



Ecological Impact Assessment (EcIA)

Site:

Land between Prislow Woods and Swanvale, Cornwall

Grid Reference: SW 7975 3214 - SW 7976 3186



18th September 2020 version 1

Plan for Ecology Ltd

Tremough Innovation Centre

Tremough Campus, Penryn, Cornwall, TR10 9TA

Tel: 01326 218839

www.planforecology.co.uk


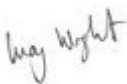


Document Control:

Site Name:	Land between Prislow Woods and Swanvale, Falmouth, Cornwall
OS Grid Reference:	SW 7975 3214 - SW 7976 3186
Report Author:	Dr Kim Jelbert BSc (Hons) MSc PhD MCIEEM
Document Approved by:	Dr Lucy Wright BSc (Hons) MSc PhD MCIEEM
Client:	Falmouth Town Council
Report Reference Number:	P4E2101
Version:	01
Date:	18 th September 2020

Declaration:

"The information, evidence and advice, which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology & Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our and professional bona fide opinions."

Kim Jelbert	
Lucy Wright	

Report Lifespan:

Ecological features can change over time, particularly if site management/ use changes. Typically, ECIA's are valid for one year (until September 2021).



CONTENTS

1.0	NON-TECHNICAL SUMMARY.....	5
2.0	PHASE 1 HABITAT DISTRIBUTION AND ECOLOGICAL CONSTRAINTS & OPPORTUNITIES PLAN (MAP 1A-B)	7
3.0	INTRODUCTION.....	10
3.1	BACKGROUND & PURPOSE OF SURVEY	10
3.2	SITE LOCATION & DESCRIPTION	10
3.3	PROPOSED SITE PLANS	10
3.4	PROJECT ADMINISTRATION	10
4.0	METHODOLOGY.....	11
4.1	SURVEY METHODS	11
4.2	ECOLOGICAL IMPACT ASSESSMENT (EcIA)	12
4.3	LIMITATIONS	14
5.0	ASSESSMENT RESULTS	15
5.1	DESIGNATED SITES AND LOCAL CONSERVATION INITIATIVES	15
5.2	PHASE 1 HABITAT DISTRIBUTION	15
5.3	NOTABLE HABITATS	17
5.4	NOTABLE SPECIES	19
6.0	MITIGATION RECOMMENDATIONS	25
6.1	DESIGNATED SITES	25
6.2	HABITATS	25
6.3	SPECIES	25
6.4	BIODIVERSITY ENHANCEMENTS	27
6.5	FURTHER SURVEYS	27
6.6	MONITORING	28
6.7	HABITAT LOSS/ GAIN SUMMARY	ERROR! BOOKMARK NOT DEFINED.
7.0	IMPACT ASSESSMENT	28
7.1	RESIDUAL IMPACTS	29
8.0	REFERENCES.....	30
9.0	APPENDIX 1: LOCATION OF SITE AND DESIGNATED SITES OF NATURE CONSERVATION IMPORTANCE.....	33



10.0 APPENDIX 2: PHASE 1 HABITAT PLANT LIST	37
11.0 APPENDIX 3: LEGISLATION AND PLANNING POLICY	39
12.0 APPENDIX 4: ERCCIS SPECIES RECORDS	46



1.0 Non-Technical Summary

In late August 2020, Simon Penna on behalf of Falmouth Town Council commissioned Plan for Ecology Ltd to undertake an Ecological Impact Assessment (EcIA) and a Preliminary Ground Level Tree Roost Assessment of land between Prislow Woods and Swanvale in Falmouth, Cornwall (OS Grid Ref: SW 7975 3214 - SW 7976 3186). The client proposes to install a formal pedestrian route through Prislow Woods, connecting to the existing public rights of way at Swanvale. At present, the site supports a network of unofficial paths used by pedestrians. The Ecological Impact Assessment (EcIA) comprised an extended Phase 1 Habitat Survey/ Preliminary Ecological Appraisal, and a site assessment, to assess the potential of the site to support protected species. In addition, a Preliminary Ground Level Roost Assessment of trees within the vicinity of the proposed pedestrian route was undertaken. This EcIA report describes and evaluates the results of the site surveys in accordance with the CIEEM Guidelines for Ecological Impact Assessment (CIEEM, 2018).

The site comprises a block of wet woodland with a stream, which feeds into Swanpool Local Nature Reserve and, in turn, Swanpool Site of Special Scientific Interest (SSSI). There are two features of ecological importance within the site: stream and wet woodland (UK BAP; S41 NERC Act, 2006 Habitats of Principle Importance). Notable species / species groups with potential to occur on-site include reptile species; breeding birds; bats (roosting, foraging and commuting); amphibian species; hedgehog; badger; otter and invertebrate species. Ecological constraints and opportunities are detailed on Map 1a-b (below). The proposed development must incorporate the following mitigation measures:

- **Designated sites & stream:** Works within the vicinity of a watercourse require 'Ordinary Watercourse Consent' from the Environment Agency (EA). <https://www.gov.uk/permission-work-on-river-flood-sea-defence>. Sensitive working practices to be implemented in accordance with Environment Agency's withdrawn Pollution Prevention Guidelines.
- **Wet woodland:** Construction of a boardwalk will require felling and pruning of a number of trees, most of which are grey willow. Follow BS5837: 2012 Trees in relation to design, demolition and construction, and the recommendations within the detailed arboricultural survey report. Installation of the boardwalk will, however, not result a loss of wet woodland habitat because the boardwalk will largely be constructed over the existing network of paths, which vary in their level of use; some are well worn, while others are not. Installation of a formal pedestrian route will likely reduce use of the wider network of unofficial paths and recreational pressure on the wider site. Supplementary planting of native species including thorny species such as hawthorn in the vicinity of the network of unofficial paths will likely deter use, and result in a net gain of woodland habitat. **NB:** the loss and gain of wet woodland habitat resulting from the installation of a boardwalk is too small to quantify using the DEFRA Biodiversity Metric 2.0.
- **Badger, otter and hedgehog:** Implement measures to ensure that harm to individual animals during construction is prevented; and provide continued access to the site post-development. A post-planning, pre-construction walkover survey to check for badger setts and otter resting places is required.
- **Birds & reptiles:** Schedule works for a time of year when these species groups will not be present/ susceptible to harm. Alternatively, carryout works under an ecological watching brief.
- **Bats (foraging & commuting):** In accordance with the Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016) the site is assessed as being of 'moderate



suitability' for bats. Further surveys are not recommended due to the minor nature of the proposals.

- **Bats (roosting):** Several trees within the vicinity of the proposed pedestrian route have potential to support roosting bats (Map 1a-b) but none are to be pruned or felled. No further surveys are required to inform the planning application but a post-planning, pre-construction walkover survey to check trees for roosting bats is required. A precautionary approach should be adopted during felling and pruning of trees.
- **Invasive plants:** Montbretia is present within the site. This species is listed on Schedule 9 WCA 1981 making it an offence to cause it to spread to the wild. In addition, a number of invasive plant species that are not listed on Schedule 9 WCA (1981) are present on site: winter heliotrope, American skunk cabbage and buddleja were observed on site. Myrtle, a notoriously weedy species, was also widely distributed across the site, along with cherry laurel. Development of the site must be informed with an invasive plant method statement to include a pre-construction survey to map all invasive plant stands. There is opportunity to enhance the biodiversity value of the site by eradicating invasive plant species (See Section 6.4).
- **Further surveys:** No further surveys are required to inform the planning application.
- **Biodiversity Enhancements:** There is opportunity to incorporate features to enhance aspects of the site for biodiversity. See Map 1a-b below.

The residual impact of the proposed construction of a pedestrian boardwalk is considered likely to have a neutral to positive impact, at a local scale, on the ecology of the site, subject to the successful implementation of the mitigation outlined in this report. The proposals will likely result in a net gain in wet woodland habitat by reducing recreational pressure on the existing network of unofficial footpaths, allowing these areas to recover with the aid of additional supplementary planting. **NB:** loss and gain of wet woodland habitat resulting from the installation of a boardwalk is too small to quantify using the DEFRA Biodiversity Metric 2.0.



2.0 Phase 1 Habitat Distribution and Ecological Constraints & Opportunities Plan (Map 1a-b)

Map 1a: Land between Prislow Woods and Swanvale, Falmouth - Phase 1 Habitat Distribution and Ecological Constraints & Opportunities Plan (ECOP)

Opportunities: The proposals will likely result in a net gain in wet woodland habitat by reducing recreational pressure on the existing network of unofficial footpaths. Enhancement measures are listed as follows:







- 1) Remove sycamore trees with a trunk diameter of less than 150mm;
- 2) Remove invasive, non-native cherry laurel and myrtle from the site;
- 3) Eradicate montbretia (Sch. 9 WCA 1981), winter heliotrope (Target Note 1, Map 1a-b), American skunk cabbage (Target Note 16, Map 1a-b) and buddleja;
- 4) Augment woodland with supplementary planting of hazel, birch, hawthorn and holly within drier parts of the site, notably within the vicinity of the network of unofficial paths. The aim being to reduce use of unofficial paths and thereby alleviate recreational impacts on wet woodland habitat;
- 5) Careful pruning of trees and shrubs over standing water will increase light reaching the pond, which will likely enhance its value for biodiversity;
- 6) There is opportunity to enhance the site for roosting bats and nesting birds by installing boxes within on-site trees; and
- 7) Maximize the value of the site for invertebrates, amphibians, reptiles and hedgehog by providing piles of deadwood from felled/pruned trees.

Constraint: Montbretia is present within the site. This species is listed on Schedule 9 WCA 1981 making it an offence to cause it to spread to the wild. In addition, a number invasive plant species that are not listed of Schedule 9 WCA (1981) are present on site: winter heliotrope, American skunk cabbage, buddleja, myrtle and cherry laurel. Development of the site must be informed with an invasive plant method statement to include a pre-construction survey to map all invasive plant stands.

Target Notes:

1. Petasites fragrans (winter heliotrope) - environmental weed.
2. Unidentified disused mammal burrow beneath tree trunk - possible mink (too small for otter and badger).
3. Asplenium obovatum - Nationally Scarce spleenwort.
4. Acer pseudoplatanus (sycamore) - moderate bat roost suitability.
5. Angelica sylvestris - wild angelica.
6. Salix cinerea (grey willow) - moderate bat roost suitability.
7. Badger footprint on river bank.
8. Bridge.
9. Pollarded Alnus glutinosa (alder) with dense ivy (Hedera helix).
10. Concrete plinth 15x9m.
11. Acer pseudoplatanus - moderate bat roost suitability.
12. Ilex aquilinum (holly) - moderate bat roost suitability.
13. Alnus glutinosa - dense ivy clad; low bat roost suitability.
14. Crocosmia × crocosmiiflora (montbretia) - Sch. 9 WCA 1981 invasive plant.
15. Prunus laurocerasus (cherry laurel) - environmental weed.
16. Standing water (pond).
17. Lysichiton americanus (American skunk cabbage) - environmental weed.
18. Pollarded alder.
19. Myrtus communis (myrtle - environmental weed distributed through the site).

