Crest Nicholson

# Crossley Lane, Dalton; Parcels 4 & 5

# CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP):

# BIODIVERSITY

Report Reference Number: FE426/CEMP01

August 2024

**Futures Ecology Ltd**
Carrwood Park, Swillington Common Farm, Selby Rd, Leeds LS15 4LG

Company Number: 12125083

This report is the property of Futures Ecology Limited and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without the written consent of Futures Ecology Limited.

This report may not be relied upon by any other party without the express written agreement of Futures Ecology Limited. The use of this report by unauthorised third parties is at their own risk and Futures Ecology Limited accepts no duty of care to any such third party.

Futures Ecology Limited assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others. Any recommendation, opinion or finding stated in this report is based on conditions as they existed at the time that Futures Ecology Limited undertook the work. Nothing in this report constitutes legal opinion.

| REV | Issue Status | Author or Reviewer | Name & Qualifications | Position | Date |
|---|---|---|---|---|---|
| - | Draft 1 | Author | K. Haymes BSc (Hons) MCIEEM | Senior Ecologist | 15.07.2024 |
| | | Reviewer | J. Eales BSc | Managing Director | 29.07.2024 |
| | **Final** | Author | K. Haymes BSc (Hons) MCIEEM | Senior Ecologist | 28.08.2024 |

**CONTENTS**

1.0 INTRODUCTION ..... 1
Site Location and Context ..... 1
Planning Permission ..... 1
2.0 IMPORTANT ECOLOGICAL FEATURES & RISK ASSESSMENT ..... 2
3.0 BIODIVERISTY PROTECTION ZONES ..... 3
4.0 MITIGATION MEASURES ..... 3
Protection of Retained Habitats ..... 3
Pollution Prevention ..... 3
Dust Deposition ..... 4
Lighting ..... 5
Invasive Non-Native Species (INNS) ..... 5
Japanese knotweed (JK) ..... 5
Protected Species ..... 6
Water vole ..... 6
Badger ..... 7
Bats ..... 9
Nesting Birds ..... 9
5.0 LOCATION & TIMING OF SENSITIVE WORKS ..... 9
6.0 TIMETABLE OF ECOLOGICAL CONSTRAINT ..... 10
7.0 ROLES AND RESPONSIBILITIES ..... 10
Appointed Persons ..... 11
8.0 USE OF PROTECTIVE FENCES, EXCLUSION BARRIERS AND WARNING SIGNS ..... 11

**APPENDICES**

Appendix A: Toolbox Talk Information
Appendix B: INNS Identification Sheets

**FIGURES**

Figure 1: Biodiversity Protection Zones
Figure 2: Confidential: Badger Mitigation Plan

## 1.0 INTRODUCTION

1.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Crest Nicholson to detail the ecological mitigation and management measures, along with a programme for implementation during the construction phase, for Parcels 4 & 5, land to the north and south of Crossley Lane, Dalton, Huddersfield, HD5 0QP.

### SITE LOCATION AND CONTEXT

1.2 The Site is approximately 4.49 ha in extent, split into two parcels; one north of Crossley Lane (Parcel 4: ~1.40 ha) and one south of Crossley Lane (Parcel 5: ~3.09 ha) and is located on the edge of the eastern suburbs of Huddersfield. Habitats on site comprise largely of hardstanding, where former warehouses were demolished under a previous planning consent (REF: 2015/60/90430/W).

1.3 The parcels of land within the development area are of a low ecological value with limited potential for significant impacts to either protected species or valuable habitats on the site, with the exception of the habitats to the south of Parcel 5, associated with Ox Field Beck. Ox Field Beck, which is mapped under the Kirklees Wildlife Habitat Network (KWHN), runs through the south of Site and flows into adjacent land within the same ownership, where it converges with Lees Head Beck. Appropriate mitigation is required in order to prevent negative impacts to the function of the KWHN and the becks during construction of the Site.

1.4 The surrounding land is of a distinctly mixed use, with scrub and young woodland to the south, beyond which residential development is found. Small areas occupied by industrial land are found to the east and west, again with residential development and young woodland beyond. To the north, the site is bordered by very low-density housing, Cold Royd Wood and grazing pasture beyond this.

### PLANNING PERMISSION

1.5 The Site has planning permission for the erection of 122 residential dwellings and associated new access to Crossley Lane and Cold Royd Lane (Planning Reference: 2020/61/90805/W). Condition 6 attached to the planning permission relates to ecology and states;

*Prior to development commencing (including demolition, ground works, vegetation clearance), a Construction Environmental Management Plan for Biodiversity (CEMP: Biodiversity) shall be submitted to, and approved in writing by, the Local Planning Authority. The CEMP: Biodiversity shall include the following:*

*a) Risk assessment of potentially damaging construction activities that refers to the most up-to-date site-specific survey information and specifically to nesting birds, badgers and invasive plant species.*

*b) Identification of 'biodiversity protection zones' where appropriate.*

*c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).*

*d) The location and timings of sensitive works to avoid harm to biodiversity features.*

*e) The times during construction when specialist ecologists need to be present on site to oversee works, where appropriate.*

*f) Responsible persons and lines of communication.*

*g) Use of protective fences, exclusion barriers and warning signs, where appropriate.*

*The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the Local Planning Authority.*

## 2.0 IMPORTANT ECOLOGICAL FEATURES & RISK ASSESSMENT

2.1 Table 1 below considers the important ecological features within the Site that are sensitive to construction activities, as identified in the Ecological Appraisal & Bat Roost Potential Survey[1] and Badger Assessment & Report[2] and identifies the potential risks to them as a result of construction works.

2.2 A walkover survey of the land within the wider ownership was conducted by Futures Ecology Limited on 10th and 11th July 2024, which mapped the locations of Invasive Non-Native Species (INNS) along Lees Head Beck and Ox Field Beck. This information has also been used to identify the potential risks of construction works.

**Table 1: Assessment of Risk to Important Ecological Features**

| Important Ecological Feature | Risk Assessment |
|---|---|
| **Ox Field Beck** | Ox Field Beck runs through the southern extent of the site. This will form a wider green corridor within the ownership land, which will encompass Ox Field Beck, Lees Head Beck and associated habitats. Potential for indirect impacts to retained habitats from accidental physical damage, noise, dust and/or pollution. |
| **Lees Head Beck (Offsite)** | This occurs at its closest point ~26m south of the application site.<br>Potential for indirect impacts from noise, dust and/or pollution. Ox Field Beck flows into Leeds Head Beck. |
| **Kirklees Wildlife Habitat Network (KWHN)** | The onsite boundary habitats to the south, along Ox Field Beck, and to the west are mapped under the Kirklees Wildlife Habitat Network (KWHN). The habitats mapped as KWHN extend offsite to the south and west. Potential for indirect impacts to retained habitats from accidental physical damage, noise, dust and/or pollution. |
| **Invasive Non-Native Species (INNS)** | Japanese knotweed (JK) *Reynoutria japonica* is present to the south of Ox Field Beck, within the Site boundary. Further INNS have been identified within the wider ownership including Himalayan balsam (HB) *Impatiens glandulifera,* white butterbur *Petasites albus* and snowberry *Symphoricarpos albus,* which may be present within the application Site. These will require removal / management prior to construction commencing. Potential for breach of legislation in terms of JK and HB, which are listed under Schedule 9 of the Wildlife and Countryside Act 1981. |

[1] Ecological Appraisal & Bat Roost Potential Survey Parcel 4 & 5, Crossley Lane, Dalton, Brooks Ecological, Report reference: R-2089-01.1, January 2015

[2] Badger Assessment & Report, Land to North & South of Crossley Lane, Dalton, Brooks Ecological, Report reference: ER-5301-01-A, April 2021

| Important Ecological Feature | Risk Assessment |
|---|---|
| **Water vole** ***Arvicola amphibius*** | Ox Field Beck has the potential to support water vole. Works within 5m of the beck could result in the killing or injury of individuals, or destruction of burrows, which is a breach of legislation. |
| | |
| **Bats** | The direct lighting of boundary habitats, and retained habitats to the south along Ox Field Beck, could result in bats avoiding the habitats for commuting / foraging purposes during the construction phase. |
| **Birds** | Risk of disturbance, killing or injury of nesting birds or damage to nests during site clearance operations, which is a breach of legislation. |

## 3.0 BIODIVERISTY PROTECTION ZONES

3.1 Biodiversity Protection Zones are illustrated on Figure 1.

## 4.0 MITIGATION MEASURES

### PROTECTION OF RETAINED HABITATS

#### Pollution Prevention

4.1 Pre-mitigation, there is a risk for construction activities to contaminate retained or newly created habitats, within and adjacent to the site.

