much of their lives on land.
- A link between a suitable breeding pond and terrestrial habitat is essential for their survival.
- During winter, amphibians will hibernate on land (although some may over-winter in ponds) and may not wake up if disturbed. Furthermore they will be very slow moving when cold. This makes them vulnerable to site works, especially during winter months.
- Unlike GCNs, the four common species are not protected by European law and you do not need a licence to handle them.

Identification

- Smooth and palmate newts can easily be mistaken for great crested newts (GCNs) and common lizards due to their similar size, body shapes and colouring.
- On land, lizards are much faster than newts and can disappear in the blink of an eye. Newts' movement however is slow and lumbered.
- Smooth and palmate newts are smaller than GCNs, growing up to 11 cm long and their skin is smooth and velvety in appearance, whereas GCN skin is warty and common lizard skin is scaly.
- Mature GCNs may grow up to 17 cm long. Most of their skin is dark brown or black and warty in texture/appearance with an orange/yellow and black pattern on their tummy.
- Common frogs and toads look similar to each other but can be told apart by their skin. Toads have loose, warty skin and frogs have tight, smooth skin.
- All four species breed in ponds. The eggs, or spawn, of frogs and toad look like black pin heads covered in a clear jelly. Frog spawn is clustered together, whereas toad spawn forms chains.

Legislation

- All species are protected under Section 9(5) of the Wildlife and Countryside Act 1981 against being sold, offered for sale or being held or transported for sale either dead or alive, whole or part.
- **GCNs are protected by UK and European Law**. This makes it illegal to intentionally or recklessly kill, injure or take, intentionally or recklessly disturb whilst occupying a 'place used for shelter or protection' and protects these places against destruction.
- Common toads have been identified as a UK Priority Species, of principal conservation importance, under Section 41 of the NERC Act 2006.

Site Controls

- Although not specifically protected, in accordance with good practice, care should be taken when clearing sites to ensure no species of amphibian are harmed.
- In the event of GCNs being encountered it is a legal requirement to stop work immediately and Natural England informed so that appropriate advice can be provided.

These controls have been put in place to protect all site operatives from breaking the law. You are not expected to be an expert, **if in doubt please ask the ECoW for advice.**

Key Contact:
ECOLOGICAL CLERK OF WORKS
CHECK WITH SITE MANAGER


Adult common toad.


Adult common frog.


Female smooth newt.


Male palmate newt.


Male adult GCN.