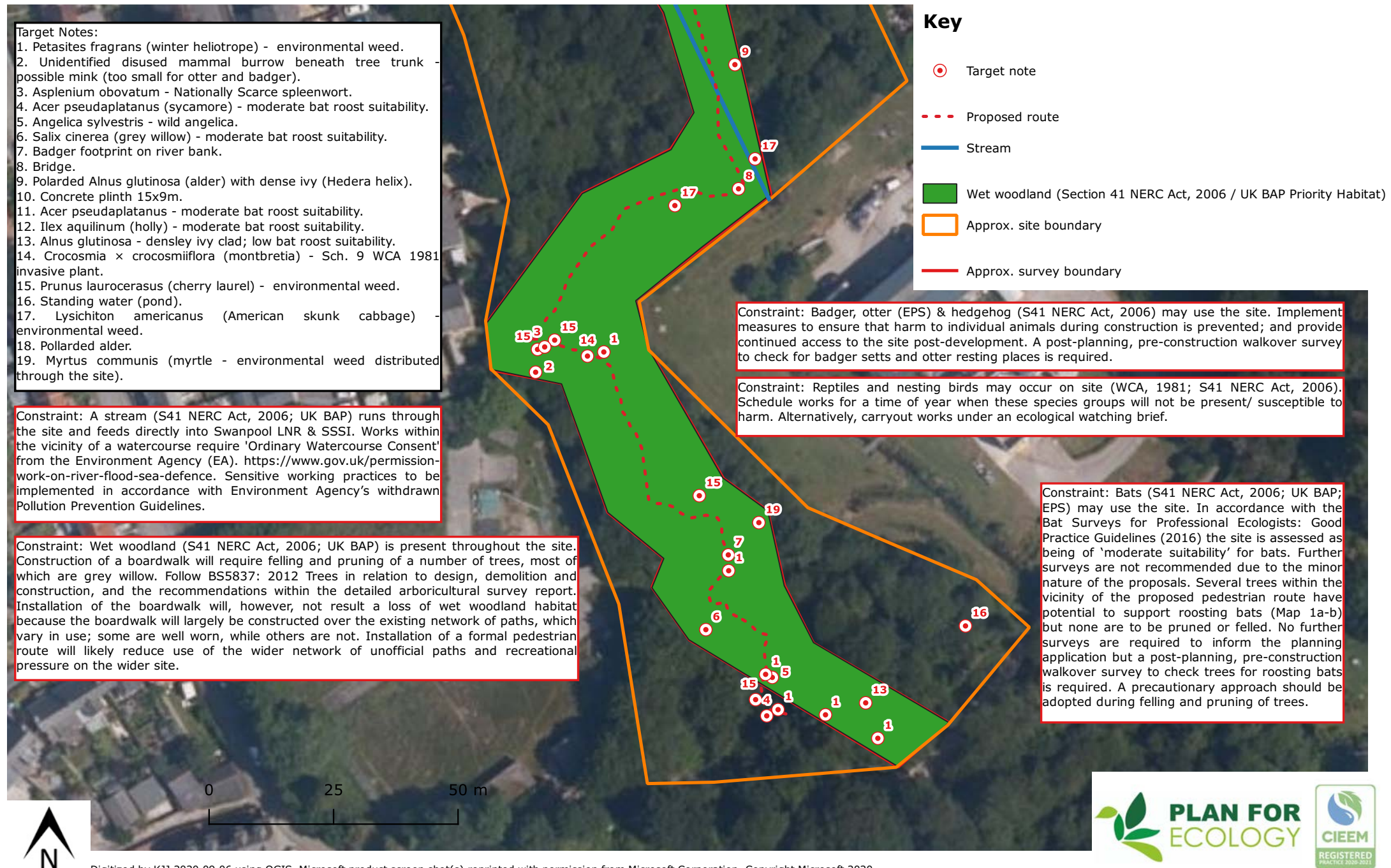
Key

-  Target note
-  Proposed route
-  Stream
-  Wet woodland (Section 41 NERC Act, 2006 / UK BAP Priority Habitat)
-  Approx. site boundary
-  Approx. survey boundary

0 25 50 m



Map 1b: Land between Prislow Woods and Swanvale, Falmouth - Phase 1 Habitat Distribution and Ecological Constraints & Opportunities Plan (ECOP)





3.0 Introduction

3.1 Background & Purpose of Survey

In late August 2020, Simon Penna, on behalf of Falmouth Town Council, commissioned Plan for Ecology Ltd to undertake an Ecological Impact Assessment (EcIA) and a Preliminary Ground Level Roost Assessment of land between Prislow Woods and Swanvale in Falmouth, Cornwall (OS Grid Ref: SW 7975 3214 - SW 7976 3186). The client proposes to install a formal pedestrian route through Prislow Woods, connecting to the existing public rights of way at Swanvale. At present, the site supports a network of unofficial paths used by pedestrians. The indicative pedestrian route is shown on Map 1a-b above (Phase 1 Habitat Distribution and Ecological Constraints & Opportunities (ECOP)). A location plan showing the designated sites of nature conservation importance within a 1km radius of the site is provided at Appendix 1.

3.2 Site Location & Description

The site, defined as the area enclosed with the orange boundary line on Map 1a-b, measures c. 2.04 ha and comprises a parcel of wet woodland habitat located within the suburbs of Falmouth, Cornwall. The site is located approximately 1.4km east of Budock Water, and c. 3.2km south-east of Penryn, Cornwall. A plan showing the location of the site and of designated sites of nature conservation importance is shown at Appendix 1. The site comprises a block of wet woodland with a stream, which feeds into Swanpool Local Nature Reserve and, in turn, Swanpool Site of Special Scientific Interest (SSSI). Beyond the site boundary, residential development largely dominates to the north, east and west, with nearby green corridors including Tregoniggy Woods, the Penryn to Falmouth railway and semi-natural coastal habitat.

3.3 Proposed Site Plans

The client proposes to install a formal pedestrian route through Prislow Woods, connecting to the existing public rights of way at Swanvale, Falmouth. At present, the site supports a network of unofficial paths used by pedestrians. The proposed new pedestrian route aims to replace the network of unofficial paths with one formal path. The site is wet in places and seasonally inundated with water, therefore, a boardwalk will be constructed to raise the level of the path and provide access all year round. The indicative pedestrian route is shown on Map 1a-b above (Phase 1 Habitat Distribution and Ecological Constraints & Opportunities (ECOP)). This route has been selected to avoid ponds and minimise removal of wet woodland trees.

3.4 Project Administration

Site Name:	Land between Prislow Woods and Swanvale, Falmouth, Cornwall
OS Grid Reference:	SW 7975 3214 - SW 7976 3186
Client:	Falmouth Town Council
Planning Authority:	Central 1
Report Reference Number:	P4E2101
Site proposals:	Installation of a pedestrian boardwalk through wet woodland habitat with stream
Survey Date:	4 th September 2020 (extended Phase 1 Habitat Survey & Preliminary Ground Level Roost Assessment)



Ecologist & Licence Numbers: Dr Kim Jelbert BSc (Hons), MSc, PhD, MCIEEM (Bat licence no: 2015-10444-CLS-CLS; Barn owl licence no. CL29/00037; Dormouse license no: 2016-22394-CLS-CLS)
--

4.0 Methodology

This assessment has been carried out in accordance with the 'Guidelines for Preliminary Ecological Appraisal' produced by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017); BS42020-2013 Biodiversity – Code of Practice for Planning & Development, as adopted by local planning authorities (British Standard, 2013) and the CIEEM Guidelines for Ecological Impact Assessment (CIEEM, 2018).

4.1 Survey Methods

The Preliminary Ecological Appraisal (PEA):

The Preliminary Ecological Appraisal (PEA) comprised a desk study, a survey and a report. The desk study is a search of all ecological records and site designations held by the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS, to 2019) within a 1km radius of the site. The distance between the site boundary and nearby European sites was measured using MAGIC <http://www.magic.gov.uk> to determine whether the site falls within a European site Zone of Influence.

The survey comprised an extended Phase 1 Habitat Survey. The site is defined as all land within the orange site boundary as shown on Map 1a-b. The Phase 1 Habitat survey area is defined as all land within the red site boundary as shown on Map 1a-b. The Phase 1 Habitat Survey identifies the habitats present and their associated plant species (JNCC, 2010), and assesses the potential of the site to support protected species.

The surveyor also searched for invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981, as amended) within the Phase 1 habitat survey area and 7m beyond (where access was available), and evidence of badger and otter, notably setts and holts/ hovers (resting places) within 30m of the Phase 1 Habitat survey area (where access was available).

Preliminary Ground Level Roost Assessment:

A Preliminary Ground Level Roost Assessment (PGLRA) of trees within the Phase 1 Habitat survey area was undertaken. This consists of a detailed inspection of the exterior of trees from ground level to look for features that bats could use for roosting (PRFs). The tree species and diameter at breast height were all noted. The tree was systematically searched for PRFs.

PRFs that may be used by bats include:

- woodpecker holes;
- rot holes;
- hazard beams;
- other vertical or horizontal cracks and splits (such as frost cracks) in stems or branches;
- partially detached, platey bark;
- knot holes arising from naturally shed branches, or branches previously pruned back to branch collar;



- man-made holes or cavities created by branches tearing out from parent stems;
- cankers (caused by localised bark death) in which cavities have developed;
- other hollows or cavities, including butt rots;
- double-leaders forming compressed forks creating potential cavities;
- gaps between overlapping stems or branches;
- partially detached ivy with stem diameters in excess of 50mm;
- bat, bird or dormouse boxes.

Signs of a bat roost include:

- presence of bats;
- bat droppings in, around or below a PRF;
- odour emanating from a PRF;
- audible squeaking at dusk or in warm weather;
- staining below the PRF.