4.2 All fuel will therefore be stored in a double skinned tank or a tank in a suitable bunded area, designed to hold 110% of the tank's capacity, in compliance with the Control of Pollution (Oil Storage) (England) Regulations 2001. All connections shall be situated within the bund. All fuel and chemical stores and refuelling activities shall be situated as far as possible away, but a minimum of 30m, from any watercourses, namely Ox Field Beck and Lees Head Beck.

4.3 Re-fuelling activities will only be undertaken in designated areas, by suitably qualified persons. Toolbox talks will be communicated to site staff and contractors so that they are fully informed of refuelling procedures.

4.4 Pumps and generators used on the site will have integral drip trays where possible. All items of plant without an integral drip tray shall be stored over a portable drip tray. Drip trays shall be inspected and kept free of accumulated rainwater as necessary. Any oily water shall be disposed of at an appropriate licensed facility. Any arisings from drip trays

[3] Badger Assessment & Report, Land to North & South of Crossley Lane, Dalton, Brooks Ecological, Report reference: ER-5301-01-A, April 2021

etc. is to be disposed of as hazardous waste in accordance with Environment Agency guidance and current legislation.

4.5 All hazardous liquids e.g., oils, lubricants, chemicals and tins of paint are to be stored in a segregated area in a suitable locked COSHH container and in accordance with the products Safety Data Sheet. COSHH assessments will be available nearby for information in the event of a spillage.

4.6 A spill response kit will be available onsite and accessible to all to control pollution incidents. These spill kits will contain absorbent pads, absorbent granules and methods of disposal of materials and used kit. These kits will be located at appropriate points around the site which are at a higher risk of pollution (e.g., refuelling area and next to fuel tanks). Further spill kits and supplies will be located in the stores within the site, where replacements for used kits will be found. Spill kits will need to be regularly inspected and immediately replaced if used. Although withdrawn by the Environment Agency their advice document 'Pollution preventative Guidelines' (PPG6) still provides suitable guidance for such development schemes.

**Dust Deposition**

4.7 Disruption to habitats / populations within receiving range of dust could arise from construction traffic movement, handling of materials or other construction processes. Dust will be minimised by the following means:

- During dry spells the site is to be damped as necessary using a water bowser and surfaces kept in good order;
- Regular inspection of local highways and site boundaries to check for dust/dirt deposits shall be carried out. A road sweeper shall be employed to ensure site road and local highways are kept free of deposits; the frequency of visits shall be varied depending on the condition noted during the inspections. All road sweeper collections will be disposed of in accordance with current waste management legislation;
- All vehicles entering and exiting the site must remain on the designated areas to avoid the movement and transfer of site debris/mud;
- Vehicles carrying loose aggregate and workings should be sheeted at all times;
- Construction traffic shall be routed to avoid sensitive roads (i.e., residential areas, etc.);
- Speed limit around site of 10 mph;
- Stockpiles of soils and materials will be located as far as possible from sensitive properties, taking account of prevailing wind directions and seasonal variations in the prevailing wind; and
- Stockpiles have been designed to minimise surface area (subject to health and safety and visual constraints regarding slope gradients and visual intrusion) to reduce area of surfaces exposed to wind pick-up.

**Lighting**

4.8 Light spill from construction could disrupt the normal crepuscular or nocturnal patterns of protected species, such as bats and other wildlife.

4.9 During construction, any light used on site will be directed into the Site to avoid any light spill to retained habitats such as the southern habitats along Ox Field Beck. All external lighting outside of operational hours is to be used for safety and security reasons only.

4.10 No lighting should be directed onto the boundary habitats, namely those mapped under KWHN adjacent to the south and west of the Site.

4.11 Additional measures to minimise light spill during construction should be considered which are based on best practice guidance[4] include a combination of the following steps:

- Avoiding unnecessary lighting;
- The use of low-intensity lighting (sodium lamps or similar), where possible;
- The use of low level and / or hooded lamps to minimise light spill; and
- Minimising light spill with the use of directed lighting.

**INVASIVE NON-NATIVE SPECIES (INNS)**

4.12 Japanese knotweed (JK) is present to the south of Ox Field Beck. Further INNS have been identified within the wider ownership including Himalayan balsam (HB), white butterbur and snowberry, which may be present within the application Site.

4.13 An updated Site walkover to accurately identify and map INNS will be undertaken prior to commencement. Additional INNS identified within the Site boundary will be fenced off and will require removal / management prior to construction commencing.

4.14 A Method Statement for the management of JK is provided below.

4.15 Identification Sheets for JK, HB, white butterbur and snowberry are provided in Appendix A.

**Japanese knotweed (JK)**

4.16 This species is listed on Schedule 9 of Wildlife and Countryside Act 1981 (as amended) and therefore under Part 2 of Schedule 14 it is an offence to cause it to grow in the wild. Accidental spreading of this species during site clearance works would be a breach of legislation.

4.17 Under the Environmental Protection, (Duty of Care) Regs 1991 and Environmental Protection Act 1990 Sect 34, soil contaminated with these Schedule 9 plants is classed as 'controlled waste' and can only be disposed of at a registered landfill site.

4.18 An established clump of JK has an extensive system of underground stems (rhizomes), which can reach 2 metres deep and 7 metres from the edge of a stand, potentially spreading at a rate of several metres per year. The movement and use of soil

[4] Bat Conservation Trust and the Institute of Lighting Professionals in 2023, 'Bats and Artificial Lighting At Night' Guidance Note GN08/23

contaminated by fragments of rhizomes is the primary method of spread between sites, however, the plant is also able to spread by transfer of cut stem material.

4.19 The JK onsite is located south of Ox Field Beck, within the retained green corridor, consequently the most appropriate method of management / eradication would be through chemical treatment. The below points outline best working practices for chemical treatment as per the government website[5]:

- Spraying or injecting the stems, with an approved herbicide, by a competent person who holds a certificate of competence for herbicide use or works under direct supervision of a certificate holder;
- Carry out a Control of Substances Hazardous to Health (COSHH) assessment;
- Get permission from the Environment Agency (EA) due to the proximity of Ox Field Beck;
- Chemicals must be disposed of through a registered waste carrier to a permitted waste disposal facility, with the correct permit, if required; &
- Treatment will be ongoing as it takes at least 3 years to treat JK. Knotweed rhizomes can remain dormant in the soil for many years and will regrow if disturbed or if the soil is relocated.

