WYG Planning & Environment

part of the WYG group

Turner & Townsend

Barnsley College – Honeywell Site – Construction Centre

Ecology: Extended Phase 1 Habitat Survey

January 2014

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Executive Summary

Site Description and Scope of Works		
The study site comprises a small area within the Barnsley College, Honeywell Campus site which is located within the Honeywell area of Barnsley (central OS Grid Reference: SE344 070) and is approximately 0.5 ha in size. The study site primarily comprises the following habitat types: bare ground, poor-semi improved grassland and a line of trees. The purpose of the Extended Phase 1 Habitat survey was to identify any potential ecological constraints to the proposed development of the area to accommodate a new building and associated car parking.		
Potential Constraints	**Yes**	**No**
Bats		
Has the site been assessed for bats?	✓	
Are there any structures or trees on site which have the potential to support roosting bats? (see section 4.2.3)		✓
Breeding Birds including Barn Owls		
Has the site been assessed for breeding birds including barn owls?	✓	
Will areas of hedgerow, scrub, woodland, trees or other features likely to be used by nesting birds be affected by the proposal? (see section 4.2.5)	✓	
Badgers		
Has the site been assessed for badgers?	✓	
Is there any evidence of badgers on or near the application site including setts, foraging or commuting? (see section 4.2.4)		✓
Great crested newts		
Has the site been assessed for great crested newts?	✓	
Is there suitable habitat for great crested newts on, or close to the application site? (see section 4.2.1)		✓
Reptiles		
Has the site been assessed for reptiles?	✓	
Is there suitable habitat on the site for reptiles? (see section 4.2.2)		✓
Other features of nature conservation interest		
Does the application site support Habitats of Principal Importance or Local Biodiversity Action Plan Priority Habitats?		✓
Does the application site support Species of Principal Importance or Local Biodiversity Action Plan Species?		✓
Have details of biodiversity enhancements been included with the application?	Yes	
Recommendations	**Yes**	**No**
Are further surveys recommended to inform the ecological impact assessment?		✓
Is mitigation (including avoidance / compensation) and enhancement recommended?	✓	
• It is recommended that the associated landscaping scheme includes the provision of native tree and shrub species of local provenance. • It is recommended that the remaining vegetation clearance is carried out outside of the breeding bird season (March to September inclusive).		

1.0 Introduction

1.1 Background

WYG was commissioned by Turner & Townsend in December 2013 to complete an Extended Phase 1 Habitat survey of an area of land to the southern end of the Honeywell Campus of Barnsley College site (hereafter referred to as 'The Site').

1.2 Site Location and General Description

The site is situated in the Honeywell, north Barnsley (central OS Grid Reference: SE 344 070) and is approximately 0.5 ha in size. The site lies to the south western extent of the Honeywell Campus of Barnsley College which is bordered by Honeywell Lane to the north, by railway lines to the south and east and by residential housing to the west.

The proposed development area is situated to the southern end of the campus and is directly bordered by hardstanding (carparks) and buildings to the north, south and eastern sides and by the railway line to the west. The site primarily comprises the following habitat types: bare ground; poor semi-improved grassland; and a tree line. The extent of the study area is shown on the Phase 1 Habitat Map (Appendix A, Figure 1).

1.3 Development Proposals

The proposed development for the site comprises the construction of a new building referred to as the 'Construction Centre' and associated car parking.

Whilst the proposed layout will result in the loss of virtually all remaining habitats although some trees may be retained along the western boundary adjacent to the railway.

1.4 Survey and Reporting Objectives

The ecological investigations undertaken by WYG included the following:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest, and records of protected/notable species within the site and its environs;
- An Extended Phase 1 Habitat survey involving a walkover of the site to record habitat types and dominant vegetation, including any invasive species, and a reconnaissance survey for evidence of protected fauna or habitats capable of supporting such species;

- An assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation and enhancement where appropriate.

2.0 Desk Study

2.1 Methodology

Information was obtained regarding the presence of nature conservation designations and protected and notable habitats and species within approximately 2 km of the study site boundary from South Yorkshire Biological Records Centre (SYBRC). In addition, a search for designations within approximately 2 km of the study site boundary was made on Natural England's interactive web-based MAGIC (Multi Agency Geographic Information for the Countryside) database.