Potential bat roosts identified during the PGLRA were categorised as to their suitability in accordance with the Bat Conservation Trust's (BCT) Good Practice Guidelines (Collins, 2016) as described below:

- Negligible: negligible features with potential to support roosting bats.
- Low: one or more features with potential to support individual bats on an occasional basis. Unlikely to support large numbers of bats.
- Moderate: one or more features with potential to support roosting bats but unlikely to be of high conservation status.
- High: one or more features with potential to support large numbers of bats on a regular basis.

4.2 Ecological Impact Assessment (EcIA)

Within the Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018), the Chartered Institute of Ecology and Environmental Management (CIEEM) recommend an approach to ecological evaluation that utilises available guidance and information, such as the distribution and status of the species or features within the locality of the Site, and professional judgment.

The methods and standards for site evaluation within the British Isles are defined in 'A Nature Conservation Review' (Ratcliffe, 2009). They are broadly used across the United Kingdom to rank sites, so priorities for nature conservation can be attained. The criteria are size (NB: all size measurements have been obtained from the architects), diversity, naturalness, rarity and fragility, with secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units.

The assessment judges features within the site in relation to other sites because a number of habitats may be of nature conservation importance when combined. Habitats of local importance are often highlighted within a local BAP.

Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the international level.

The legislative and planning policy context are important and have been given full consideration in this assessment.

Within the Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018), CIEEM recommend an approach to ecological evaluation that utilizes available guidance and information,



such as the distribution and status of the species or features within the locality of the Site, and professional judgment. The likely value of ecological features is determined within a geographical context in accordance with the CIEEM Guidelines for Ecological Impact Assessment (CIEEM, 2018). Value is assigned in decreasing order of importance as follows: International/ European, UK, Regional (southwest), County, District, Parish, Local, within the Zone of Influence and Negligible.

There are also a number of other important considerations as follows:

- Designated Sites and Features (e.g. Special Protection Areas, SPA; SAC; Sites of Special Scientific Interest, SSSI; ecologically important hedgerows etc.);
- Biodiversity Value (use of BAP and local development plans);
- Potential Value;
- Secondary or Supporting Value;
- Social or Economic Value; and
- Legal Designation.

Ecologically important features to be affected by the proposed development were identified using the criteria described above. Likely impact upon a feature(s) was determined to be significant or not by considering the factors that categorize its ecological structure and function.

Where an impact (positive or negative) on the integrity of a defined feature (habitat, species or ecosystem) was identified, the impact significance has been described in the following terms: major, moderate, minor and negligible. The likelihood of the impact occurring was described as: certain / near certain (probability estimated at 95% chance or higher), probable (probability estimated above 50% but below 95%), unlikely (probability estimated above 5% but below 50%) and extremely unlikely (probability estimated below 5%). Reference has also been made to the extent and magnitude of impact (i.e. area affected) and duration (short-term impacts associated with construction and long-term impacts associated with the operational phase of the development). A significant effect is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general (CIEEM, 2018).

The impact significance of the proposed development on the integrity of the site as a whole has been determined using the framework described above. Site integrity has been defined as follows: 'The integrity of a site is the coherence of its ecological structure and function, across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified (CIEEM, 2018). Site integrity is dependent on the extent, magnitude and duration of impacts upon each ecological feature (habitats or species). The accumulative impact, across all features, is therefore used to determine overall impact significance on the integrity of the Site, and in EIA terms. Available guidance and information, such as the distribution and status of the species or features, and professional judgment have been used to determine impact significance. Where an identified adverse impact cannot be fully mitigated, the residual impact remains. This residual impact in combination with similar impacts locally could constitute a cumulative impact. Due to the small scale and nature of the proposed development, only cumulative impact arising from potential development of adjoining land is considered within this assessment.

This report describes and evaluates the ecological interest of the site, identifies potential impacts that the works may have on wildlife, and details adopted recommendations to avoid, mitigate and/or compensate for these impacts, in accordance with BS42020-2013 Biodiversity – Code of Practice for



Planning & Development (British Standard, 2013) and the CIEEM Guidelines for Ecological Impact Assessment (CIEEM, 2018).

Recommendations are provided using the Mitigation Hierarchy (British Standard, 2013; CIEEM, 2018). The Mitigation Hierarchy seeks to avoid impacts, then to mitigate unavoidable impacts, and, as a last resort, to compensate for residual impacts that remain after implementation of avoidance and mitigation measures. Biodiversity enhancements are also detailed.

4.3 Limitations

Vegetation Surveys: September is an acceptable time of year to undertake vegetation surveys (Phase 1 Habitat and invasive plant surveys) because most species will be visible, some will be in flower and many will have seed capsules present (important identification features). However, some early flowering species including some Schedule 9 WCA (1981) invasive plant species may have undergone vegetative dieback and will not be visible.

Badger and Otter: Vegetation was generally dense and had some potential to conceal a badger sett or otter resting place (holt or hover). However, the ground was wet throughout, limiting the suitability of the site for badger setts, which are typically located on embankments with free draining soil. The stream and wet woodland provide suitable habitat for otter. It is possible that dense vegetation could conceal an otter resting place.

Preliminary Ground Level Roost Assessment (PGLRA): PGLRA can be undertaken at any time of year but are best undertaken in winter when foliage is less likely to reduce visibility.

Ecological features can change over time, particularly if site management/ use changes. Typically, Preliminary Ecological Appraisals and PGLRA are valid for one year (until September 2020). A search for Tree Preservation Orders (TPO's) or Conservation Area status does not form part of this assessment.



5.0 Assessment Results

5.1 Designated Sites and Local Conservation Initiatives

The site is not located within a designated site of nature conservation importance. There are, however, three designated sites of nature conservation importance within a 1 km radius of the site. These are listed below:

- Swanpool SSSI and Swanpool Local Nature Reserve (LNR), which overlaps the SSSI site and extends very slightly further north-west, are located c. 10m and 302m southeast of the site respectively. The SSSI and LNR are designated for the brackish lake habitat (Annex I habitat – Coastal Lagoons), as well as wet woodland and reedbed habitats, and for the presence of the rare colonial bryozoan species Trembling Sea-mat (*Victorella Pavida*), which is only found in this one location across the UK.
- Falmouth Bay to St Austell Bay Special Protection Area (SPA) is located c. 1000m south-east of the site. The SPA is designated for its Annex II species: black throated loon (*Gavia arctica*), common loon (*Gavia immer*) and horned grebe (*Podiceps auratus*).

In addition, the Fal & Helford Special Area of Conservation (SAC) is located in excess of 1000m southeast of the site, and was, therefore, not picked up in the ERCCIS desk study. The SAC is designated for its Annex I habitats: sandbanks which are slightly covered by seawater all the time; mudflats and sandflats not covered by seawater at low tide; large shallow inlets and bays; and Atlantic salt meadows; and the Annex II species: Shore dock (*Rumex rupestris*).

The stream running through the site feeds directly into Swanpool SSSI & LNR. In the absence of mitigation, construction of a pedestrian link within the site has some potential to adversely impact Swanpool SSSI and LNR.

The proposed development site is considered to be sufficiently distant and of a sufficiently small scale that proposed constructional activities and subsequent operational use are unlikely to negatively impact Falmouth Bay to St Austell Bay SPA and Fal & Helford SAC. The Fal and Helford SAC is considered to be vulnerable to recreational pressure; however, the proposed walkway is considered unlikely to increase recreational impacts upon the SAC compared to current levels.

5.2 Phase 1 Habitat Distribution

A total of two Phase 1 Habitats were recorded within the survey area during the Phase 1 Habitat Survey: Broad-leaved semi-natural woodland (referred to as wet woodland from this point forward) (A1) and stream (G1) (see Map 1a-b above for the Phase 1 Habitat Distribution) (Figures 1 - 4). An integral part of wet woodland habitat is temporary and permanent standing water; these features are target noted on Map 1a-b but are classified under wet woodland as opposed to standing water (G2). **Of the habitats on-site, both wet woodland (A1) and stream (G1) are considered to be of significant ecological value.**

The assemblage of vascular plant species associated with each habitat including Latin names is provided in the table at Appendix 2; only habitats supporting vegetation are included in this list. A description of notable habitats and species is provided below.



Figure 1: View northwest through a drier part of wet woodland habitat.



Figure 2. View southeast over wetter parts of wet woodland habitat.



Figure 3: View south over stream.



Figure 4: Disused mammal burrow beneath tree trunk, narrowing to a maximum diameter of 18cm.

5.3 Notable Habitats

Broad-Leaved Semi-Natural Woodland / Wet Woodland (A1)

The site comprises a block of wet woodland (Prislow Woods) (Figs 1 – 3), which connects to Swanpool Local Nature Reserve (also supporting wet woodland). Woody vegetation is typified by dominant grey willow; frequent hazel, hawthorn and myrtle (non-native environmental weed); occasional cherry laurel (non-native environmental weed), English elm, ash, holly and alder; and locally frequent elder, sycamore, downy birch, bramble, beech, buddleja (non-native environmental weed) and English oak. English oak, sycamore, elm and beech occur in drier parts of the woodland, which



are typically associated with higher ground, whilst grey willow, alder, hazel and downy birch occur in wetter areas. Understory and ground floor are typified by frequent pendulous sedge, water figwort, lady fern, male fern, wood avens, hart's tongue fern, enchanted nightshade and herb-robert; occasional skunk cabbage (non-native environmental weed) willowherb species, common nettle, wavy bittercress and broad-leaved dock; and locally frequent old man's beard, hedge bindweed, hemlock water-dropwort, creeping buttercup, montbretia (Sch. 9 WCA, 1981 invasive plant) and sedge species.

Wet woodland habitat likely qualifies as a UK BAP Priority Habitat and Section 41 NERC Act (2006) Habitat of Principle Importance.

Wet woodland habitat provides potential habitat for a range of species, notably roosting, foraging and commuting bats, nesting birds, otter, badger, hedgehog, reptiles and amphibians, and is considered to be of '**Parish Value**'.

The site currently supports a network of unofficial paths. Installation of a formal pedestrian route comprising a boardwalk will largely utilise an existing footpath through the site and will reduce/eliminate use of other unofficial paths. Installation of a formal pedestrian route will require some pruning/ felling of existing grey willow trees but will not require loss of wet woodland habitat.

In the absence of mitigation, **creation of a pedestrian route through wet woodland habitat is predicted to have a short-term negative impact of unlikely occurrence, of minor significance on a local scale.** Due to on-going degradation associated with use of a network of informal footpaths, and the presence of Sch. 9 WCA (1981) invasive plant species and environmental weeds, there is opportunity to enhance the site for biodiversity.