**PROTECTED SPECIES**

**Water vole**

4.20 Water vole are fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) due to the protection afforded to their places of shelter and protection. They are afforded protection under Section 9 parts 4(a) and 4(b). This makes it an offence to:

- Intentionally or recklessly kill, injure or take these species;
- Possess or control live or dead species or derivatives;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- Intentionally or recklessly disturb these species whilst occupying a structure or place used for that purpose;
- Sell these species or offer or expose for sale or transport for sale; &
- Publish or cause to be published any advertisement which conveys the buying or selling of these species.

4.21 The scheme has sought to buffer Ox Field Beck by 5m. The scheme's surface water drainage will be directed to an attenuation basin, fitted with a hydro-break, to the north of Ox Field Beck. The existing outfall structure into the beck will be used, therefore, it is not anticipated that any works to the beck bank will be necessary.

[5] https://www.gov.uk/guidance/prevent-japanese-knotweed-from-spreading accessed 15.07.2024

4.22 If it becomes necessary to undertake any works (including vegetation removal, drainage works etc.) within close proximity (5m) of Ox Field Beck, then a precautionary approach will be undertaken which will be overseen by the Ecological Clerk of Works (ECoW). Prior to works commencing the ECoW will survey the impacted areas to ensure the absence of water vole and their burrows.

4.23 Should evidence that Ox Field Beck is used as a place of rest or shelter is observed and if impacts to these species or their places of rest or shelter is likely to occur, then works will immediately cease. It will then be necessary to obtain a Natural England licence to derogate from the legislation and implement any mitigation, as necessary.

**Bats**

4.33 All UK species of bat are listed on the Conservation of Habitats and Species Regulations 2017 (as amended) making it illegal to deliberately disturb any such animal or damage / destroy a breeding site or roosting place of any such animal. Bats are also afforded full legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is illegal to recklessly or intentionally kill, injure or take a species of bat or recklessly or intentionally damage or obstruct access to or destroy any place of shelter or protection or disturb any animal whilst they are occupying such a place of shelter or protection.

4.34 Although foraging habitat and commuting routes used by bats are not protected as such, impacts that could prevent bats from using a resource or commuting to or from a valued roosting site may be considered an indirect impact on a roost. Any significant disturbance effect would therefore need to be avoided or prevented.

4.35 Light spill from construction could disrupt the normal foraging and commuting behaviour of bats using the onsite and immediately offsite boundary habitats. For relevant mitigation, please refer to the Lighting section above.

**Nesting Birds**

4.36 All wild bird species are protected while nesting by the Wildlife and Countryside Act 1981 (as amended). This legislation protects wild birds and their eggs from intentional harm, and makes it illegal to intentionally take, damage, or destroy a wild bird nest while it is in use or being built.

4.37 Where removal of woody vegetation is required, during site clearance works it is recommended that this is undertaken outside of the nesting season (March – August inclusive) as all birds are protected whilst on the nest. If removal outside the nesting season is not feasible, all vegetation/structures to be removed should be checked by an experienced ecologist for the presence of active nests. The check and advice provided will be valid for a maximum of 48 hours during which period the trees and vegetation should be removed.

4.38 If nesting birds are identified during the initial check then a minimum of a 5m buffer/ exclusion zone will be applied around the nest site. It will be necessary to undertake follow-up site visits to check the status of the nests, (usually within two to three weeks of the initial visit). Dependant on findings and circumstances of vegetation removal it may be necessary to undertake multiple follow-up visits. This exclusion zone will be maintained until the nests have fledged. If nesting birds are found, then detailed advice would be provided to the Site Manager by the supervising ecologist.

## 5.0 LOCATION & TIMING OF SENSITIVE WORKS

5.1 See Figures 1 & 2 for locations of sensitive works and the Table below for timings.

## 6.0 TIMETABLE OF ECOLOGICAL CONSTRAINT

| Ecological Constraint | Period of Constraint | Compliance |
|---|---|---|
| **Invasive Non-Native Species (INNS)** | Prior to commencement | Pre commencement walkover and mapping by an ECoW. |
| **Water vole** | Prior to and during any works within 5m of Ox Field Beck. | If Ox Field Beck is to be impacted, a pre commencement survey by an ECoW.<br>Works within 5m of the bank top to be supervised by an ECoW. |
| **Nesting Birds** | March to August (inclusive). | Any clearance of woody vegetation undertaken within the nesting bird season should be subject to a nesting bird check undertaken by the ECoW no more than 48 hours prior to removal. |

## 7.0 ROLES AND RESPONSIBILITIES

7.1 All works at all stages will be overseen and are the responsibility of Crest Nicholson who will appoint a Site Manager. The site manager will:

- Adhere to prescriptions contained within the CEMP;
- Arrange site-wide monitoring as required during the development;
- Ensure environmental and waste requirements are included on requisitions and in subcontracts and orders;
- Ensure oil, including diesel is stored in properly bunded tanks / including use of drip trays for plant and equipment / refuelling;
- Oversee and maintain records of the agreed programme of habitat and species protection as described in this document;
- Monitor the site activities to ensure that all relevant environmental and ecological legal consents, licences and exemptions are in place in advance of relevant works commencing, and that the requirements are adhered to;
- Ensure contractors are given appropriate environmental awareness training through Toolbox Talks and / or general site induction materials;
- Monitor the environmental performance of contractors and provide direction as necessary;
- Contribute to communication on environmental matters with stakeholders and statutory bodies;
- Monitor implementation of any corrective action required;

- Maintain a record of this document, and any other relevant ecological reports and all environmental monitoring during the construction process, which should be made available for inspection by any relevant statutory bodies as required;
- Ensure that a suitably qualified ecologist undertakes any further on-site surveys or monitoring as required;
- Report any environmental incidents to the appointed suitably qualified ecologist and to the relevant statutory authorities; and
- Ensure that any required corrective ecological actions are taken in line with the relevant procedures.

7.2 The Site Manager will be responsible for compliance with regulations, planning conditions, environmental procedures, contractual agreements and obtaining legal consents.

7.3 In conjunction with having overarching responsibility for the ecological measures as detailed within this report the Site Manager will also ensure that all appropriate site protection measures are implemented to ensure no inadvertent effect upon ecological features. This includes the continued maintenance of any protective fencing during all on-site works.

**APPOINTED PERSONS**

| | |
|---|---|
| **Site Manager** | (To be confirmed prior to site setup)<br><br>…… |
| **Ecological Clerk of Works (ECoW)** | (To be confirmed prior to site setup)<br><br>……<br><br>Futures Ecology Ltd.<br>0113 3372185 |

## 8.0 USE OF PROTECTIVE FENCES, EXCLUSION BARRIERS AND WARNING SIGNS

8.1 The potential for impacts on retained habitats outside of the immediate working areas during construction activities will be minimised through the erection of protective fencing and creation of biodiversity protection zones (see Figure 1).

8.2 Ox Field Beck will be buffered from direct impacts and accidental pollution event / siltation through the erection of silt fencing to ensure there is no uncontrolled site run-off during the construction phase.

8.3 Any retained trees will be protected from damage and soil compaction during works by maintaining Root Protection Areas (RPAs) around trees in accordance with current best practice and guidelines (BS5837 Trees in Relation to Construction).

8.4 No temporary storage of materials, construction of haul routes, or site machinery will be sited within biodiversity protection zones or RPAs of trees and unnecessary or informal access to these areas by construction site personnel will be prevented.

## APPENDIX A: TOOLBOX TALK INFORMATION

FUTURESECOLOGY

# TOOLBOX TALK SIGNATURE SHEET

ToolBox Talk Name/Ref: ..... Date: .....