This data search covers:

- Statutory designated sites for nature conservation, namely Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites, Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), and Local Nature Reserves (LNRs);
- Non-statutory designated sites for nature conservation, namely Local Wildlife Sites (LWS);
- Legally protected species; and,
- Notable species, such as those listed as Habitats or Species of Principal Importance in England (Natural Environment and Rural Communities (NERC) Act 2006); or listed as priority habitats or species within the UK Biodiversity Action Plan (UK BAP) or within the Local 'Barnsley Biodiversity Action Plan' (2002) LBAP.

The data search does not cover:

- Tree Preservation Orders (TPOs); or,
- Conservation areas designated for their special architectural and historic interest.

2.2 Data Search Results

Statutory Sites

The Dearne Valley Park Local Nature Reserve (LNR) lies approximately 900m to the east of the study site at its closest point. This site is designated for its' acidic oak woodland and mosaic of wetland habitats.

Non-statutory Sites

At the time of writing the Local Records Centre have not yet returned their records.

Protected and Notable Species

Invertebrates (includes White-clawed Crayfish)

At the time of writing the Local Records Centre have not yet returned their records.

Great Crested Newts

At the time of writing the Local Records Centre have not yet returned their records.

Reptiles

At the time of writing the Local Records Centre have not yet returned their records.

Birds

At the time of writing the Local Records Centre have not yet returned their records.

Bats

At the time of writing the Local Records Centre have not yet returned their records.

Badgers

At the time of writing the Local Records Centre have not yet returned their records.

Otter

At the time of writing the Local Records Centre have not yet returned their records.

Water Voles

At the time of writing the Local Records Centre have not yet returned their records.

3.0 Survey Methodology

An Extended Phase 1 Habitat survey of the study site was conducted on 10th December 2013. All areas of the site were investigated, including those parts that are not expected to be affected directly by the works but may be indirectly impacted upon.

3.1 Habitats

The vegetation and habitat types within the site were noted during the walkover survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (Joint Nature Conservation Committee, 2010). Dominant plant species were recorded for each habitat present.

3.2 Protected and Notable Species

The site was inspected for evidence of and its potential to support protected or notable species, especially those listed under the *Conservation of Habitats and Species (Amendment) Regulations 2012,* the *Wildlife & Countryside Act 1981* (as amended), including those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006* and *Countryside & Rights of Way (CRoW) Act 2000*, and listed on the UK and local Biodiversity Action Plans.

The following species were considered:

Great Crested Newts

The site was appraised for its suitability to support great crested newts (GCN). The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Joint Nature Conservation Committee, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, Beckett & Foster, 2001).

Reptiles

The site was appraised for its suitability to support reptiles. The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Joint Nature Conservation Committee, 2003).

Bats

The trees within the site boundary were appraised by an experienced ecologist from WYG for their suitability to support breeding, resting and hibernating bats using survey methods based on those outlined in the Bat Conservation Trust's *Bat Surveys: Good Practice Guidelines* (2012) and English Nature's *Bat Mitigation Guidelines* (2004).

Bat Conservation Trust's *Bat Surveys: Good Practice Guidelines* (2012) use the following system to categorise trees:

- Known or confirmed roost;
- Category 1*: Trees with multiple, highly suitable features capable of supporting larger roosts;
- Category 1: Trees with definite potential, supporting fewer suitable features that category 1* trees of with potential for use by single bats;
- Category 2: Trees with no obvious potential, although the trees is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some feature which may have limited potential to support bats; or
- Category 3: Trees with no potential to support bats.

Badgers

The site was surveyed for evidence of badger setts or other badger activity such as paths, latrines or signs of foraging. Methodologies used and any setts recorded were classified according to published criteria (Harris, Cresswell & Jefferies, 1989). A 30m buffer zone around the expected zone of influence was surveyed where accessible as recommended in English Nature's *Badgers and Development* (2002).

Other Species

The site was also appraised for its suitability to support other protected or notable fauna including mammals, birds and invertebrates in accordance with the Institute for Ecology and Environmental Management's *Guidelines for Preliminary Ecological Appraisal* (IEEM 2012). Evidence of any current or historical presence of such species was recorded.

