



**Reigate and Banstead Borough Council**

**Marketfield Road**

**BREEAM 2014 Ecology Report - DRAFT**

**April 2016**

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## Contents

<b>Executive Summary</b> .....	<b>1</b>
<b>1.0 Introduction</b> .....	<b>2</b>
1.1 Background .....	2
1.2 Site Location.....	2
1.3 Development Proposals .....	2
1.4 Survey & Reporting Objectives.....	2
<b>2.0 Legislation</b> .....	<b>4</b>
<b>3.0 Methodology</b> .....	<b>5</b>
3.1 Desk Study .....	5
3.2 Field Surveys .....	5
3.3 Limitations.....	6
<b>4.0 Baseline Conditions</b> .....	<b>7</b>
4.1 Desk study .....	7
4.2 Extended Phase 1 Habitat Survey.....	7
<b>5.0 Constraints &amp; Opportunities</b> .....	<b>10</b>
5.1 Designated Sites .....	10
5.2 Habitats .....	10
5.3 Protected & Notable Species .....	10
5.4 Enhancements .....	10
<b>6.0 Conclusions</b> .....	<b>13</b>
6.1 Mitigation .....	13
6.2 Enhancement.....	13
<b>7.0 References</b> .....	<b>14</b>

## FIGURES

### Plan 01 Habitat Plan

## APPENDIX A - Biodiversity and Environmental Legislation, Conventions & Threatened Lists



## Executive Summary

<b>Site Description and Scope of Works</b>		
The site is located between Marketfield Way and the High Street in Redhill, Surrey (nearest postcode RH1 1RH). The centre of the site is at Ordnance Survey Grid Reference TQ 2799 5051. The site consists of a parade of shops, a car park and access roads. The survey and report was completed to inform a BREEAM 2014 assessment		
<b>Potential Constraints</b>	<b>Yes</b>	<b>No</b>
<b>Bats</b>		
Has the site been assessed for bats?	✓	
Are there any structures or trees on site which have the potential to support roosting bats? (see Sections 4.2.2 and 4.2.4)		✓
<b>Breeding Birds including Barn Owls</b>		
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 Sections 4.2.2 and 4.2.4)	✓	
<b>Other features of nature conservation interest</b>		
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?	✓	
<b>Recommendations</b>	<b>Yes</b>	<b>No</b>
Are further surveys recommended to inform the ecological impact assessment?	✓	
<ul style="list-style-type: none"> <li>Nesting bird check, if nesting season cannot be avoided.</li> </ul>		
Is mitigation (including avoidance/compensation) and enhancement recommended?	✓	
Recommended ecological enhancement: <ul style="list-style-type: none"> <li>Design an extensive green/brown roof to include wildflower planting;</li> <li>Create dwellings for invertebrates on the roof; and</li> <li>Install bird boxes on/in new building walls.</li> </ul>		



## 1.0 Introduction

### 1.1 Background

WYG were commissioned by Reigate and Banstead Borough Council to carry out an ecology survey and report at Marketfield Road, Redhill (the site) in March 2016. The ecological work undertaken has been produced to support a Building Research Establishment Environmental Assessment Method (BREEAM) 2014 review (Land Use and Ecology) at the site.

This report has been produced by Tim Bradford CEnv<sup>1</sup> MCIEEM<sup>2</sup>. Tim is a practising ecologist with eight years professional ecological experience. He has a BSc. (Hons.) in Zoology and MSc. in Biodiversity and Conservation. As such he qualifies as a Suitably Qualified Ecologist (SQE) as defined in the BREEAM 2014 manual.

### 1.2 Site Location

The site is located between Marketfield Way and the High Street in the centre of Redhill, Surrey. The site centre is at Ordnance Survey Grid Reference TQ 2799 5051. The nearest postcode is RH1 1RH. The site is surrounded by retail development and roads. The wider landscape is urban, grading into green space (fields, woodland and grassland) within 0.5 km to the east of the site.

### 1.3 Development Proposals

The development plans are based on the document *Marketfield Way, Redhill: Pre-Application Meeting Information Pack: December 2015*. The proposed development will involve:

- The clearance of the site including demolition of the existing buildings;
- Construction of new buildings for residential, retail, food and entertainment purposes;
- Incorporation of new planting in the alleyways at ground level and on building roofs; and
- Underground car parking.