Site/Company/Location: .....

ToolBox Talk given by: .....

| NAME | SIGNATURE | TICK<br>*(To Confirm Understanding And Implementation Of Toolbox Talk)* |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

FUTURESECOLOGY

| NAME | SIGNATURE | TICK<br>*(To Confirm Understanding And Implementation Of Toolbox Talk)* |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

# ECOLOGY TOOLBOX TALK – NESTING BIRDS

## Nesting birds

### Legislation/Policy

Wild birds are protected by law under the Wildlife and Countryside Act (WCA)1981 (*as amended*). Under the WCA it is an offence to:

- **Kill or injure any wild bird**;
- Capture or keep (alive or dead) any wild bird;
- **Destroy or take the egg of any wild bird;**
- Sell or advertise for sale any wild bird or its eggs; or
- **Destroy, damage, interfere with, take or obstruct the use of the nest of any wild bird while it is in use or being built.**

There is also additional protection for rare breeding birds listed under Schedule 1 of the WCA. This makes it an offence to:

- Disturb any specially protected bird while it is building its nest;
- Disturb any specially protected bird while it is in or near a nest containing eggs or young; or
- Disturb the young of any of these birds before they are wholly independent.

### Works

- A check for breeding birds must be undertaken by the Ecological Clerk of Works (ECoW) if any works have potential to disturb nesting birds.
- Where possible works should be timed to avoid the breeding bird season (March – August).

- **Should a bird nest be identified the following procedure should be followed:**
  - Buffer the active nest from any works (at least 5m, to be agreed by the ECoW). This must be retained until the young have fledged.
  - If the nest is identified accidently stop activity being undertaken immediately (ensuring any nest is not removed/destroyed).
  - Immediately inform the site supervisor and ECoW.
  - ECoW to confirm presence of nest and consult regarding appropriate actions.
  - The activity should not resume until the ECoW has confirmed via written approval that works can proceed. Checks of the nest maybe required throughout the nesting period to ascertain the status of the nest.

# ECOLOGY TOOLBOX TALK – BADGER *Meles meles*

## Legislation/Policy



Badgers and their setts are legally protected from intentional cruelty from the results of lawful human activities. They are protected under the following acts:

- The protection of Badgers Act 1992
- The Wildlife and Countryside Act 1981, schedule 6 species making it illegal to intentionally kill or injure them.

## Identification

- Most badgers have the characteristic black and white striped face although very occasionally they can be creamy white (albino) or red/ginger (erythristic) in colour
- Fully grown adults can be up to 1m in length and weigh up to 14kg
- The sett entrance is usually D-shaped and around 8300mm wide and 200mm high, wider than either a fox or rabbit hole
- Freshly excavated material at the entrance, or piles of leaves, dry grass straw or bracken (bedding materials) all indicate that the sett may be active
- Badgers have a distinctive footprint – 5 claws and a broad pad



**Badger Sett**

Taken from: https://badgerwatcher.com/2010/02/21/how-to-recognise-a-badger-sett/



**Badger Prints**

Taken from: http://e3ecology.co.uk/services/badger/

## Works

- The contractor must ensure that any open excavations left overnight should have a shallow ramp placed in them, to allow badgers to escape should they fall in.

**Should a sett, badger or badger signs (hairs, latrines, prints) be identified unexpectedly during the works, the following emergency procedure should be followed:**

- Stop the activity being undertaken immediately (within 30m of the sett, badger or sign)
- Immediately inform the site supervisor and ECoW
- ECoW to confirm presence of species and/or sett and consult appropriate mitigation measures to implement and to decide whether a disturbance licence is required.
- The activity should not resume until written approval, detailing any appropriate mitigation has been given by the ECoW

FUTURESECOLOGY

# ECOLOGY TOOLBOX TALK – WATER VOLES

## Water voles *Arvicola amphibius*



### Legislation/Policy

Water voles are protected by British law under:

- The Wildlife and Countryside Act 1981, Schedule 5
- This makes it an offence to deliberately capture or kill, deliberately disturb an otter, intentionally or recklessly disturb an otter whilst occupying a structure or places used for shelter or protection, intentionally or recklessly obstruct access to any structure or place an otter uses for shelter or protection; and damage or destroy a breeding site or resting place of an otter.

### Identification

The water vole has chestnut-brown fur, a blunt, rounded nose, small ears, and a furry tail. It is much bigger than other vole species. The similar brown rat is larger, with grey-brown fur, a pointed nose, large ears that protrude from its fur, and a long, scaly tail.

Water voles live along rivers, streams and ditches, around ponds and lakes, and in marshes, reedbeds and areas of wet moorland. Their burrows (which are also protected) are dug into banks, often with a nibbled 'lawn' of grass around the entrance.



**Water vole burrow**

Taken from: https://www.mammal.org.uk/2021/06/water-vole-surveying-by-young-naturalist-izzy-fry/water-vole-burrow-by-izzy-fry/

### Works

- This species could be killed / injured during site clearance of habitats where burrows may be located, such as scrub or grassland adjacent to a watercourse / waterbody. Prior to any works within 10m of the watercourse / waterbody this habitat must be checked by an Ecological Clerk of Works (ECoW).

- This species could also become trapped within site excavations / trenches during works. Any excavations must be covered overnight, or a ramp / sloped end will be installed to enable any trapped animals to escape.

- All storage must be off ground for example the use of elevated stillages / pallets. No tipping of rubbish and a clean site policy to be used.
- Any netting brought onto site shall be stored off ground and in locked containers to avoid entanglement of animals.

- If any water vole or suspected water vole burrows are found in the working area, works must stop immediately.
- Immediately inform the site supervisor and ECoW
- ECoW to confirm presence of species and/or burrow and consult appropriate mitigation measures to implement and to decide whether a licence is required.
- The activity should not resume until written approval, detailing any appropriate mitigation has been given by the ECoW

## APPENDIX B: INNS IDENTIFICATION SHEETS

Produced by Olaf Booy, Max Wade and Vicky White of RPS

# Japanese Knotweed



## Species Description

**Scientific name:** *Fallopia japonica*
**AKA:** Japanese Bamboo, Pysen saethwr (Welsh), *Polygonum cuspidatum*, *Reynoutria japonica*
**Native to:** Japan, Taiwan, northern China
**Habitat:** Common in urban areas, particularly on waste land, railways, road sides and river banks

Tall herbaceous perennial with bamboo like stems. Often grows into dense thickets. Characteristic leaves and stems, persistence of last year's dead canes and distinctive rhizome (underground root-like stems) enables year round identification.

Introduced in the early 19th century as an ornamental plant. Now common and wide-spread across the UK. Spreads rapidly in the wild by natural means and as a result of spread by humans. Spread is solely by vegetative means, either fragments of rhizome or stem. Does not produce seed in the UK. Negative impacts include outcompeting native flora, contributing to river bank erosion and increasing the likelihood of flooding. Can also cause significant delays and cost to development as well as structural damage (it can grow through asphalt and some other surfaces).

Japanese Knotweed is listed under Schedule 9 to the Wildlife and Countryside Act 1981 with respect to England, Wales and Scotland. As such it is an offence to plant of other-wise cause Japanese knotweed to grow in the wild. Under the Environmental Protection Act 1990, Japanese Knotweed is classified as controlled waste.

For details of legislation go to www.nonnativespecies.org/legislation.