Measures to mitigate the proposals and enhance the site for biodiversity are provided in Section 6 below. See Section 6.2 below for mitigation measures.

Stream:

A small stream (Fig 3) enclosed by wet woodland runs through the site. Vegetation along the stream margins is as described for wet woodland above. The stream feeds into Swanpool Local Nature Reserve and, in turn, Swanpool SSSI.

Stream and marginal vegetation provide potential habitat for amphibians, reptiles, otter, invertebrates and commuting and foraging bat species. This habitat is considered to be of '**Parish Value**'.

The proposed boardwalk will cross the stream in two locations, but no loss of stream habitat will occur as a result. A small, dilapidated bridge is already present in one of these locations. Impacts will, therefore, be confined to those that result from temporary disturbance of the stream bank and adjacent wet woodland during installation of the boardwalk.

In the absence of mitigation, **installation of a boardwalk over the stream is predicted to have a short-term negative impact of unlikely occurrence, of minor significance on a local scale.**

See Section 6.2 below for mitigation measures.



5.4 Notable Species

Notable species and species groups with potential to use the site are described below:

Badger

There are twelve records for badger (*Meles meles*) within 1km of the site (ERCCIS, 2020); this indicates that badgers are present within the area and may use the site on occasion. A single mammal burrow (Fig. 4) was observed beneath the trunk of a tree (Target Note 2, Map 1a-b) but this appears to be disused as indicated by the thick carpet of leaves, twigs and cobwebs, and it narrows to a maximum diameter of c. 18cm, which is considered too narrow for badger. No badger setts were recorded on-site or within 30m of the site boundary (where access was available) but a badger footprint was observed on the riverbank (Target Note 7; Map 1a-b) illustrating that badger do use the site. Whilst vegetation is dense and could, therefore, easily conceal a badger sett, the ground is wet and unlikely to be suitable for badger setts.

The site provides likely foraging habitat for badger, a common and widespread species in the UK. Installation of a formal pedestrian route is unlikely to adversely impact badger using the site because it will comprise a relatively small area and will likely alleviate recreational pressure on other parts of the site (i.e. reduce use of the network of informal footpaths).

Although widespread and common in Cornwall, badgers and their setts are legally protected under the Protection of Badgers Act 1992 (HM Government, 1992) (see Appendix 3).

The site is considered to be of '**Local Value**' for badger.

Construction activities have potential to disturb or harm individual animals and disrupt foraging activities. The nature of the identified impacts on badger is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance**.

See section 6.3 for mitigation recommendations.

Bats (Commuting and Foraging)

The ERCCIS desk study revealed fifty two records for seven bat species within 1km of the site. These comprise one record for brown long-eared bat (*Plecotus auritus*); four records for soprano pipistrelle (*Pipistrellus pygmaeus*); ten records for lesser horseshoe bat (*Rhinolophus hipposideros*); two records for Nathusius's Pipistrelle (*Pipistrellus nathusii*); one record for noctule bat (*Nyctalus noctula*); and one record for long-eared bat species (*Plecotus spp.*) (European Protected Species, EPS; Cornwall Red Data Book, CRDB; S41 NERC Act, 2006); nineteen records for common pipistrelle bat (*Pipistrellus pipistrellus*); one record for whiskered bat (*Myotis mystacinus*); one record for whiskered/ brandt's bat (*Myotis mystacinus/brandtii*); twelve records for bat species (*Chiroptera*) (EPS). Wet woodland and stream habitat on-site likely support foraging and commuting bats. However, the installation of a pedestrian boardwalk by hand is highly unlikely to adversely impact foraging and commuting bats. In accordance with the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016) the site is assessed as being of 'moderate suitability' for bats, but, due to the minor nature of the proposals, further activity surveys for bats are not recommended.

In the UK, all bat species are European Protected Species (EPS) protected under both UK and European Legislation; for further information on legal protection see Appendix 3.

The site is considered to be of '**Local Value**' for foraging and commuting bats.



The nature of the identified impacts on foraging and commuting bat species is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.**

See section 6.3 for mitigation recommendations.

Bats (Roosting)

A small number of trees supporting features with potential to support roosting bats were observed within 7m of the proposed pedestrian route (Map 1a-b). These include two sycamore trees (Target Notes 4 and 11; Map 1a-b); one grey willow (Target Note 6; Map 1a-b); one holly (Target Note 12; Map 1a-b); and one alder (Target Note 13; Map 1a-b). None of these trees will be lost or pruned to facilitate installation of the boardwalk and it is considered highly unlikely that any bats roosting within these trees (if present) will be disturbed during construction of the boardwalk. No further surveys are required to inform the planning application.

The site is considered to be of likely '**Local Value**' for roosting bat but detailed bat roost surveys have not been undertaken because the proposals are unlikely to impact roosting bats.

The nature of the identified impacts on roosting bat species is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.**

No further bat surveys are recommended; precautionary measures are provided in Section 6.3 below.

Dormouse

The hazel dormouse occurs within woodland, hedgerows and scrub habitats. On-site, wet woodland provides suitable habitat for dormouse, but the ERCCIS desk study revealed no records for dormouse within a 1km radius of the site. Furthermore, the author is not aware of any records for dormouse southwest of Truro. Dormice are considered likely to be absent from the local area.

The hazel dormouse is a European Protected Species (EPS) protected under both European and UK Legislation; see Appendix 3 for further information on legal protection in the UK. Dormice and their nests are legally protected under the Conservation Regulations 2010 (see Appendix 3); they are also UK and Cornwall BAP priority species for conservation (see Appendix 3).

The site is considered to be of **negligible value** for dormouse.

The proposed development is unlikely to impact dormouse due to the likely absence of this species from the site. Precautionary measures are provided in Section 6.3 below.

Otter

There are two records for otter (*Lutra lutra*) (EPS; UK BAP priority species/ Section 41 NERC Act (2006)) within a 1km radius of the site (ERCCIS 2019). Otter occupy linear home ranges that incorporate watercourses and standing water bodies. Watercourses and standing water bodies that support abundant fish and amphibian species are particularly important because these species groups are the dominant dietary component for otter. The site comprises wet woodland and a stream, which provide highly suitable habitat for otter. A single mammal burrow (Fig. 4) was observed beneath the trunk of a tree (Target Note 2, Map 1a-b) but it appears to be disused as indicated by the presence of cobwebs, thick leaf litter and twigs and narrows to c. 18cm, which is considered too narrow for otter.



Overall, the site is considered to be of '**Local Value**' for otter.

Construction activities have potential to disturb or harm individual animals. The nature of the identified impacts on otter is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.**

See section 6.3 for mitigation recommendations.

Hedgehog

Wet woodland and associated stream habitat on-site provide potentially suitable foraging, resting and hibernation sites for hedgehog. The ERCCIS desk study revealed forty seven records for hedgehog (*Erinaceus europaeus*) (UK BAP priority species/ NERC Section 41 (2006) species of principle importance) within 1km of the site.

The site is considered to be of '**Local Value**' for hedgehog (if present).

Construction of a boardwalk has potential to disturb and/ or harm hedgehog (if present).

The nature of the identified impacts on hedgehog is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.**

See Section 6.3 for mitigation recommendations.

Reptiles and Amphibians

The ERCCIS desk study revealed fifty seven records for slow worm (*Anguis fragilis*) and one record for common lizard (*Zootoca vivipara*) (UK BAP priority species/ NERC Section 41 (2006) species of principle importance; Schedule 5 Wildlife & Countryside (WCA)) within a 1km radius of the site.

Reptiles: slowworm, adder (*Vipera berus*), common lizard and grass snake (*Natrix natrix*), the four commonly occurring reptile species in the UK, are protected under Schedule 5 of the WCA (1981, as amended); see Appendix 3 for further details of legal protection.

Suitable habitat for reptiles, notably grass snake, is present within wet woodland habitat, which supports temporary and permanent standing water. The other reptile species tend to have habitat requirements that are unlikely to be met by the conditions on-site. These species are unlikely to be present. Whilst habitat on-site has potential to support reptiles, notably grass snake, further surveys for reptiles are not recommended due to the minor nature of the proposals.

The site is considered to be of '**Local Value**' for reptiles (if present).

Temporary habitat degradation, incurred as a result of installation of the boardwalk, has some potential to negatively impact local reptile populations and cause harm to individual animals.

The nature of the identified impacts on reptile species is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.**

See section 6.3 for mitigation recommendations.

Habitat on-site also has potential to support the commonly occurring amphibian species. The ERCCIS desk study revealed one hundred and sixty seven records for common toad (*Bufo bufo*), sixteen records for common frog and seventy three records for palmate newt (*Lissotriton helveticus*) within 1km of the site. Wet woodland habitat on-site supports temporary and permanent standing water,



which amphibian species are likely to use. The location of the proposed boardwalk has been selected to avoid standing water bodies; furthermore, the boardwalk will be installed by hand and is unlikely to adversely impact any amphibian species present.

The site is considered to be of '**Local Value**' for amphibian species (if present).

Temporary habitat degradation, incurred as a result of installation of the boardwalk, has some potential to negatively impact local amphibian populations and cause harm to individual animals.

The nature of the identified impacts on amphibian species is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of negligible significance**.

See section 6.3 for mitigation recommendations.

Birds

A large number of bird species have been recorded within a 1km radius of the site. Of the species recorded, eighty have potential to use the site on occasion. On-site, wet woodland habitat provides suitable nest sites for a range of species. Species of conservation significance recorded within a 1km radius of the site, and with potential to breed within habitat on-site, are as follows: starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), song thrush (*Turdus philomelos*) (RSPB Red List; UK BAP/ Section 41 NERC Act 2006), hedge sparrow (*Prunella modularis*) and bullfinch (*Pyrrhula pyrrhula*) (RSPB Amber List; UK BAP priority species/ Section 41 NERC Act 2006).

All birds are legally protected whilst nesting under the WCA (1981, as amended).

The site is considered to be of '**Local Value**' for birds.

Construction and operational use of the boardwalk has some limited potential to disturb and/ or harm nesting, foraging and resting bird species.

The nature of the identified impacts on bird species is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance**.

Mitigation recommendations are provided in section 4.3.

Invertebrates

The ERCCIS desk study revealed many records for a large number of invertebrate species of conservation significance within a 1km radius of the site (see Appendix 4). Wet woodland and stream habitat are typically associated with some diverse and important invertebrate assemblages including many species of conservation significance. However, the construction and operation use of a boardwalk as proposed is unlikely to adversely impact the habitats and invertebrate assemblage present. A full appraisal of the value of the site for invertebrates is outside the scope of this report and is not recommended due to the minor nature of the proposals.