### 1.4 Survey & Reporting Objectives

The purpose of this survey was to provide information for a BREEAM 2014 review. As such, the ecological investigations undertaken by WYG included the following objectives:

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<sup>2</sup> Full member of the Chartered Institute of Ecology and Environmental Management



- A desk study to obtain existing information on statutory sites of nature conservation interest 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;
- A compilation of a plant list of native species found in each habitat;
- An investigation of the buildings and trees for their potential to support bats, involving a ground-based external inspection of features; and
- 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, should development proceed on site.



## 2.0 Legislation

Specific habitats and species receive legal protection in the UK under various European and domestic legislative provisions, including:

- The Conservation of Habitats and Species Regulations 2010 (as amended);
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006; and
- Wild Mammals (Protection) Act 1996.

See Appendix A for full details.

Where relevant, this report takes account of the legislative protection afforded to specific habitats and species.



## 3.0 Methodology

### 3.1 Desk Study

#### 3.1.1 Online Resources

##### Designated sites

A search for statutory sites designated for their nature conservation value was made on Natural England's interactive, web-based MAGIC (Multi Agency Geographic Information for the Countryside) database. In line with BREEAM 2014, this included Special Areas of Conservation (SAC) Special Protection Areas (SPA) and Ramsar sites within 2 km of the site. Sites of Special Scientific Interest (SSSI) within 500 m were also included; no other designated sites were considered.

##### Habitats

In line with BREEAM 2014, the desk study also used aerial imagery to determine if any of the following were likely to be found within 100m:

- Broad-leaved woodland;
- Water courses (rivers, streams or canals);
- Wetlands (ponds, lakes, marshland, fenland, reed bed);
- Flower-rich meadow/grassland; and
- Heathland (habitat/plants that thrive on acidic soils, such as heather and gorse).

Where these were found, they would be investigated during the site visit.

##### Exceptions

This desk study has not included tree preservation orders (TPO's), conservation areas or other non-biodiversity based designations.

### 3.2 Field Surveys

#### 3.2.1 Extended Phase 1 Habitat Survey

An Extended Phase 1 Habitat Survey of the site was undertaken on 29<sup>th</sup> March 2016 using the Joint Nature Conservancy Council (JNCC, 2010) standard *Phase 1 habitat survey* technique. The Phase 1 habitat survey methodology was 'extended' by undertaking an assessment of the site's potential to support protected and notable faunal species, in line with the Guidelines for Preliminary Ecological





Appraisal produced by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2013).

Additionally, any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended in 2010) as well as other notable species (such as those listed under S41 of the NERC Act 2006) were also noted. All habitat types within the site were mapped on a habitat map (Plan 1). Any additional key features / features of interest within the site were mapped as 'Target Notes'.

### **3.3 Limitations**

The Extended Phase 1 Habitat survey was undertaken outside of the optimum time of year (i.e. April to September); however, this is not considered to have been a significant limitation. All of the habitats within the site were man-made. Therefore it was still possible to classify the habitats present and make an assessment of their potential to support protected species and species of conservation concern.

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, especially those given protection under UK or European wildlife legislation.

The details of this report will remain valid for a period of two years (i.e. until March 2018). Beyond this period, if works have not yet been carried out, it is recommended that a review of the ecological status of the site is undertaken.

## 4.0 Baseline Conditions

### 4.1 Desk study

#### Designated sites

There are no designated sites within the distances stipulated by BREEAM (2 km; SAC/SPA, 500m; SSSI).

#### Habitats

To the south-east of the site there is a small strip of broadleaved woodland. This is most likely self-seeded and has grown up between Marketfield Way and the railway line. The woodland is unlikely to be impacted by the development proposals. It was separated from the site by Marketfield Way (a major road), and appears to be relatively young. Therefore it is likely to be of low ecological interest.

### 4.2 Extended Phase 1 Habitat Survey

#### 4.2.1 Bare ground

**Photo 1:** Bare ground in the car park



The majority of the site was hard standing (bare ground) comprising car parking, roads, gravel and pathways. These had no vegetation growing on them and are of **negligible** ecological value.