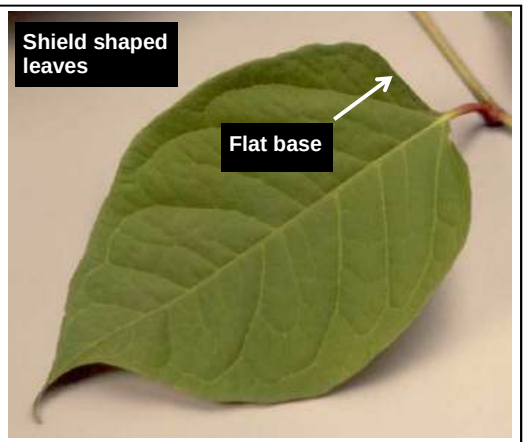
## Key ID Features









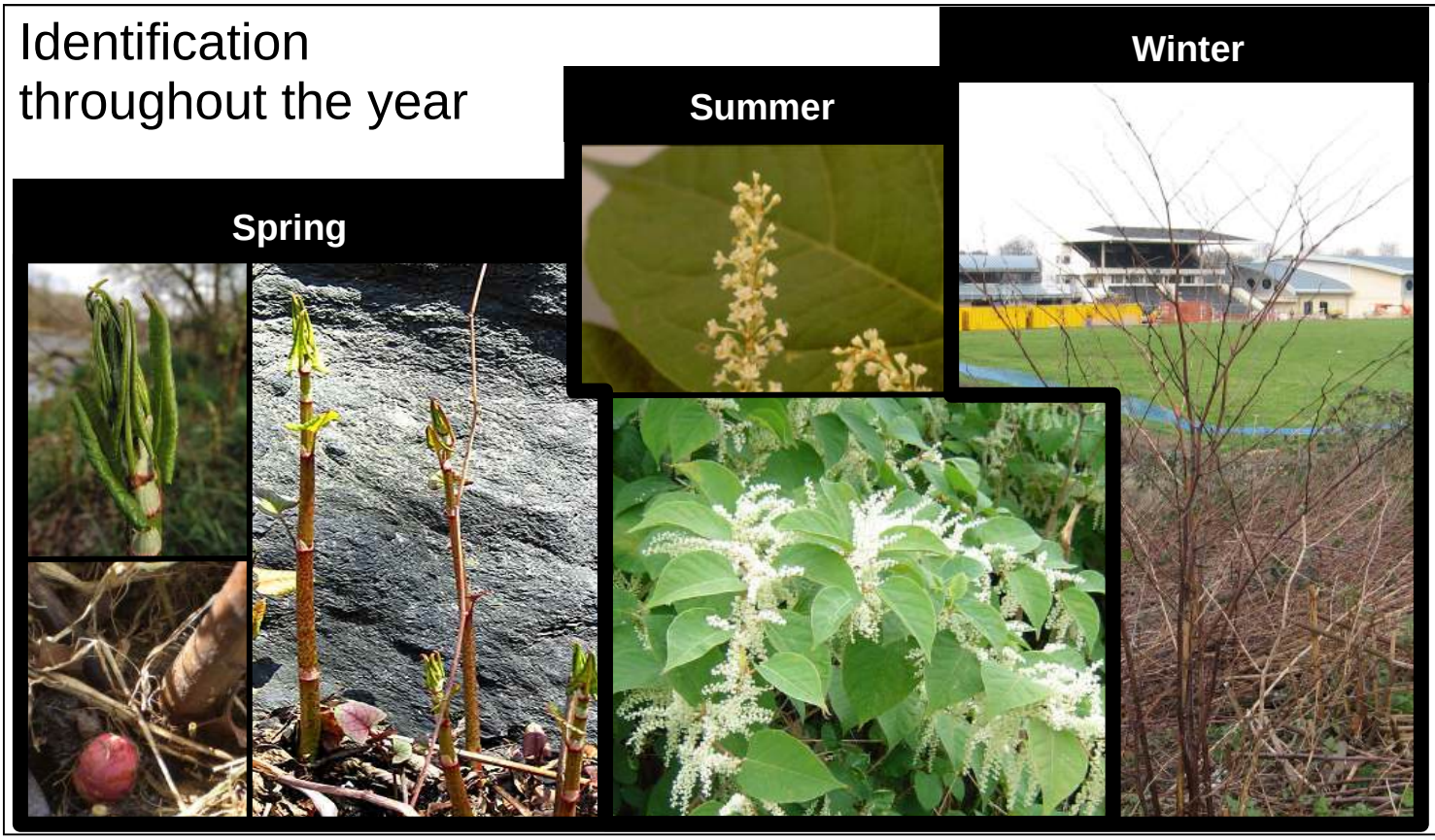







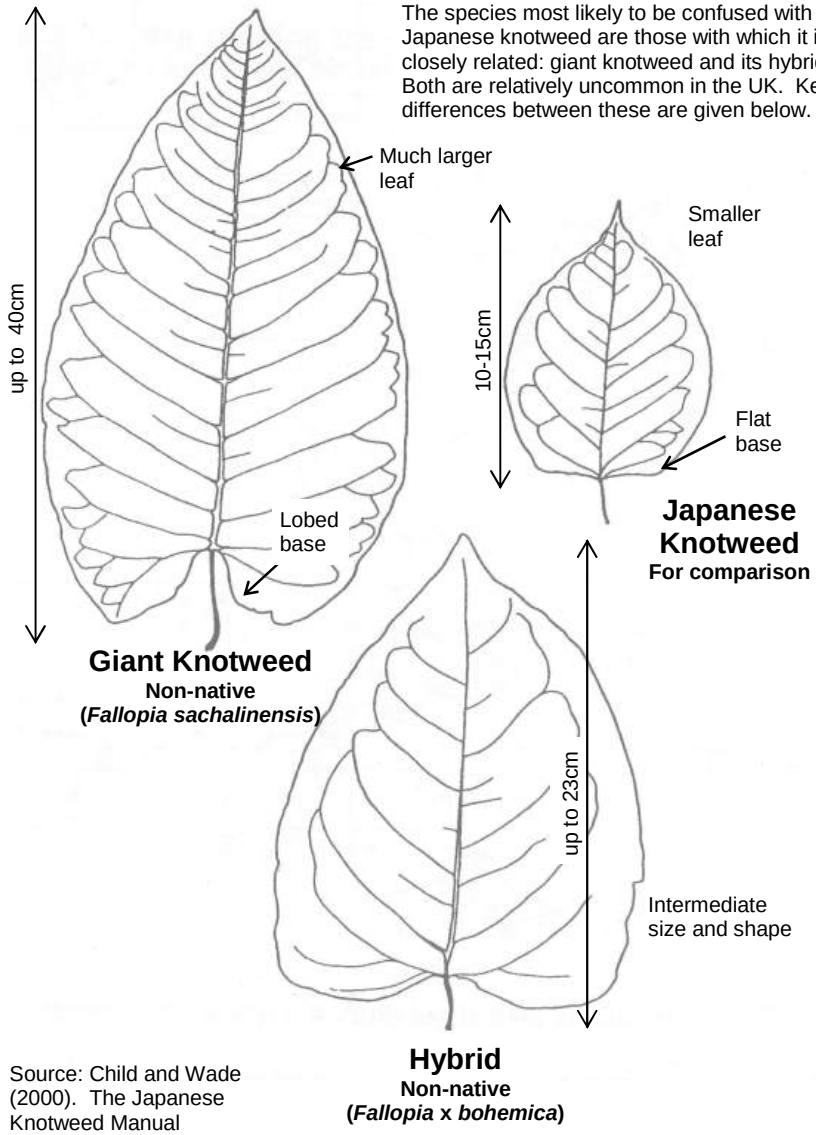


# Identification throughout the year




# Similar Species

The species most likely to be confused with Japanese knotweed are those with which it is closely related: giant knotweed and its hybrid. Both are relatively uncommon in the UK. Key differences between these are given below.