3.3 Invasive Species

The site was searched for evidence of invasive plant species, such as Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera*, giant hogweed *Heracleum mantegazzianum*, horizontal cotoneaster *Cotoneaster horizontalis* and rhododendron *Rhododendron ponticum* (see Appendix B Table B2 for full list).

3.4 Limitations

The comprehensiveness of any ecological assessment will be limited by the season in which surveys are undertaken. The optimum season for undertaking Phase 1 Habitat Surveys is April – September (inclusive). However, whilst this survey was carried out in December, the site is predominantly bare ground and contained few habitats and/or vegetative species, as such the timing of the survey is not considered to represent a significant limitation.

To determine likely presence or absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the *potential* of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to the *National Planning Policy Framework* (NPPF, 2012), especially those given protection under UK or European wildlife legislation.

The details of this report will remain valid for a period of two years. Beyond this period, if works have not yet been undertaken, it is recommended that a new review of the ecological conditions is undertaken.

4.0 Survey Results

An Extended Phase 1 Habitat plan showing the location of key ecological features are presented in Appendix A, Figure 1.

4.1 Habitats

Poor semi improved grassland

A thin strip of poor semi-improved grassland is present along the eastern edge of the site, although it is evident that the majority of the site has recently been cleared of vegetation and that much of the area also supported this grassland habitat. The species present in the remaining grassland area comprise common bent (*Agrostris capillaries*), cocksfoot (*Dactylis glomerata*), red fescue (*Festuca rubra*) and rough meadow grass (*Poa trivialis*). Other species recorded include creeping buttercup (*Ranunculus repens*), ribwort plantain (*Plantago lanceolata*), a dandelion species (*Taraxacum* sp), cow parsley (*Anthriscus sylvestris*), common vetch (*Vicia sativa*), teasel (*Dipsacus fullonum*), rosebay willowherb (*Chamerion angustifolium*), black medick (*Medicago lupulina*), spear thistle (*Cirsium vulgare*), creeping thistle (*Cirsium arvense*), pineapple weed (*Matricaria discoidea*), butter bur (*Petasites hybridus*) and fat hen (*Chenopodium album*).

Trees

A narrow strip of broadleaved woodland planted as a line of trees to screen the railway is present along the western boundary of the site. The main species present comprise a willow species (*Salix* sp), silver birch (*Betula pendula*), sycamore (*Acer pseudoplanatus*) and ash (*Fraxinus excelsior*). The understory has scattered shrubs such as hawthorn (*Craetagus monogyna*) and elder (*Sambucas nigra*) but predominantly comprise bramble species (*Rubus fruticosa* agg.) and nettle (*Urtica dioica*) with male fern (*Dryopteris filis-mas*) and ivy (*Hedera helix*) also present.

Tall Ruderal

The southern end of the site comprises tall ruderal habitats which predominantly comprise nettles, bramble and dock species (*Rumex* sp).

Bare Ground

A significant proportion of the site comprises bare ground (exposed mud) which is indicative of recent vegetation clearance. No vegetative species were recorded within this area.

4.2 Protected and Notable Species

Invertebrates

The site is predominantly bare ground and the remaining habitats do not offer particular botanical interest it is therefore considered that the invertebrates present on site would not constitute an assemblage of interest or nature conservation significance.

Breeding Birds

The trees on western side of the site have the potential to offer suitable nesting habitat for common birds during the breeding season and roosting and feeding habitat for the same range of bird species during the remainder of the year.

Due to the size of the site and presence of locally common habitats present in the wider area, it is not considered that the site would support significant populations of breeding birds, or rare or notable species which would require further species specific surveys.

Great Crested Newts

No ponds were recorded either on the site or within 500m on accessible land, however, it is noted that several of the residential properties in the surrounding area are likely to have garden ponds.

There are few terrestrial habitats on the site and those that remain do not comprise a large area, furthermore, the wider site is surrounded by railways and roads on all sides which are considered to act as significant barriers to dispersal for great crested newts.

Reptiles

Although the small strip of poor semi-improved grassland habitat is considered to offer some value for reptiles there is no habitat connectivity and it is considered unlikley that reptiles would be present wihtin such a small area of habitat.

Bats

There are no buildings on the site and the few trees which are present along the western boundary are considered to be too small to offer suitable roosting features such as cracks, crevices or holes which could be used by bats. As such all trees have been assessed as being Category 3 – Negligible potential for roosting bats.