#### 4.2.2 Buildings and built structures

A parade of shops along the High Street were the only buildings found on the site. These were all joined together and were of similar construction. The northern two-thirds were two storey, whilst the

remaining part was slightly higher in elevation with three storeys. The buildings appeared relatively modern, i.e. around 40-50 years old.

**Photo 2:** The southern end of the parade of shops (three-storey at this point)



The parade was brick built with parapet walls surrounding moulded/felt flat roofs. All the window frames were metal and joined well to the walls with no gaps noted. There were no obvious gaps in the mortar, and the parapet wall would prevent bats gaining access under the roof. Birds could nest on the roof. With this exception the parade was of **negligible** ecological value

**Photo 3:** Metal shipping containers



In addition to this there were two metal shipping containers (Target Note 1, Plan 01) and an electrical substation (Target Note 2, Plan 01). These were relatively low (2-3m tall) metal structures which were relatively impermeable and of **negligible** ecological value.

**Photo 4:** The electricity substation



#### **4.2.3 Scattered trees**

A row of planted trees were found along Marketfield Way. These appeared to be all beech *Fagus sylvaticus*. All of these trees were immature or semi-mature specimens (likely less than 50 years old). They had relatively narrow stems (approximately 100-200 mm diameter). They had no cracks, crevices or other features of value to bats. They were sufficiently large and branched to support nesting birds. However they were adjacent to a busy road (Marketfield Way) and car park, therefore any bird using them would have to tolerate high levels of noise. The trees were of **low** ecological value.

#### **4.2.4 Protected & Notable Species**

The site may support nesting birds which could use the roof of the shopping parade and/or the trees to nest on/in.

No other protected species were likely to use the land on or immediately around the site.

No invasive species were found within the site boundary.



## 5.0 Constraints & Opportunities

### 5.1 Designated Sites

No designated sites were found within the distances stipulated by the BREEAM 2014 manual. As such, for the purposes of this assessment, there will be no impacts upon any designated sites.

### 5.2 Habitats

Broadleaved woodland was found within 100 m of the site. The woodland was separated from the site by a busy road. Therefore it is unlikely that it will be impacted (physically or by noise or light disturbance) during the construction or operational phases of the development. The habitats on site were almost exclusively man-made and of **low** or **negligible** ecological value. No further surveys are necessary for the habitats.

### 5.3 Protected & Notable Species

The only protected or notable species likely to use the site are nesting birds. Demolition of the buildings, and felling of trees (if required) could result in the destruction of nests. Birds and their nests are protected under the *Wildlife and Countryside Act 1981* (as amended). Therefore the proposed works could contravene this act.

To avoid this, it is recommended that demolition of buildings and felling of trees takes place outside the bird nesting season. This bird nesting season generally runs from March to September inclusive, therefore, demolition and tree clearance should take place between October to February inclusive. If this period cannot be avoided, a check for active bird nests should be carried out no more than 24-48 hours prior to works commencing. If a bird's nest is found, no works can be carried out within a certain buffer zone of this nest, until the young have fledged. How large the buffer zone is depends on the level of disturbance caused and species of bird, but as a minimum it should be 5 m.

### 5.4 Enhancements

The re-development of this site will allow opportunities for biodiversity to be built in. Part of BREEAM 2014, Land Use and Ecology, requires practical ecological enhancements to be considered. Due to the urban nature of the site, with its separation from green links by roads, the most likely benefits will come from enhancement for botany, invertebrates and birds.



#### **5.4.1 Botany (habitats)**

The development design incorporates alleyway and roof-top planting. The rooftop planting in particular can be used to improve the diversity of plants found in the town centre. This will in turn support animal species (e.g. birds and invertebrates). It is recommended that the landscape designs for the roof use extensive (i.e. low management) planting. These generally use thinner levels of soil and have shorter herbaceous species rather than shrubs.

The species mix should reflect local habitats. Redhill is located close to the North Downs, which being chalk includes many areas of diverse wildflower meadows. Whilst it may be difficult to replicate such meadows, many common wildflower species can thrive on roof terraces, which being relatively nutrient poor and thin do not support larger woody competitors. Wildflower terraces usually contain a significant number of species which can then feed many invertebrate and bird species.

Management of the roof top should be relatively light. They should only need watering in extreme drought. Occasional (annual) visits should be carried out to remove invasive species such as butterfly bush *Buddleja davidii* before they get fully established.