Source: Child and Wade (2000). The Japanese Knotweed Manual

# Distribution

Widespread and common across the UK. Notably extensive infestations are found in the south-west of England, south Wales and Greater London, however similarly extensive populations can also be found elsewhere.



Source: NBN Gateway. Check website for current distribution

References and further reading:

Blamey, M, Fitter, R and Fitter, A (2003) *"The Wild Flowers of Britain and Ireland. The Complete Guide to the British and Irish Flora."* A & C Black

Child, L E and Wade, P M (2000) "The Japanese Knotweed Manual". Packard

Environment Agency (2006) "*The Japanese Knotweed Code of Practice".* Environment Agency

Preston, C D, Pearman, D A and Dines, T A (editors) (2002) *"New Atlas of the British and Irish Flora".* Oxford University Press

Stace, C (1999) *"Field Flora of the British Isles".* Cambridge University Press

Photos from: Olaf Booy, Helen Parish, Max Wade, Vicky White

For more information visit **www.nonnativespecies.org**

Produced by Olaf Booy, Max Wade and Vicky White of RPS

# Himalayan Balsam

## Species Description

**Scientific name:** *Impatiens glandulifera*
**AKA:** Policeman's Helmet, Indian Balsam, Jac y Neidiwr (Welsh)
**Native to:** West and central Himalayas
**Habitat:** Found mostly on river banks and in damp woodland, can grow in other damp habitat

A tall, attractive, annual herb with explosive seed heads. Although easy to identify as a mature plant with its pink-purple flowers, fleshy stem and characteristic leaves, the seedlings and last year's dead stems of this annual are more difficult to spot.

Introduced as a garden plant in the early 19th century and first recorded in the wild in 1855. Often favoured by the general public for its aesthetic appeal and is still deliberately planted on occasion. Now widespread in the UK, especially along urban rivers. Spreads solely by seeds, which are small and easily carried by wind or water.

Out-competes native species in ecologically sensitive areas, particularly river banks. Where it grows in dense stands along river banks it can impede flow at times of high rainfall, increasing the likelihood of flooding. Die back of extensive stands over winter can leave river banks bare and exposed to erosion.

Himalayan balsam is listed under Schedule 9 to the Wildlife and Countryside Act 1981 with respect to England and Wales. As such, it is an offence to plant or otherwise allow this species to grow in the wild.

For details of legislation go to www.nonnativespecies.org/legislation.



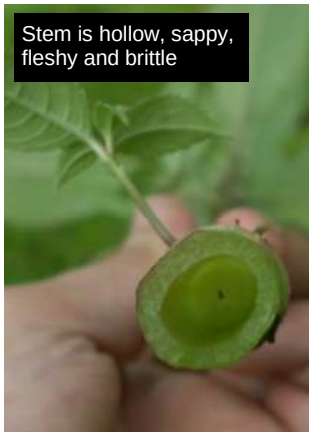

## Key ID Features







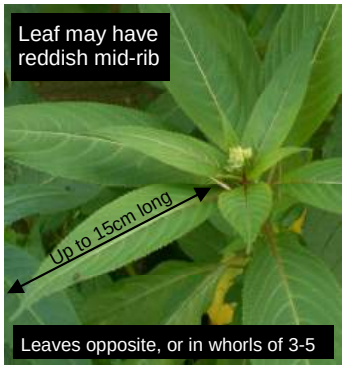

















# Identification throughout the year

Can be identified at most times of the year: March-June by its seedlings, stem and leaf shape, from July to September by its stem, leaf shape and flowers. More difficult to identify over winter (October to February), look for hay like remains and distinctive root structure.


**Hay like remains in winter**


**Root structure in winter**

# Similar Species

**Orange Balsam**
**Non-Native**
**(*Impatiens capensis*)**


Smaller leaves, with fewer serrations

Flowers slightly earlier, June to August

Orange balsam is much less aggressive than Himalayan balsam, forming smaller less dense stands

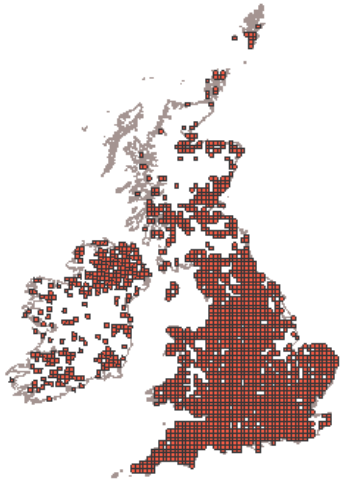
Flower is similar in shape but orange in colour



Smaller than Himalayan balsam, growing to a height of 1.2m

# Distribution

Widespread and common across the whole of the UK. Primarily on riverbanks and in other damp areas.



Source: NBN Gateway. Check website for current distribution


References and further reading:

Blamey, M, Fitter, R and Fitter, A (2003) *"The Wild Flowers of Britain and Ireland. The Complete Guide to the British and Irish Flora".* A & C Black

Preston, C D, Pearman, D A and Dines, T A (editors) (2002) *"New Atlas of the British and Irish Flora".* Oxford University Press

Stace, C (1999) *"Field Flora of the British Isles".* Cambridge University Press


Photos from: Olaf Booy, Mike Harris, Max Wade

# Snowberry

Scan for more information

## Species Description

**Scientific name**: *Symphoricarpos albus*
**Native to:** North America
**Habitat**: Hedgerows, riverbanks, estates and older or abandoned gardens.

Snowberry is a deciduous shrub that can grow to a height of 2m. It was introduced to UK in the 1800s and was widely used as dense cover for game birds.

*S. albus* has whippy, bright brown, shiny branches. Leaves usually 1.5 – 5cm long (can grow up to 7cm long), are rounded but occasionally lobed and are in an opposite arrangement. From spring to the summer, clusters of tiny bright pink, bell-like flowers 6mm long, appear at the ends of the branches. These are followed in late summer by waxy-looking, white berries which are up to 1.5cm in diameter.

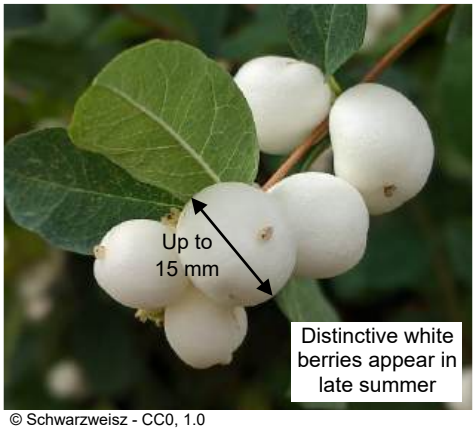
Snowberry spreads through suckering, in the right conditions the root system (rhizome) can grow rapidly and out-compete native plants. Once established *S. albus* can form dense thickets and suppress the growth of native plants and prevent access. Berries are poisonous to humans.