The site is considered to be of '**Parish Value**' for invertebrate species.

Construction of a boardwalk has potential to harm and disturb individuals but is unlikely to adversely impact populations. The nature of the identified impacts on invertebrates is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance**.



Vascular Plants

A total of 41 vascular plant species were recorded on-site within wet woodland habitat (see Appendix 2). This is in line with the number of species that would be expected at a site of this size and character. One species of conservation significance was recorded on-site: Lanceolate spleenwort (*Asplenium obovatum*) is listed in the RDB for Cornwall and the Isles of Scilly, and as Near Threatened. The location of this species within the site is shown by Target Note 3, Map 1a-b.

The ERCCIS desk study revealed records for 15 species of conservation significance within 1km of the site. Of these, five have some potential to occur on-site; these species are described below:

- Bluebell (*Hyacinthoides nonscripta*) is protected under Schedule 8 WCA (1981). This species can occur in wet woodland but would not have been visible in September.
- Field woundwort (*Stachys arvensis*) is listed in the RDB for Cornwall and the Isles of Scilly, and as Near Threatened. This species was not observed during the extended Phase 1 Habitat Survey but has potential to occur within wet woodland habitat.
- Wavy St John's-Wort (*Hypericum undulatum*) is listed in the RDB for Cornwall and the Isles of Scilly, and as Near Threatened. This species was not observed during the extended Phase 1 Habitat Survey but has potential to occur within wet woodland habitat.
- Round-leaved mint (*Mentha suaveolens*) is listed in the RDB, and as Near Threatened. This species was not observed during the extended Phase 1 Habitat Survey but has potential to occur within wet woodland habitat.
- Cornish moneywort (*Sibthorpia europaea*) is listed in the RDB for Cornwall and the Isles of Scilly, and as Near Threatened. This species was not observed during the extended Phase 1 Habitat Survey but has potential to occur within wet woodland habitat.

The site is considered to be of '**Local Value**' for vascular plants.

Construction and operational use of the boardwalk has some limited potential to impact notable plant species as a result of direct disturbance.

The nature of the identified impacts on vascular plant species is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.**

Follow mitigation for habitats in Section 6.2 below.

Invasive Plants

In the UK a number of 'invasive plant species' are listed on Schedule 9 of the WCA (1981, as amended) making it an offence to cause them to spread to the wild. The ERCCIS desk study revealed records for the following Schedule 9 invasive plant species within a 1km radius of the site: Three-cornered garlic (*Allium triquetrum*), hottentot-fig (*Carpobrotus edulis*), New Zealand Pigmyweed (*Crassula helmsii*), Canadian waterweed (*Elodea canadensis*), Japanese knotweed (*Fallopia japonica*), wall cotoneaster (*Cotoneaster horizontalis*), Himalayan cotoneaster (*Cotoneaster simonsii*), montbretia, Himalayan balsam (*Impatiens glandulifera*), curly water weed (*Lagarosiphon major*), parrot's feature (*Myriophyllum aquaticum*), variegated yellow archangel (*Lamium galeobdolon sub sp. argentatum*), and rhododendron (*Rhododendron ponticum*). One invasive plant species was observed on-site during the Extended Phase 1 Habitat Survey: montbretia. The location of this species is shown on by Target Note 14, Map 1a-b above.



The ERCCIS desk study also revealed records for a number of invasive species/ environmental weeds that are not listed on Schedule 9 WCA (1981) with potential to occur on site. These include buddleja (*Buddleja davidii*), false acacia (*Robinia pseudoacacia*), winter heliotrope (*Petasites fragrans*), American skunk cabbage, Japanese honeysuckle (*Lonicera japonica*), Himalayan honeysuckle (*Leycesteria formosa*), Spanish bluebell (*Hyacinthoides hispanica*), large-flowered waterweed (*Egeria densa*) and pampas grass (*Cortaderia selloana*). Of these, winter heliotrope (Target Note 1, Map 1a-b), American skunk cabbage (Target Note 16, Map 1a-b) and buddleja were observed on site. Myrtle, a notoriously weedy species, was also widely distributed across the site, along with cherry laurel (Target Note 15, Map 1a-b).

In the absence of mitigation, the proposals have potential to cause Schedule 9 WCA (1981) invasive plant species and invasive plants not listed on Schedule 9 WCA (1981) to spread throughout the site, which would be classed as 'the wild' and would, therefore, be an offence under Schedule 9 WCA (1981). However, construction of the pedestrian route presents an opportunity to eradicate these species from the site and prevent further invasive plant introductions to the wild off-site.

See Section 6.3 for mitigation recommendations.

Non-Vascular Plants

A specialised survey for non-vascular plants, bryophytes and lichens, was outside the scope of this study. Incidental observations of *Pellia epiphylla* (liverwort species) were noted in wet areas of the wet woodland and along the banks of the stream.

The desk study revealed a number of records for lower plant species within a 1km radius of the site (Appendix 4). One species of conservation importance with some potential to occur on site is detailed below:

Fissidens crispus (CRDB) (moss species) – occurs on shaded, wet ground within wet woodland.

Overall, the site lacks those features such as metalliferous mining waste with potential to support the most diverse assemblages of lower plant species of conservation significance.

The site is considered to be of '**Local Value**' for lower plants.

Construction and operational use of the boardwalk has some limited potential to impact notable lower plant species as a result of direct disturbance.

The nature of the identified impacts on lower vascular plant species is considered to be **short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance**.

Follow mitigation for habitats in Section 6.2 below.



6.0 Mitigation Recommendations

Recommendations are provided using the Mitigation Hierarchy in accordance with BS42020-2013 (British Standard, 2013). The Mitigation Hierarchy seeks to avoid impacts, then to mitigate unavoidable impacts, and, as a last resort, to compensate for residual impacts that remain after implementation of avoidance and mitigation measures. The avoidance, mitigation, compensation and enhancement measures are detailed on the Ecological Constraints and Opportunities Plan, which accompanies the Non-Technical Summary (Section 1.0).

6.1 Designated Sites

The on-site stream feeds directly into Swanpool SSSI & LNR. Mitigation recommendations are detailed below.

- **Designated Sites:** Works within the vicinity of a watercourse require 'Ordinary Watercourse Consent' from the Environment Agency (EA). <https://www.gov.uk/permission-work-on-river-flood-sea-defence>. Sensitive working practices to be implemented in accordance with Environment Agency's withdrawn Pollution Prevention Guidelines https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/485199/pmho1107bnkg-e-e.pdf.

6.2 Habitats

Of the habitats within the site, wet woodland and stream are considered to be of significant ecological value. Mitigation recommendations are detailed below.

- **Stream:** Follow recommendations for Designated Sites above.
- **Wet woodland:** Construction of a boardwalk will require felling and pruning of a number of trees, most of which are grey willow. Follow BS5837: 2012 Trees in relation to design, demolition and construction, and the recommendations within the detailed arboricultural survey report. Installation of the boardwalk will, however, not result in a loss of wet woodland habitat because the boardwalk will largely be constructed over the existing network of paths, which vary in use; some are well worn, while others are not. Installation of a formal pedestrian route will likely reduce use of the wider network of unofficial paths and recreational pressure on the wider site. Supplementary planting of native species including thorny species such as hawthorn in the vicinity of the network of unofficial paths will likely deter use, and result in a net gain of woodland habitat. **NB:** the loss and gain of wet woodland habitat resulting from the installation of a boardwalk is too small to quantify using the DEFRA Biodiversity Metric 2.0.
- There are range of opportunities to enhance wet woodland habitat for biodiversity. See section 6.4 below.

6.3 Species

Development of the site has potential to impact: badger, otter, hedgehog, reptile and amphibian species, breeding birds, and bats (foraging and commuting); impact on these species/ species will be avoided and/or mitigated by following the recommendations detailed below.

- **Badger, otter and hedgehog:** All excavated pits associated with the proposed development must be covered overnight and all trenches must have sloping planks (no



greater than 45° angle) placed in them as a means of escape so that animals will not become trapped.

All fences (temporary and permanent) must have a minimum 25cm x 25cm gap below to permit movement of faunal species.

- No further surveys are required to inform the planning application but a pre-construction walkover survey to check for badger setts and otter resting places is required. The otter is a European Protected Species (EPS) protected under both European and UK Legislation. In the unlikely event that an otter resting place is uncovered during removal of vegetation, works must stop (as soon as it is safe to do so) and advice sought from Natural England (NE). It may be necessary to obtain an EPS mitigation licence from NE prior to resuming works. In the event that a badger sett is uncovered, and works associated with installation of the boardwalk will disturb badger whilst occupying a sett, then a NE badger disturbance licence would be required to allow works to continue.
- **Bats (forging and commuting):** In accordance with the Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016) the site is assessed as being of 'moderate suitability' for bats. Further surveys are not recommended due to the minor nature of the proposals.
- **Bats (roosting):** Several trees within the vicinity of the proposed pedestrian route have potential to support roosting bats (Map 1a-b) but none are to be pruned or felled. No further surveys are required to inform the planning application but a pre-construction walkover survey to check trees for roosting bats is required. A precautionary approach should be adopted during felling and pruning of trees. The arboricultural contractors should be made aware that bats can roost unseen deep within tree cavities. Trees should be felled in sections and lowered gently to the ground (if possible). Once felled, each felled section should be piled up carefully and left in situ for 24 hrs before chipping to allow any bats present to disperse. NB: retention of felled wood in log piles is recommended, though some chipping will be likely be required. If a bat/s is discovered, the bat must not be handled, and works must stop immediately. Advice must be sort from an experience bat ecologist (Plan for Ecology: 01326 218839) or Natural England (tel: 01872 245045).
- **Birds (and Dormouse):** Undertake any clearance/ pruning of vegetation or trees during the winter months (October – February inclusive) to avoid the bird nesting season and when any dormice present (likely absent) will be hibernating at ground level. Alternatively precede vegetation clearance with a thorough search of vegetation for nesting birds / dormouse (to be undertaken by an ecologist). If an active bird nest is uncovered, then works within 5m of the nest must stop until nesting activity has ceased. Works are most likely to be delayed between April and July. The hazel dormouse is a European Protected Species (EPS) protected under both European and UK Legislation. In the unlikely event that a dormouse is uncovered during removal of vegetation, works must stop (as soon as it is safe to do so) and advice sought from Natural England (NE). It may be necessary to obtain an EPS mitigation licence from NE prior to resuming works.
- **Reptiles and amphibians:** Due to the minor nature of the proposals, further surveys for reptiles are not recommended. Instead, reptiles (and amphibians) should be assumed to be present. Cut vegetation (already quite sparse due to network of unofficial paths) along the proposed pedestrian route to 200mm above ground level during the winter (when birds will not be nesting) and undertake excavation works during spring/ summer (April – September/ early October) when reptiles and amphibians will be active; this will enable



any reptiles/ amphibians present to move away from the disturbance. Works outside of this period must be carried out under an ecological watching brief.