#### **5.4.2 Invertebrates**

Enhancing the site for invertebrates is likely to require a relatively small amount of work, as individuals find various routes onto new habitats once created (wind borne, flying, carried by larger animals etc). In addition to providing new habitats (alleyway trees and roof top planting) invertebrate homes can be created. These can be in the form of pre-assembled bee houses, 'insect hotels' or similar; or they can be constructed on site. Piles of wood, rubble, sand or soil on the rooftop will provide opportunities for invertebrates. Ideally these should have a south facing slope to gain the maximum

Management of the invertebrate habitat will be relatively straightforward. The habitats should be checked annually. Where piles of wood, rubble, etc are created, these should be allowed to organically weather. If ready-made invertebrate boxes or other dwellings are bought, these should be checked and repaired if necessary. Maintenance of the wildflower meadow, as outlined above will maintain suitable foraging opportunities for invertebrates.

#### **5.4.3 Birds**

To improve the site for birds, new bird boxes can be built on or into the walls of the new structures. A mix of boxes should be used; some with holes, and where possible at least one sparrow terrace



should be incorporated. Bird boxes should not be placed on a south-facing elevation to avoid the chicks overheating.

Generally bird boxes will require little maintenance. Free hanging boxes should be checked annually and repaired when necessary. These checks and repairs should take place in the winter months when birds are not likely to be nesting (November to February).



## 6.0 Conclusions

### 6.1 Mitigation

The site and surrounding area was generally of low or negligible ecological value. With the exception of nesting birds, no further mitigation work for designated sites, habitats, protected or notable species is necessary.

Nesting birds: If vegetation is cleared, or buildings demolished, these works should avoid the bird nesting season (which runs March to September inclusive). If this is not possible a nesting bird check should take place before works commence.

### 6.2 Enhancement

The following enhancements should be considered:

- Design an extensive green/brown roof to include wildflower planting;
- Create dwellings for invertebrates on the roof; and
- Install bird boxes on/in the new building walls.