Of the habitats on site only the tree line is considered to offer any potential for foraging and commuting bats.

Badgers

No badger setts or evidence of badger activity was identified within the site or within 30m of the site boundary where access permitted inspection. Furthermore, given the small area of habitats present on the site and a lack of connectivity to the wider area, it is considered unlikely to be suitable for badgers.

Water vole

No evidence of water vole activity was recorded during the survey and no habitats are present on site which could potentially support water vole.

Otter

No evidence of otter activity was recorded during the survey and no habitats are present on site which could potentially support otter.

Other Species

No signs of any other protected species were recorded during surveying.

4.3 Invasive Species

No invasive species were recorded within the study site during the survey.

5.0 Ecological Impacts and Recommendations

5.1 Habitats

The vast majority of the site comprises of bare ground, although trees, poor semi-improved grassland and tall ruderal are also present around the peripheries.

However, whilst these areas will be lost to facilitate the construction of the new building and infrastructure none of these habitats are considered to be of particular ecological value as they are commonly occurring habitats and only comprise a small area. As such the loss of these habitats is not considered to represent an ecological constraint, as such no further works or recommendations in regards to habitats are provided.

Enhancements

Where possible it is recommended that trees along the western boundary are retained and that any landscaping scheme associated with the development should seek to include the provision of native tree and shrub species of local provenance within its final layout.

5.2 Protected and Notable Species

Only those species which are likely to be present on the site are considered further.

Breeding Birds

All breeding wild birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) against intentional disturbance, damage and destruction during the nesting season (generally considered to be March to September inclusive although some species are known to breed throughout the year).

Generally there are few habitats on the site which can be impacted by the works, however, some of the trees along the western boundary are likely to be removed. As such it is recommended that works should be timed to occur outside the nesting season (March to September inclusive). If this is not possible, each area of suitable nesting habitat to be cleared should be searched for nesting birds prior to clearance by a suitably qualified ecologist.

If an active nest is found, the feature containing the nest and its immediate surroundings would need to be left undisturbed until nesting is complete and the birds have fledged. This could result in delays to work

being undertaken. Similarly, site investigation operations would also need to take account of the presence of nesting birds during the breeding season and avoid damage or destruction of habitats containing nests.

Bats

All bats and their roosts receive full protection both under the Conservation Conservation of Habitats and Species (Amendment) Regulations 2012 and the Wildlife and Countryside Act 1981 (as amended). The provisions of NERC Act 2006 require local authorities to have due regard to protected species when determining planning applications; this applies to bat species.

No buildings were present on the site and those trees which are present are not considered to offer any potential for roosting bats. As such roosting bats are not considered to represent an ecological constraint to the proposed works.

The tree line habitats are considered likely to be used by foraging and commuting bats; however, whilst these will be affected by the proposals, the loss of this small habitat area is not considered likely to have a significant detrimental impact on foraging/commuting bats as the wider landscape supports similar or better habitat types. As such the loss of this habitat is not considered to pose an ecological constraint to the proposed development

6.0 Summary of Recommendations

- To ensure legal compliance, it is recommended vegetation clearance of the trees to the western side of the site is avoided during the bird nesting season (March–September inclusive) or, if necessary, preceded by a search for nesting birds by a suitably experienced ecologist. If birds are found to be nesting in any vegetation, then work on or near these areas will not be able to proceed until all of the young birds have fledged.
- It is also recommended that any planting of trees and shrubs associated with the landscaping scheme includes native species of local provenance.