Due to its ability to grow rapidly, snowberry has been used as hedging, and to stabilise riverbanks and prevent erosion, which provided a corridor for further spread. As a result snowberry can

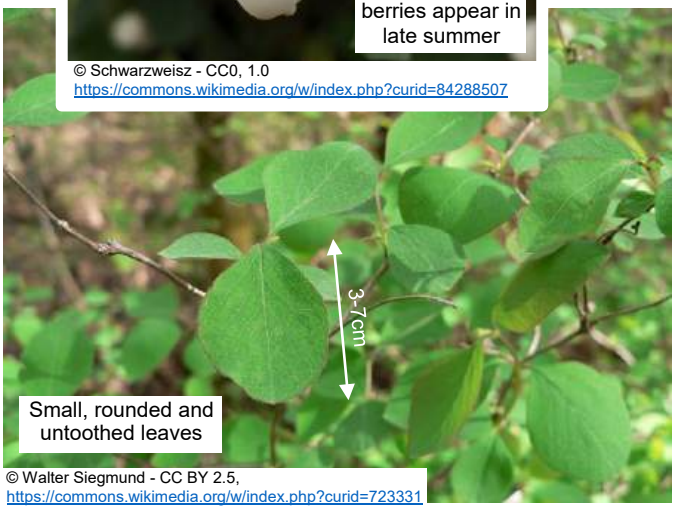


© H. Zell, CC BY-SA 3.0,
https://commons.wikimedia.org/w/index.php?curid=11141267

## Key ID Features

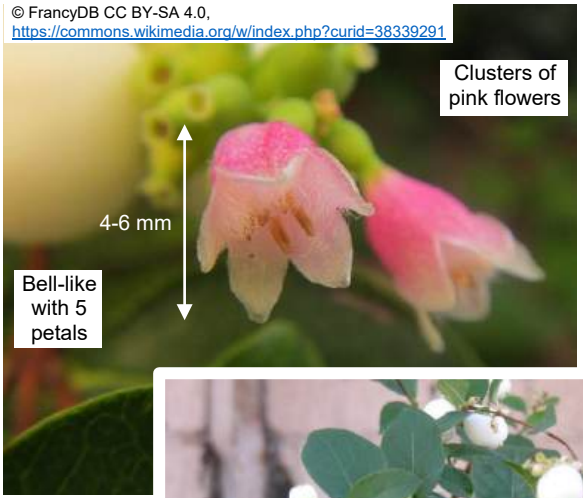



© Schwarzweisz - CC0, 1.0
https://commons.wikimedia.org/w/index.php?curid=84288507




© Walter Siegmund - CC BY 2.5,
https://commons.wikimedia.org/w/index.php?curid=723331

© FrancyDB CC BY-SA 4.0,
https://commons.wikimedia.org/w/index.php?curid=38339291






© Algirdas. Public Domain,
https://commons.wikimedia.org/w/index.php?curid=8112466

**Report any sightings via; CEDaR Online Recording - https://www2.habitas.org.uk/records/ISI, iRecord app or Invasive Species Northern Ireland website - http://invasivespeciesni.co.uk/report-sighting**

# Identification throughout the year

Snowberry is easily identifiable throughout the year, although it loses its leaves in the winter, the distinctive white berries remain or until they are eaten by birds. During the winter, thickets have a grey-brown colour and untidy appearance.



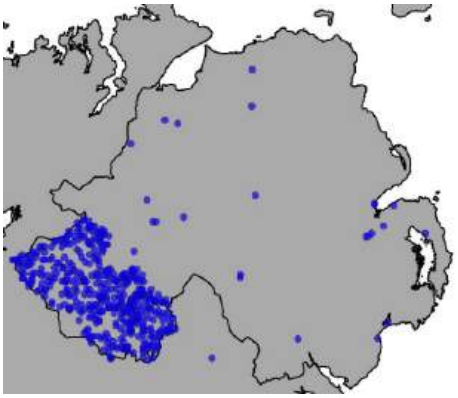
© AnRo0002 - CC0 1.0, https://commons.wikimedia.org/w/index.php?curid=65217546



© AnRo0002 - CC0, 1.0 https://commons.wikimedia.org/w/index.php?curid=45800791

# Distribution

This species is widespread across Northern Ireland. Records for this species are significantly under-reported.



Source: NBN atlas Northern Ireland - available https://northernireland-species.nbnatlas.org/species/NHMSYS0000464104
Check website for current distribution

# Similar Species

Due to its small round leaves and distinctive white berries, snowberry is unlikely to be easily confused with any other plant commonly found in similar habitats in Northern Ireland.

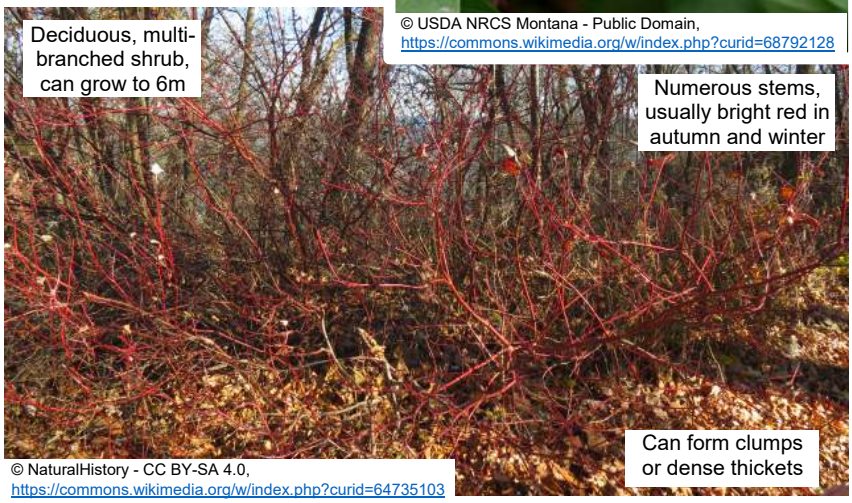
**Red-osier dogwood**
**Invasive non-native**
*(Cornus sericea)*




© Superior National Forest - CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=29788590




© USDA NRCS Montana - Public Domain, https://commons.wikimedia.org/w/index.php?curid=68792128




© NaturalHistory - CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=64735103

**Coralberry**
**Invasive non-native**
*(Symphoricarpos orbiculatus)*




© jasgriffin - CC BY-NC 4.0, https://www.inaturalist.org/photos/61084010




© Susie Dozzler - CC BY-NC 4.0, https://www.inaturalist.org/photos/61610830

**References and further reading:**

Booy O., Wade M. and Roy H. 2015. Field Guide to Invasive Plants and Animals in Britain. Bloomsbury. London.

*Symphoricarpos albus* (L.) S.F.Blake in GBIF Secretariat (2019). GBIF Backbone Taxonomy. Checklist dataset https://doi.org/10.15468/39omei accessed via GBIF.org

*__Sustainability__ at the heart of a living, working, active landscape valued by everyone.*

NIEA Northern Ireland Environment Agency www.daera-ni.gov.uk

An Agency within the Department of Agriculture, Environment and Rural Affairs www.daera-ni.gov.uk

# White butterbur



http://www.nonnativespecies.org/factsheet/factsheet.cfm?speciesId=2606

White butterbur *(Petasites albus)* is identified by the spiked white flower heads which appear early in the year (February to May), and by the large rounded leaves (up to 30cm across) which grow later in the year and form low dense carpets of leaves that look a bit like rhubarb leaves. It has a rhizome root, so spreads readily in damp ground along rivers and road verges. It can regenerate from fragments of rhizome, which can be carried along river corridors by the water.

White butterbur is similar to the native Common butterbur (*Petasites hybridus*) but this has mauve to purplish flowers rather than white ones.

## Control

The rhizomes of the plant are tough and difficult to eradicate once established. Due to the risk of fragments of rhizome regenerating mechanical control is not recommended, and chemical control is the preferred method. Scotland's Invasive Species Initiative have done some work on the most effective means of control which is ongoing but to date has concluded the following:-

Spraying is best conducted with glyphosate at a concentration of 188ml Roundup Pro Vantage 480/10litres applied to the foliage using a back-pack sprayer.