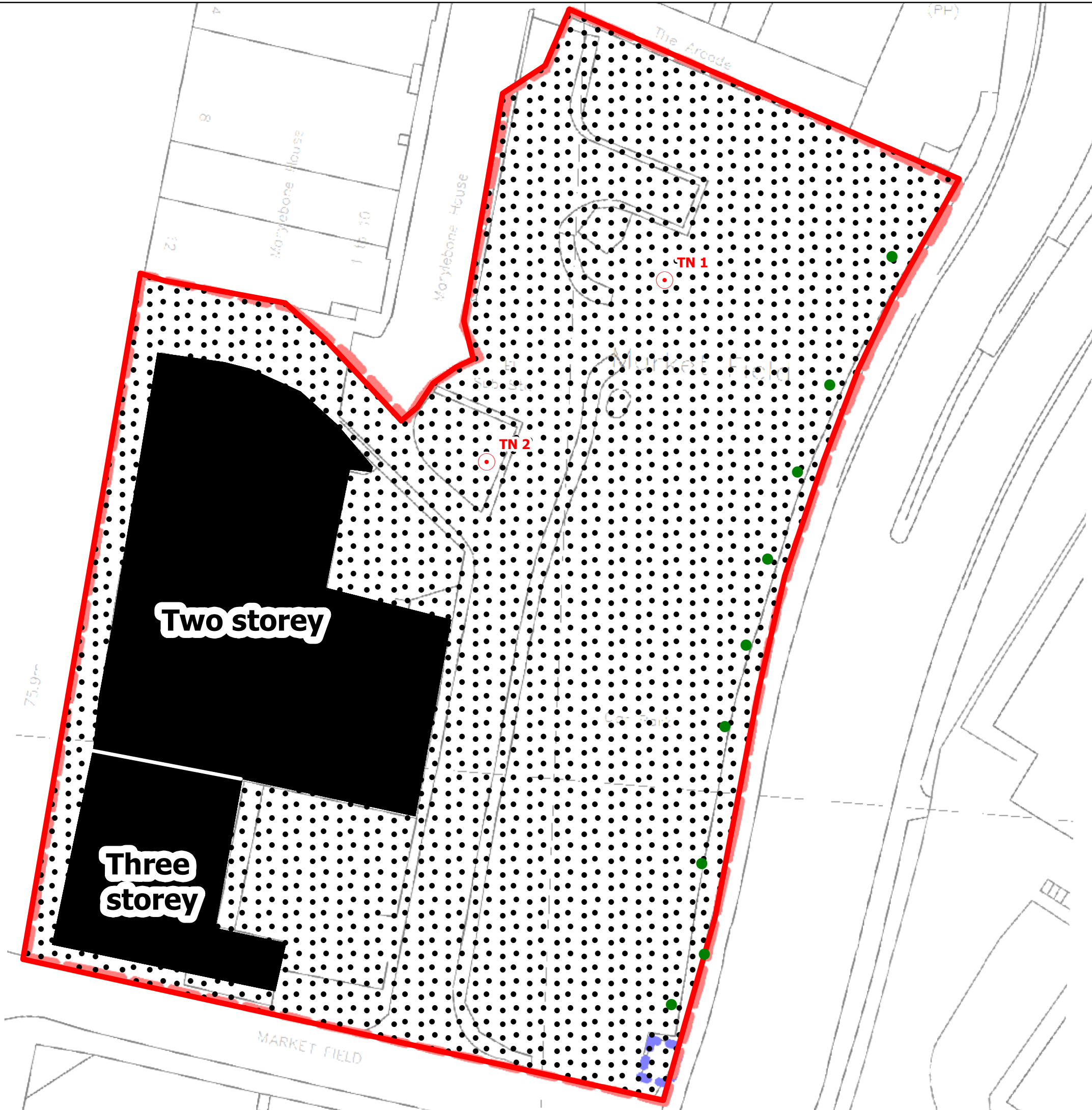
## 7.0 References

- Building Research Establishment (2014): *BREEAM UK New Construction: Non-Domestic Buildings (United Kingdom): Technical Manual: SD5076:4.1 – 2014* BRE Global, Watford
- Chartered Institute for Ecology and Environmental Management (2013) *Guidelines for Preliminary Ecological Appraisal*. CIEEM, Winchester
- Joint Nature Conservation Committee (2010) *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. JNCC, Peterborough



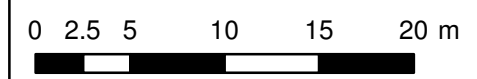
# FIGURES

## Plan 01 Habitat Plan



### Legend

- Boundary
  - Building
  - Bare ground
  - Scattered trees
  - Target note
- TN1: Shipping containers  
TN2: Electrical substation



Drawing title:  
**Habitat Map**

Project:  
A096994 Marketfield Road, Redhill

Client:  
Reigate and Banstead Borough Council

Scale (A3): 1:400	Created by: TJB 27/04/16	Reviewed by: ---	Verified by: ---
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Office: 4594	Drawing number: PLAN 01	Revision: Rev.01
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# **APPENDIX A - 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 habitats, either independently or as member state of the European Union. These are defined and summarised below.

Lists of threatened, endangered 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 Convention, and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countries 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 Directive* (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1<sup>st</sup> December 2009, European legislation has been adopted by the European Union.

## **Local Biodiversity Action Plan**

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 occurring 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 2015 (Eaton *et al*, 2015) and identified 67 red list species, 96 amber species, and 81 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 localised 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 *Wildlife & Countryside Act 1981* (as amended), *Wildlife (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) Threatened 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 Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories 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 Flora*, 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"



## Natural Environment and Rural Communities Act 2006

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 Regulations 2010 (as amended)

The *Conservation of Habitats and Species Regulations 2010* (as amended) transpose the various provisions of Directive 92/43/EC ('the Habitats Directive') into UK law.

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 A1).