6.0 References

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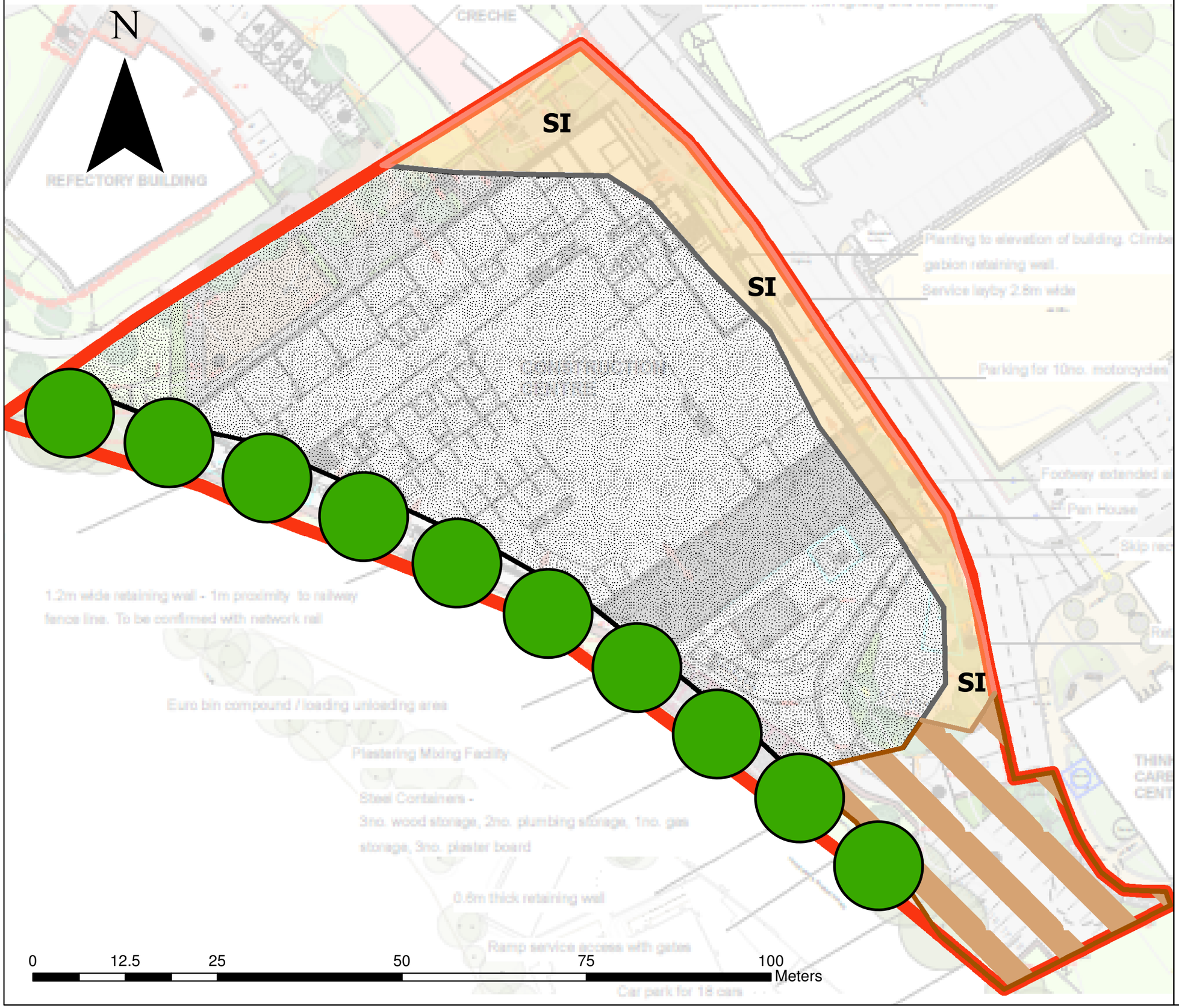
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Appendix A - Figures



Legend

- Survey Area Boundary
- Poor Semi-improved Grassland
- Bare Ground
- Tall Ruderal
- Line of Trees

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Project

Construction Centre - Honeywell Campus - Barnsley College

Drawing Title:

Phase 1 Habitat Survey Plan

Scale at A3:	Drawn by: Date:	Checked By: Date:	Approved By: Date:
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Base map provided by Turner & Tonwsend

Appendix B – Biodiversity and Environmental Legislation, Conventions & Threatened Lists

Introduction

The UK has ratified a number of Conventions and implemented legislation pertaining to the protection of biodiversity and habtiats, either independently or as member state of the European Union. These are defined and summarised below.

Lists of theatened, endagered and extinct species are also provided, together with a summary explanation of each.

Bern Convention (1982)

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the of the Convention, and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countires to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directiv*e (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

Biodiversity Action Plan (BAP)

The UK *Biodiversity Action Plan* (UKBAP – UK Steering Group, 1995; UK Biodiversity Group, 1998 - 2000) lists and prioritises habitats and species and sets national targets to be achieved. The intent of the UKBAP, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole.