Hand digging plants can be effective but is very time consuming and unless the rhizomes are removed the plant will regrow.

Optimum timing of control is June onwards when the plant is grown and any herbicide applied is drawn back into the rhizomes where it is most effective.

Follow up – follow up herbicide treatment may be required to deal with any further growth the following year. Control of white butterbur can leave large areas of bare ground which may need planting or seeding with native species to prevent erosion or re-colonisation with butterbur.

## Further information

https://www.invasivespecies.scot/assessing-successful-control-removal-White-Butterbur

The European Agricultural Fund for Rural Development: **Europe investing in rural areas**

The North and South Aberdeenshire LAGs are being part-financed by the Scottish Government and the European Community LEADER 2014-2020 programme




FUTURESECOLOGY
Carrwood Park, Swillington Common Farm, Selby Road, Leeds, LS15 4LG
Telephone: 01133 372185

Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook, Mansfield, Derbyshire, NG20 8RX
Telephone: 01623 749709

## Key

- Site Boundary Parcels 4 & 5
- Kirklees Wildlife Habitat Network (KWHN)
- Watercourses
- Biodiversity Protection Zones
- 5m Buffer of Ox Field Beck

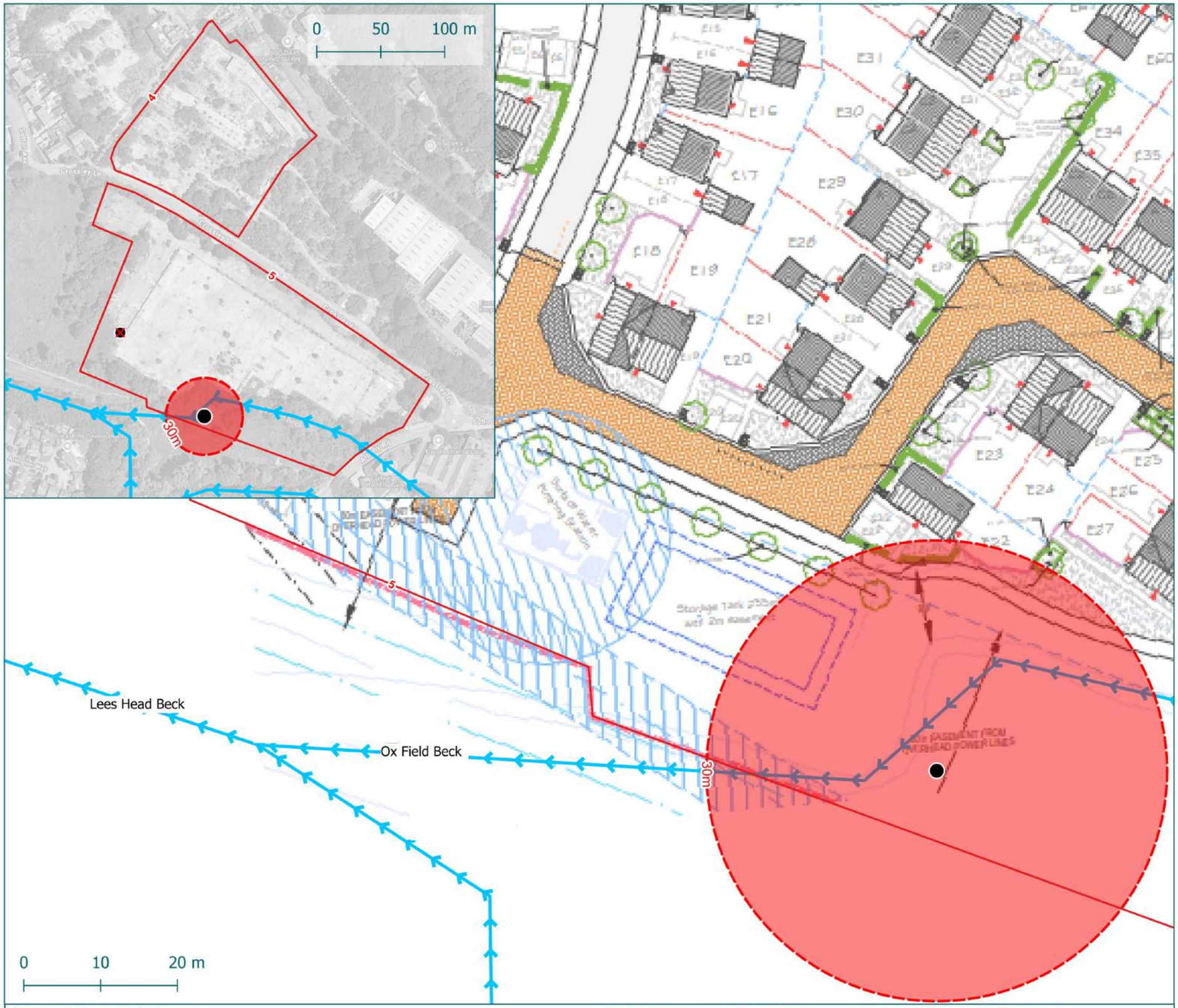
Invasive Non-Native Species (INNS)

- Japanese knotweed
- Himalayan balsam
- White butterbur
- Snowberry

| | | | | | |
|---|---|---|---|---|---|
| Client: | Crest Nicholson | Plan Reference: | FE426_01 | Author: | KEH |
| Project: | Crossley Lane, Dalton; Parcels 4 & 5 | Project Reference: | FE426 | Date: | 15/7/2024 |
| Title: | Figure 1 -Biodiversity Protection Zones | Report Reference: | FE426/CEMP01 | Scale: | NTS @ A3 |

C:\Users\kate.haymes\OneDrive - Futures Ecology Ltd\Projects\FE426 Crossley Lane, Dalton\QGIS\1_Plans\FE426_Project Plan.qgs

Copyright © Futures Ecology
No dimensions are to be scaled from this drawing. All dimensions must be checked on site. Any measurements are for indicative pusposes.
This drawing may contain: © OpenStreetMap contributor or Map data © 2019 Google




FUTURESECOLOGY
Carrwood Park, Swillington Common Farm, Selby Road, Leeds, LS15 4LG
Telephone: 01133 372185

Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook, Mansfield, Derbyshire, NG20 8RX
Telephone: 01623 749709

## Key

- Site Boundary Parcels 4 & 5
- Disused Sett identified in 2021
- Potentially Active Sett identified in 2024
- 30m sett buffer
- Watercourse

**PLAN CONTAINS SENSITIVE INFORMATION AND SHOULD BE TREATED AS CONFIDENTIAL AND ONLY VIEWED BY BONA FIDE ORGANISATIONS AND INDIVIDUALS.**

| | | | | | |
|---|---|---|---|---|---|
| Client: | Crest Nicholson | Plan Reference: | FE426_02 | Author: | KEH |
| Project: | Crossley Lane, Dalton; Parcels 4 & 5 | Project Reference: | FE426 | Date: | 28/8/2024 |
| Title: | Figure 2 - Confidential: Badger Mitigation Plan | Report Reference: | FE426/CEMP01 | Scale: | 1:500 |

C:\Users\kate.haymes\OneDrive - Futures Ecology Ltd\Projects\FE426 Crossley Lane, Dalton\QGIS\1_Plans\FE426_Project Plan.qgs

Copyright © Futures Ecology
No dimensions are to be scaled from this drawing. All dimensions must be checked on site. Any measurements are for indicative pusposes.
This drawing may contain: © OpenStreetMap contributor or Map data © 2019 Google