**Table A1 Schedules of the Conservation of Habitats and Species Regulations 2010 (As amended)**

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	<i>Rumex rupestris</i>
Common bats	Vespertilionidae - all species	Killarney Fern	<i>Trichomanes speciosum</i>
Wild Cat	<i>Felis silvestris</i>	Early Gentian	<i>Gentianella anglica</i>
Dolphins, porpoises	Cetacea – all species	Lady's-slipper	<i>Cypripedium calceolus</i>





Schedule 2 – European Protected Species of Animals		Schedule 5 – European Protected Species of Plant	
Common name	Scientific name	Common name	Scientific name
and whales			
Dormouse	<i>Muscardinus avellanarius</i>	Creeping Marshwort	<i>Apium repens</i>
Pool Frog	<i>Rana lessonae</i>	Slender Naiad	<i>Najas flexilis</i>
Sand Lizard	<i>Lacerta agilis</i>	Fen Orchid	<i>Liparis loeselii</i>
Fisher's Estuarine Moth	<i>Gortyna borelii lunata</i>	Plantain, Floating-leaved water	<i>Luronium natans</i>
Newt, Great Crested	<i>Triturus cristatus</i>	Yellow Marsh Saxifrage	<i>Saxifraga hirculus</i>
Otter	<i>Lutra lutra</i>		
Lesser Whirlpool Ram's-horn Snail	<i>Anisus vorticulus</i>		
Smooth Snake	<i>Coronella austriaca</i>		
Sturgeon	<i>Acipenser sturio</i>		
Natterjack Toad	<i>Bufo calamita</i>		
Marine Turtles	<i>Caretta caretta</i> , <i>Chelonia mydas</i> , <i>Lepidochelys kempii</i> , <i>Eretmochelys imbricata</i> , <i>Dermochelys coriacea</i>		

### 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 cause 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	<i>Smyrniium perfoliatum</i>
Red algae	<i>Grateloupia luxurians</i>
Variagated yellow archangel	<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>
Yellow azalea	<i>Rhododendron luteum</i>
Himalayan balsam	<i>Impatiens glandulifera</i>
Cotoneaster	<i>Cotoneaster horizontalis</i>
Entire-leaved cotoneaster	<i>Cotoneaster integrifolius</i>
Himalayan cotoneaster	<i>Cotoneaster simonsii</i>
Hollyberry cotoneaster	<i>Cotoneaster bullatus</i>
Small-leaved cotoneaster	<i>Cotoneaster microphyllus</i>
False Virginia creeper	<i>Parthenocissus inserta</i>
Virginia creeper	<i>Parthenocissus quinquefolia</i>
Purple dewplant	<i>Disphyma crassifolium</i>
Fanwort or Carolina water-shield	<i>Cabomba caroliniana</i>
Water fern	<i>Azolla filiculoides</i>
Hottentot fig	<i>Carpobrotus edulis</i>
Three-cornered garlic	<i>Allium triquetrum</i>
Giant hogweed	<i>Heracleum mantegazzianum</i>
Water hyacinth	<i>Eichhornia crassipes</i>
Giant kelp	<i>Macrocystis</i> spp.
Giant knotweed	<i>Fallopia sachalinensis</i>
Hybrid knotweed	<i>Fallopia japonica</i> × <i>Fallopia sachalinensis</i>
Japanese knotweed	<i>Fallopia japonica</i>
Few-flowered garlic	<i>Allium paradoxum</i>
Water lettuce	<i>Pistia stratiotes</i>
Parrot's-feather	<i>Myriophyllum aquaticum</i>
Floating pennywort	<i>Hydrocotyle ranunculoides</i>
Duck potato	<i>Sagittaria latifolia</i>
Floating water primrose	<i>Ludwigia peploides</i>
Water primrose	<i>Ludwigia grandiflora</i>
Water primrose	<i>Ludwigia uruguayensis</i>
Rhododendron	<i>Rhododendron ponticum</i>
Rhododendron	<i>Rhododendron ponticum</i> × <i>Rhododendron maximum</i>
Giant rhubarb	<i>Gunnera tinctoria</i>
Japanese rose	<i>Rosa rugosa</i>



Common name	Scientific name
Giant salvinia	<i>Salvinia molesta</i>
Green seafingers	<i>Codium fragile</i>
Californian red seaweed	<i>Pikea californica</i>
Hooked asparagus seaweed	<i>Asparagopsis armata</i>
Japanese seaweed	<i>Sargassum muticum</i>
Laver seaweeds (except native species)	<i>Porphyra</i> spp
Australian swamp stonecrop or New Zealand pygmyweed	<i>Crassula helmsii</i>
Wakame	<i>Undaria pinnatifida</i>
Curly waterweed	<i>Lagarosiphon major</i>
Waterweeds	<i>Elodea</i> spp.