The UKBAP has recently undergone a review (Biodiversity Reporting and Information Group, June 2007) resulting in the identification of 391 'Priority' Species Action Plans (SAPs), 45 'Priority' Habitat Action Plans and 162 Local Biodiversity Action Plans.

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Birds Directive (BD)

The *EC Directive on the Conservation of Wild Birds* (791409/EEC) or '*Birds Directive*' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Birds of Conservation Concern (BoCC)

This is a review of the status of all birds occuring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2009 (Eaton *et al,* 2009) and identified 52 red list species, 126 amber species, and 68 green species. The criteria are complex, but generally:

- Red list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of more than 50% in the last 25 years.
- Amber list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localasied in 10 sites or fewer and those whose 20% of the European population is found in the UK.
- Green list species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or '*Bonn Convention*' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the *Wildlfie & Countryside Act 1981* (as amended), *Widlife (Northern Ireland) Order 1985*, *Nature Conservation and Amenity Lands (Northern Ireland) Order 1985* and the *Countryside and Rights of Way Act 2000* (CRoW).

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatended Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Conern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the catgories is complex, and consider several principles.

Habitats Directive

The *Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fora*, or the '*Habitats Directive*', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the *Habitats Directive* is transposed into national law via the *Conservation of Habitats and Species (Amendment) Regulations 2012* in England, Scotland and Wales, and via the *Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended)* in Northern Ireland.

Protection of Badgers Act 1992 (PBA 1992)

The main legislation protecting badgers in England and Wales is the *Protection of Badgers Act 1992* (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger"

National Planning Policy Framework (2012)

Following the publication of the National Planning Policy Framework (NPPF) in March 2012, *Planning Policy Statement 9* (PPS9)*: Biodiversity and Geological Conservation (*2005) has been withdrawn. However, *ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System* (the guidance document that accompanied PPS9) has not been withdrawn and, where more detailed guidance is required than is given within the NPPF, local planning authorities will continue to rely on ODPM 06/2005.

This guidance requires local planning authorities to take account of the conservation of protected species when determining planning applications and makes the presence of a protected species a material consideration when assessing a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.

In the case of European Protected Species such as bats, planning policy emphasises that strict statutory provisions apply (including the *Conservation of Habitats and Species (Amendment) Regulations 2012*), to which a planning authority must have due regard.

Where developments requiring planning permission are likely to impact upon protected species it is necessary that protected species surveys are undertaken and submitted to meet the requirements of paragraph 98 of ODPM Circular 06/2005 which states that:

'*The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.*'

General guidance within the body of the NPPF which are also potentially relevant to the possible presence of bats at the site includes the following statements:

"The planning system should contribute to and enhance the natural and local environment by:

- *protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *recognising the wider benefits of ecosystem services;*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

"Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged."

"When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- *if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;"*

Species of Principal Importance in England

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the *Natural Environment and rural Communities (NERC) Act 2006*, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance.

The Conservation of Habitats and Species (Amendment) Regulations 2012

The *Conservation of Habitats and Species (Amendment) Regulations 2012* came into force on 16th August 2012 and amends the *Conservation of Habitats and Species Regulations 2010* to ensure the various provisions of Directive 92/43/EC ('the Habitats Directive') are transposed in a clear manner.

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. The 2012 amendments include that public bodies help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 (see Table B1).

Table B1 Schedules of the Conservation of Habitats and Species (Amendment) Regulations 2012