- **Invasive plants:** Montbretia is present within the site. This species is listed on Schedule 9 WCA 1981 making it an offence to cause it to spread to the wild. In addition, a number of invasive plant species that are not listed on Schedule 9 WCA (1981) are present on site: winter heliotrope (Target Note 1, Map 1a-b), American skunk cabbage (Target Note 16, Map 1a-b) and buddleja were observed on site. Myrtle, a notoriously weedy species, was also widely distributed across the site, along with cherry laurel (Target Note 15, Map 1a-b). Development of the site must be informed with an invasive plant method statement to include a pre-construction survey to map all invasive plant stands. There is opportunity to enhance the biodiversity value of the site by eradicating invasive plant species (See Section 6.4).

6.4 Biodiversity Enhancements

There is an opportunity to incorporate the following biodiversity enhancements:

- Remove sycamore trees with a trunk diameter of less than 150mm. This species is not a native wet woodland species and would be better replaced by grey willow, alder or hazel.
- Remove invasive, non-native cherry laurel and myrtle from the site.
- Eradicate montbretia (Sch. 9 WCA 1981), winter heliotrope (Target Note 1, Map 1a-b), American skunk cabbage (Target Note 16, Map 1a-b) and buddleja. Development of the site must be informed with an invasive plant method statement to include a pre-construction survey to map all invasive plant stands. Suitable control methodologies will be provided in the invasive plant method statement.
- Augment woodland with supplementary planting of hazel, birch, hawthorn and holly within drier parts of the site, notably within the vicinity of the network of unofficial paths. The aim being to reduce use of unofficial paths and thereby alleviate recreational impacts on wet woodland habitat.
- Permanent standing water is located in the southeast corner of the site; some careful pruning of trees and shrubs in this location will increase light reaching the pond, which will likely enhance its value for biodiversity.
- There is opportunity to enhance the site for roosting bats by installing bat boxes within on-site trees. A suitable product is the 1FF Schwegler bat box.
- There is opportunity to enhance the site for nesting birds by installing bird boxes within on-site trees. Suitable products include 1SP Schwegler sparrow terrace and 1MR Schwegler Avianex.
- Maximize the value of the site for invertebrates, amphibians, reptiles and hedgehog by providing piles of deadwood from felled/ pruned trees.

6.5 Further surveys

No further surveys are required to inform the planning application.



6.6 Monitoring

Ecological monitoring of the site is not recommended.

7.0 Impact Assessment

Table 2: Assessment of Impact of the proposed development on features of ecological importance before and after mitigation.

Feature	Characterisation of unmitigated impact	Effect without mitigation	Significance of effect of residual impact after mitigation
Hedgerow	Loss Degradation (construction and operational)	Long-term negative impact of probable occurrence, of minor significance on a Local Scale.	Neutral
Stream and marginal vegetation	Degradation (construction and operational)	Long-term negative impact of probable occurrence, of minor significance on a Local Scale.	Neutral
Badger	Construction activities have potential to disturb or harm individual animals (trap individual animals within excavated pits/ trenches) and disrupt foraging activities.	Short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.	Neutral
Otter	Construction activities have potential to disturb or harm individual animals (trap individual animals within excavated pits/ trenches) and disrupt foraging activities.	Short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.	Neutral
Bats (roosting, foraging and commuting)	Hedgerow loss has potential to impact foraging and commuting bats. New bat roost features to be incorporated.	Long-term in duration of unlikely occurrence, negative within the Zone of Influence and of minor significance.	Neutral-positive
Hedgehog	Development of the site has potential to disturb and/ or harm hedgehog (if present). New log and stone piles.	Short-term in duration of unlikely occurrence, negative within the Zone of Influence and of minor significance.	Neutral-positive
Birds	The proposed development has potential to disturb and/ or harm nesting, foraging and resting bird species.	Short-term in duration of unlikely occurrence, negative within the Zone of Influence and of minor significance.	Neutral-positive
Reptiles & Amphibians	Loss of or degradation of suitable habitat (construction and operational)	Short-term in duration of unlikely occurrence, negative within the Zone of Influence and of minor significance.	Neutral-positive



Feature	Characterisation of unmitigated impact	Effect without mitigation	Significance of effect of residual impact after mitigation
	Harm or disturbance to individual animals (construction)		
Invertebrates	Loss of or degradation of suitable habitat (construction and operational) Harm or disturbance to individual animals (construction)	Short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.	Neutral-positive
Vascular plants	Loss or degradation of habitats (construction and operational)	Short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance.	Positive
Non-vascular plants	Loss or degradation of habitats (construction and operational)	Short-term in duration, of unlikely occurrence, negative within the Zone of Influence and of negligible significance.	Neutral

7.1 Residual Impacts

The residual impact of the proposed construction of a pedestrian boardwalk is considered likely to have a neutral to positive impact, at a local scale, on the ecology of the site, subject to the successful implementation of the mitigation outlined in this report. The proposals will likely result in a net gain in wet woodland habitat by reducing recreational pressure on the existing network of unofficial footpaths, allowing these areas to recover with the aid of additional supplementary planting. **NB:** the loss and gain of wet habitat resulting from the installation of a boardwalk is too small to quantify using the DEFRA Biodiversity Metric 2.0.



8.0 References

- Baker, J., Hoskin, R. and Butterworth, T. (2019) Biodiversity Net Gain. Good Practice Principles for Development. A Practical Guide. CIRIA, 2019. ISBN: 978-0-86017-791-3.
- BSI (British Standards) (2005) BS 5837:2005 Trees in relation to Construction. BSI.
- BSI (2013) BS 42020: 2013 Biodiversity: Code of Practice for Planning and Development. BSI.
- Bright et al., (2006) Dormouse Conservation Handbook. English Nature (now Natural England).
- CBI (2010) Cornwall's Biodiversity Action Plan Volume 4: Priority Projects. Cornwall Wildlife Trust, Truro.
- CBI (2004) Cornwall's Biodiversity Volume 3: 2004 Action Plans. Cornwall Wildlife Trust, Truro.
- CBI (1998) Cornwall's Biodiversity Volume 2: Action Plans. Cornwall Wildlife Trust, Truro.
- CBI (1997) Cornwall's Biodiversity Volume 1: Audit and Priorities. Cornwall Wildlife Trust, Truro.
- Cheffings C.M. & Farrell L. (2005) The Vascular Plant Red Data List for Great Britain. Species Status 7: 1-116. JNCC, Peterborough.
- Church J. M. Hodgetts N.G. Preston C. D. & Stewart N. F. (2004). British Red Data Books: Mosses and Liverworts. JNCC, Peterborough.
- Church J. M. Coppins B. J. Gilbert O. L. James P. W. & Stewart N. F. (1996) British Red Data Books: Lichens. JNCC, Peterborough.
- CIEEM [Chartered Institute of Ecology and Environmental Management (2018) Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland. CIEEM.
- CIEEM [Chartered Institute of Ecology and Environmental Management (revised 2017) Guidelines for Preliminary Ecological Appraisal. 2nd Edition. CIEEM.
- CISBFR [Cornwall and the Isles of Scilly Federation of Biological Recorders] (2009) Red Data Book for Cornwall and the Isles of Scilly 2nd edition. Croceago Press, Praze-an-Beeble
- Collins, J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.
- Cornwall Council (2016) Cornwall Local Plan Strategic Policies 2010-2030. Cornwall Council. Truro.
- Cornwall Council (2018) Cornwall Planning for Biodiversity Guide. Cornwall Council. Truro.
- Cornwall Wildlife Trust [CWT] (2007) Biodiversity and Geological Conservation: Planning Good Practice Guidance for Cornwall. CWT.
- European Commission (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora. European Commission.
- European Commission (2009a) Directive 2009/147/EC on the conservation of wild birds. European Commission.



Environment Agency (2007) Works in, near or over watercourses, PPG5: prevent pollution (withdrawn 14th December 2015 but not replaced). Environment Agency.

ERCCIS [Environmental Records Centre for Cornwall and the Isles of Scilly] (to 2019) Erecords computer database. Cornwall Wildlife Trust. Unpublished.

HM Government (1981 as amended) The Wildlife and Countryside Act 1981. HMSO, London.

HM Government (1992) Protection of Badgers Act 1992. HMSO, London.

HM Government (1981 as amended) The Wildlife and Countryside Act 1981 (as amended). HMSO, London.

HM Government (1997) Statutory Instrument 1997 No.1160. The Hedgerow Regulations 1997. HMSO, London.

HM Government (2000) The Countryside and Rights of Way Act 2000. HMSO, London.

HM Government (2006) The Natural Environment and Rural Communities Act 2006. HMSO, London.

HM Government (2010) The Conservation of Habitats and Species Regulations 2010. HMSO, London.

Gent A.H. & Gibson S.D. (1998) Herpetofauna Worker's Manual. JNCC, Peterborough.

JNCC [Joint Nature Conservation Committee] (2011) UK BAP Priority Species and Habitats. Available at: <http://jncc.defra.gov.uk>.

JNCC (2011) Species Status Assessment Project. Available at: <http://jncc.defra.gov.uk>.

JNCC (2010) Handbook for Phase 1 Habitat Survey - A Technique for Environmental Audit. ISBN 0 86139 636 7.

Ministry of Housing, Communities and Local Government (2018) National Planning Policy Framework
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf

Natural England Advice Note (2015) <https://www.gov.uk/guidance/hazel-or-common-dormice-surveys-and-mitigation-for-development-projects>

Natural England (2015) www.gov.uk/guidance/reptiles-protection-surveys-and-licences

ODPM [Office of the Deputy Prime Minister] (2005) Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

Poland J. & Clement E. (2009) The Vegetative Key to the British Flora. Poland & BSBIO, Southampton.

Preston C. D. Pearman D. A. & Dines T. D. (2002) New Atlas of the British and Irish Flora. Oxford Unity Press Inc., New York

Ratcliffe, D. (2009) A Nature Conservation Review. Cambridge University Press. Cambridge.



Stace C. (2010) New Flora of the British Isles – Third edition. Cambridge University Press, Cambridge.

Wiggington M.J. (1999) British Red Data Book. Vascular Plants. 3rd Edition. JNCC, Peterborough.



9.0 Appendix 1: Location of Site and Designated Sites of Nature Conservation Importance.

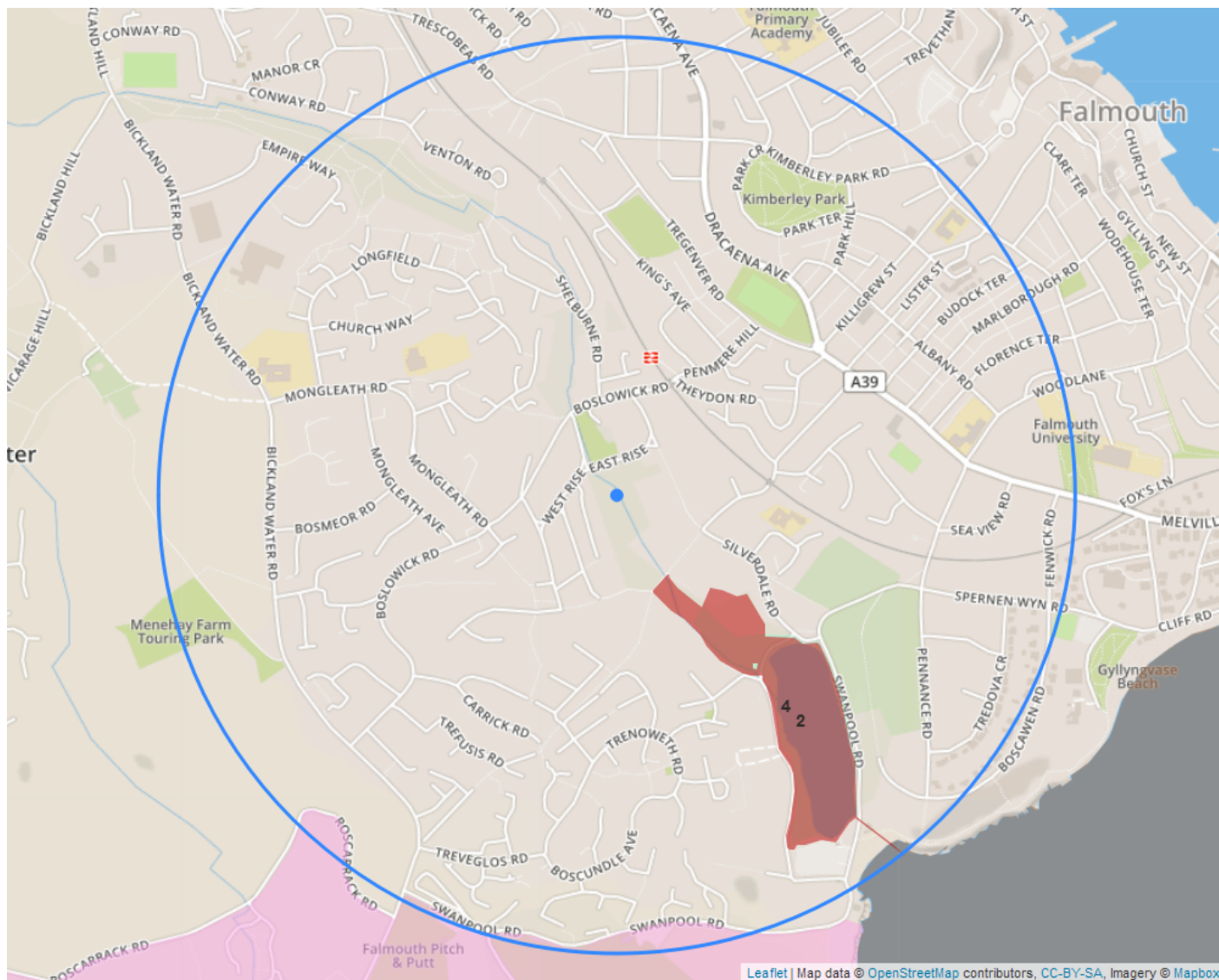
Statutory Sites within the search area

Statutory sites are those given level protection aimed at preventing activities that may damage features of interest. Further details can be found in the ERCCIS report summary .pdf or from Natural England and The National Association for Areas of Outstanding Natural Beauty.





Contains public sector information licensed under the Open Government License v3.0. & contains OS data Crown copyright and database rights 2019.

Site Type	Site Code	Site Name	Hyperlink	Site Area (ha)
AONB	AONB2	Cornwall AONB	http://www.cornwall-aonb.gov.uk/	91,309.19
LNR	SW801315	Swanpool	https://www.orks.org.uk/sites/default/files/EDS_Links/LNRs/Swanpool%20LNR.pdf	7.16
SPA	UK9020323	Falmouth Bay to St Austell Bay	https://www.orks.org.uk/sites/default/files/EDS_Links/SPAs/Falmouth%20Bay%20to%20St%20Austell%20Bay%20SPA.pdf	25,891.06
SSSI	1000976	Swanpool	https://www.orks.org.uk/sites/default/files/EDS_Links/SSSIs/Swanpool%20SSSI.pdf	9.05

Statutory Sites Map



© Crown copyright and database rights 2020 OS 100049047.

Location	Site Code	Colour
1	AONB2	
2	SW801315	
3	UK9020323	
4	1000976	



10.0 Appendix 2: Phase 1 Habitat Plant List

Latin Name	Common Name	Wet Woodland (A1) including stream (G1)
<i>Acer pseudoplatanus</i>	Sycamore	LF
<i>Alnus glutinosa</i>	Alder	O
<i>Angelica sylvestris</i>	Wild angelica	LF
<i>Asplenium obovatum</i>	Lanceolot spleenwort	R
<i>Athyrium filix-femina</i>	Lady fern	F
<i>Betula pubescens</i>	Downy birch	LF
<i>Buddleja davidii</i>	Buddleja	LF
<i>Lysichiton americanus</i>	American skunk cabbage	O
<i>Cardamine flexuosa</i>	Wavy bitter-cress	O
<i>Carex species</i>	Sedge species	LF
<i>Carex pendula</i>	Pendulous sedge	F
<i>Circaea lutetiana</i>	Enchanter's-nightshade	F
<i>Clematis vitalba</i>	Traveller's-joy	LF
<i>Convolvulus arvensis</i>	Field bindweed	LF
<i>Corylus avellana</i>	Hazel	F
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Crocsmia x crocosmiiflora</i>	Montbretia	LF
<i>Dryopteris affinis</i>	Scaly male fern	F
<i>Epilobium sp.</i>	Willowherb	O
<i>Fagus sylvatica</i>	Beech	LF
<i>Fraxinus excelsior</i>	Ash	O
<i>Geranium robertianum</i>	Herb-robert	F
<i>Geum urbanum</i>	Wood avens	F
<i>Ilex aquifolium</i>	Holly	O
<i>Ligustrum ovalifolium</i>	Garden privet	R
<i>Myrtus communis</i>	Myrtle	F
<i>Oenanthe crocata</i>	Hemlock water-dropwort	LF
<i>Petasites fragrans</i>	Winter heliotrope	LF
<i>Asplenium scolopendrium</i>	Hart's tongue	F
<i>Prunus laurocerasus</i>	Cherry laurel	O
<i>Quercus ilex</i>	Holm oak	O
<i>Quercus robur</i>	Pedunculate oak	LF
<i>Ranunculus repens</i>	Creeping buttercup	LF
<i>Rubus fruticosus agg.</i>	Blackberry/bramble	LF
<i>Rumex obtusifolius</i>	Broad-leaved dock	O
<i>Salix cinerea</i>	Grey willow	D



Latin Name	Common Name	Wet Woodland (A1) including stream (G1)
<i>Sambucus nigra</i>	Elder	LF
<i>Scrophularia auriculata</i>	Water figwort	F
<i>Ulex europaeus</i>	European gorse	R
<i>Ulmus procera</i>	English elm	O
<i>Urtica dioica</i>	Common nettle	O

DAFOR is a nominative scale where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare. L = Locally; or combination of.



11.0 Appendix 3: Legislation and Planning Policy

Legislation and Planning Policy

Protected Habitats, Species and Designated Sites

- The Conservation of Habitats and Species Regulations (HM Government, 2017) (as amended) encompasses Special Areas of Conservation (SACs) and provides additional protection for Special Protected Areas (SPA's), RAMSAR Sites and European Protected Species (EPS).
- The Countryside and Rights of Way (CROW) Act (HM Government, 2000, as amended) provides additional protection for Sites of Special Scientific Interest (SSSIs) and threatened species; under the CROW Act (2000) Local Authorities have a statutory duty to consider UK BAP priority habitats and species as part of planning applications.
- The Hedgerows Regulations (1997) protects ecologically/ historically important hedgerows.
- The Natural Environment and Rural Communities (NERC) Act (HM Government, 2006) bestows a legal duty on public authorities to conserve biodiversity. Section 41 includes a list of habitats and species of principle conservation importance.
- The Protection of Badgers Act (1992) protects badgers as specified below.
- The Wildlife and Countryside Act (HM Government 1981, as amended) encompasses the protection of wildlife (fauna and flora), SSSIs, SPAs, National Nature Reserves (NNRs) and RAMSAR Sites.

Badgers: Badgers are legally protected under the Protection of Badgers Act 1992. As a result of this statutory legislation it is an offence to:

- Purposely kill, injure or take a badger;
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett;
- Disturb a badger when occupying a sett.

Birds: In Britain the nests (whilst in use or being built) and eggs of wild birds are protected against taking, damage and destruction under the Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981).

Some species (i.e. barn owl) are also listed on Schedule 1 of the Wildlife and Countryside Act (HM Government, 1981 as amended); it is an offence to:

- Intentionally capture, injure or kill a Schedule 1 listed species;
- Intentionally or recklessly disturb a Schedule 1 listed species whilst nesting;
- Intentionally or recklessly disturb a dependent young Schedule 1 listed species.

European Protected Species (EPS) (Bat, dormouse, otter, water vole & great crested newt): EPS are listed on Annex IV(a) of the European Communities Habitats Directive.



In Britain protection of EPS is achieved through their inclusion on Schedule 2 of the Conservation and Habitats Regulations 2010, Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 12 of the Countryside and Rights of Way Act 2000 (HM Government, 1981, 2000 & 2010).