Schedule 2 – European Protected Species of Animals		Schedule 5 – European Protected Species of Plant	
Common name	**Scientific name**	**Common name**	**Scientific name**
Horseshoe bats	Rhinolophidae - all species	Dock, Shore	*Rumex rupestris*
Common bats	Vespertilionidae - all species	Killarney Fern	*Trichomanes speciosum*
Wild Cat	*Felis silvestris*	Early Gentian	*Gentianella anglica*
Dolphins, porpoises and whales	Cetacea – all species	Lady's-slipper	*Cypripedium calceolus*
Dormouse	*Muscardinus avellanarius*	Creeping Marshwort	*Apium repens*
Pool Frog	*Rana lessonae*	Slender Naiad	*Najas flexilis*
Sand Lizard	*Lacerta agilis*	Fen Orchid	*Liparis loeselii*
Fisher's Estuarine Moth	*Gortyna borelii lunata*	Plantain, Floating-leaved water	*Luronium natans*
Newt, Great Crested	*Triturus cristatus*	Yellow Marsh Saxifrage	*Saxifraga hirculus*
Otter	*Lutra lutra*		
Lesser Whirlpool Ram's-horn Snail	*Anisus vorticulus*		
Smooth Snake	*Coronella austriaca*		
Sturgeon	*Acipenser sturio*		
Natterjack Toad	*Bufo calamita*		
Marine Turtles	*Caretta caretta*, *Chelonia mydas*, *Lepidochelys kempii*, *Eretmochelys imbricata*, *Dermochelys coriacea*		

The Hedgerow Regulations 1997

The *Hedgerow Regulations 1997* were made under Section 97 of the *Environment Act 1995* and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of

notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Wildlife and Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the '*Bern Convention*' and the *Birds Directive* are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use, or
- take or destroy an egg of any wild bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5,
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places.
- The Act also prohibits certain methods of killing, injuring, or taking wild animals

Finally, the Act also makes it an offence (subject to exceptions) to:

- intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant,
- unless an authorised person, intentionally uproot any wild plant not included in Schedule 8,
- sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise case to grow in the wild any plant which is listed in Part II of Schedule 9.

Table B2 provides a comprehensive list of plant species listed in this schedule. It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Table B2 Invasive plant species listed in Schedule 9 of the *Wildlife & Countryside Act 1981* (as amended)

Common name	Scientific name
Perfoliate alexanders	*Smyrnium perfoliatum*
Red algae	*Grateloupia luxurians*
Variagated yellow archangel	*Lamiastrum galeobdolon* subsp. *argentatum*
Yellow azalea	*Rhododendron luteum*
Himalayan balsam	*Impatiens glandulifera*
Cotoneaster	*Cotoneaster horizontalis*
Entire-leaved cotoneaster	*Cotoneaster integrifolius*
Himalayan cotoneaster	*Cotoneaster simonsii*
Hollyberry cotoneaster	*Cotoneaster bullatus*
Small-leaved cotoneaster	*Cotoneaster microphyllus*
False Virginia creeper	*Parthenocissus inserta*
Virginia creeper	*Parthenocissus quinquefolia*
Purple dewplant	*Disphyma crassifolium*
Fanwort or Carolina water-shield	*Cabomba caroliniana*
Water fern	*Azolla filiculoides*
Hottentot fig	*Carpobrotus edulis*
Three-cornered garlic	*Allium triquetrum*
Giant hogweed	*Heracleum mantegazzianum*
Water hyacinth	*Eichhornia crassipes*
Giant kelp	*Macrocystis* spp.
Giant knotweed	*Fallopia sachalinensis*
Hybrid knotweed	*Fallopia japonica* × *Fallopia sachalinensis*
Japanese knotweed	*Fallopia japonica*
Few-flowered garlic	*Allium paradoxum*
Water lettuce	*Pistia stratiotes*
Parrot's-feather	*Myriophyllum aquaticum*
Floating pennywort	*Hydrocotyle ranunculoides*

Common name	Scientific name
Duck potato	*Sagittaria latifolia*
Floating water primrose	*Ludwigia peploides*
Water primrose	*Ludwigia grandiflora*
Water primrose	*Ludwigia uruguayensis*
Rhododendron	*Rhododendron ponticum*
Rhododendron	*Rhododendron ponticum* × *Rhododendron maximum*
Giant rhubarb	*Gunnera tinctoria*
Japanese rose	*Rosa rugosa*
Giant salvinia	*Salvinia molesta*
Green seafingers	*Codium fragile*
Californian red seaweed	*Pikea californica*
Hooked asparagus seaweed	*Asparagopsis armata*
Japanese seaweed	*Sargassum muticum*
Laver seaweeds (except native species)	*Porphyra* spp
Australian swamp stonecrop or New Zealand pygmyweed	*Crassula helmsii*
Wakame	*Undaria pinnatifida*
Curly waterweed	*Lagarosiphon major*
Waterweeds	*Elodea* spp.