As a result of this statutory legislation it is an offence to:

- Deliberately capture, injure or kill an EPS;
- Intentionally or recklessly disturb an EPS in its place of rest/ breeding Site;
- Intentionally or recklessly damage, destroy or obstruct access to a EPS place of rest/ breeding Site (even if the EPS is not occupying the resting / breeding place at the time);
- Possess or sell or exchange an EPS (dead or alive) or part of an EPS.

Reptiles (species found in Cornwall: adder, common lizard, slow worm and grass snake): reptiles are protected under Schedule 5 (section 9(1) and 9(5)) of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to kill and/ or injure reptiles, and sell or transport for the purpose of sale.

Statutory Designated Sites

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are of International nature conservation importance.

Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs) are of National importance. Development proposals with potential to affect a SAC, SSSI or NNR require permission from Natural England.

Local Nature Reserves (LNRs) are protected from development; the Local authority is responsible for LNRs.

Non-Statutory Designations

Non-statutory Sites include **County Wildlife Sites (CWS), County Geology Sites (CGS), Roadside Verge Audit Biological Sites** and **Ancient Woodlands**. CWSs and CGSs are of at least county importance for wildlife/geology in Cornwall; all are given increased protection through the planning process.

Biodiversity Action Plans (BAPs): BAPs distinguish National and County level priority habitats and species for conservation. The Local Authority has a duty to conserve UK BAP priority habitats and species under Section 74 of the CRow Act (2000).

Red Data Books & Lists: detail the status of species in relation to threat.

Planning Context

The local planning authority has a statutory obligation to consider impacts upon protected species resulting from development. Planning permission will not be granted with outstanding ecological surveys, and if applicable an appropriate mitigation plan (except under exceptional circumstances as set out in ODPM Circular 06/2005).



National Policy: The revised National Planning Policy Framework (NPPF) was published on 24 July 2018 and sets out the government's planning policies for England and how these are expected to be applied. This revised Framework replaces the previous National Planning Policy Framework published in March 2012. Chapter 15 of the NPPF 'Conserving and enhancing the natural environment' is detailed below:

170. Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, Sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

171. Plans should: distinguish between the hierarchy of international, national and locally designated Sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

172. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and



c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

173. Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 172), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.

174. To protect and enhance biodiversity and geodiversity, plans should: a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated Sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

175. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity 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;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the Site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

176. The following should be given the same protection as habitats Sites:

a) potential Special Protection Areas and possible Special Areas of Conservation;

b) listed or proposed Ramsar Sites; and

c) Sites identified, or required, as compensatory measures for adverse effects on habitats Sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar Sites.

177. The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats Site is being planned or determined.



178. Planning policies and decisions should ensure that:

- a) a Site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);
- b) after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and
- c) adequate Site investigation information, prepared by a competent person, is available to inform these assessments.

179. Where a Site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.

180. Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the Site or the wider area to impacts that could arise from the development. In doing so they should:

- a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;
- b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and
- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

181. Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual Sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

182. Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

183. The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development,



the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.

Local Policy: The new Local Plan was adopted on the 22nd November 2016.

The key relevant policies from the Local Plan relating to ecology and nature conservation are Policy 22 (European Protected Sites) and Policy 23 (Natural Environment).

Policy 22 is detailed below:

- For residential development and student and tourist accommodation, mitigation measures for recreational impacts on European Sites will be required where development is proposed within the identified zones of influence around those European Sites that are vulnerable to adverse recreational impacts. Residential development, student and tourist accommodation within these zones of influence will be required to provide for appropriate management, mitigation and monitoring on Site, and/ or financial contributions towards off Site mitigation and management. This will need to be agreed and secured prior to approval of the development.

Policy 23 comprises a number of measures for development proposals including:

- Development should conserve, protect and where possible enhance biodiversity and geodiversity interests and soils commensurate with their status and giving appropriate weight to their importance (3).
- All development must ensure that the importance of habitats and designated Sites are taken into account and consider opportunities for the creation of a local and county-wide biodiversity network of wildlife corridors which link County Wildlife Sites and other areas of biodiversity importance (3);
- The highest level of protection will be given to potential and existing Special Protection Areas, candidate and existing Special Areas of Conservation and listed or proposed RAMSAR Sites (3a).
- Development proposals within or outside an SSSI or Marine Conservation Zone which would be likely to adversely affect the Site (either individually or in combination with other developments) will not be permitted unless the benefits of the development, at this Site, clearly outweigh both the adverse impacts on the Site and any adverse impacts on the wider network of SSSI and Marine Conservation Zones (3b).
- Development likely to adversely affect locally designated Sites, their features or their function as part of the ecological network, including County Wildlife Sites, Local Geological Sites and Sites supporting Biodiversity Action Plan habitats and species, will only be permitted where the need and benefits of the development clearly outweigh the loss and the coherence of the local ecological network is maintained (3c).
- Adverse impacts on European and UK protected species and Biodiversity Action Plan habitats and species must be avoided wherever possible (i) subject to the legal tests afforded to them, where applicable (ii) otherwise, unless the need for and benefits clearly outweigh the loss (3d).
- Development must avoid the loss or deterioration of ancient woodland and veteran trees, unless the need for, or benefits of, development on that Site clearly outweigh the loss (3e).



- Development should avoid adverse impact on existing features as a first principle and enable net gains by designing in landscape and biodiversity features and enhancements, and opportunities for geological conservation alongside new development. Where adverse impacts are unavoidable they must be adequately and proportionately mitigated. If full mitigation cannot be provided, compensation will be required as a last resort (4).



12.0 Appendix 4: ERCCIS Species Records

Protected and designated species records table

This table summarises records from 1960 onwards. The sighting numbers are total number of records in period, not the number of individuals

Details on abundance can be seen in your excel dataset, but please note that where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record

Alga				
Asparagopsis armata	Harpoon Weed	7	2011 - 2019	Legal, Invasive Non-Native
Codium vermilara	n/a	1	2011 - 2011	Local Priority
Sphaerococcus coronopifolius	n/a	1	1979 - 1979	Local Priority
Amphibian				
Bufo bufo	Common Toad	167	1977 - 2017	Legal, Priority
Lissotriton helveticus	Palmate Newt	73	2003 - 2017	Legal
Rana temporaria	Common Frog	16	1969 - 2012	Legal
Bird				
Accipiter nisus	Sparrowhawk	49	1988 - 2019	Legal, Priority
Actitis hypoleucos	Common Sandpiper	10	1998 - 2016	Legal, Priority, Local Priority
Alauda arvensis	Skylark	10	1997 - 2018	Legal, Priority
Alca torda	Razorbill	47	1966 - 2019	Legal, Priority, Local Priority
Alcedo atthis	Kingfisher	58	1997 - 2018	Legal, Priority
Alle alle	Little Auk	24	1963 - 2014	Legal
Anas acuta	Pintail	8	1997 - 1997	Legal, Priority, Local Priority
Anas clypeata	Shoveller	10	1991 - 2008	Legal, Priority, Local Priority
Anas crecca	Teal	8	1970 - 2014	Legal, Priority, Local Priority
Anas penelope	Wigeon	1	2005 - 2005	Legal, Priority, Local Priority
Anas platyrhynchos	Mallard	385	1964 - 2019	Legal, Priority
Anas querquedula	Garganey	3	2013 - 2017	Legal, Priority, Local Priority

Anas strepera	Gadwall	8	1991 - 2018	Legal, Priority, Local Priority
Anthus campestris	Tawny Pipit	1	1998 - 1998	Legal
Anthus petrosus	Rock Pipit	86	1965 - 2019	Legal
Anthus pratensis	Meadow Pipit	56	1966 - 2019	Legal, Priority
Anthus richardi	Richard's Pipit	1	2013 - 2013	Legal
Anthus spinoletta	Water Pipit	2	1993 - 2019	Legal, Priority, Local Priority
Anthus trivialis	Tree Pipit	1	2009 - 2009	Legal, Priority
Apus apus	Swift	76	1971 - 2020	Priority
Apus melba	Alpine Swift	2	2006 - 2010	Legal
Ardea alba	Great White Egret	1	2011 - 2011	Legal
Ardea cinerea	Grey Heron	106	1989 - 2019	Legal, Priority
Arenaria interpres	Turnstone	51	1965 - 2018	Legal, Priority, Local Priority
Aythya ferina	Pochard	74	1964 - 2019	Legal, Priority, Local Priority
Aythya fuligula	Tufted Duck	420	1963 - 2019	Legal, Local Priority
Aythya marila	Scaup	29	1965 - 2015	Legal, Priority
Aythya nyroca	Ferruginous Duck	1	2018 - 2018	Legal
Bombycilla garrulus	Waxwing	15	2011 - 2013	Legal
Botaurus stellaris	Bittern	1	1996 - 1996	Legal, Priority
Branta bernicla	Brent Goose	1	2012 - 2012	Legal, Priority
Branta canadensis	Canada Goose	5	1999 - 2017	Legal, Invasive Non-Native
Bubo scandiacus	Snowy Owl	1	2009 - 2009	Legal
Bubulcus ibis	Cattle Egret	3	2007 - 2017	Legal
Bucephala clangula	Goldeneye	13	1966 - 2011	Legal, Priority
Buteo buteo	Buzzard	71	1987 - 2018	Legal
Buteo lagopus	Rough-legged Buzzard	1	2009 - 2009	Legal
Calidris alba	Sanderling	3	2011 - 2016	Legal, Priority, Local Priority
Calidris alpina	Dunlin	7	2004 - 2016	Legal, Priority, Local Priority

<i>Calidris maritima</i>	Purple Sandpiper	15	1971 - 2016	Legal, Priority, Local Priority
<i>Carduelis carduelis</i>	Goldfinch	173	1964 - 2019	Legal
<i>Cecropis daurica</i>	Red-rumped Swallow	2	1980 - 2012	Legal
<i>Cephus grylle</i>	Black Guillemot	43	1997 - 2019	Legal
<i>Certhia familiaris</i>	Treecreeper	4	1987 - 1997	Legal
<i>Cettia cetti</i>	Cetti's Warbler	19	1985 - 2018	Legal, Local Priority
<i>Charadrius hiaticula</i>	Ringed Plover	23	1971 - 2018	Legal, Priority, Local Priority
<i>Chlidonias niger</i>	Black Tern	1	1993 - 1993	Legal, Priority
<i>Chloris chloris</i>	Greenfinch	142	1965 - 2019	Legal, Priority
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	354	1963 - 2019	Legal, Priority, Local Priority
<i>Ciconia ciconia</i>	White Stork	1	2013 - 2013	Legal
<i>Clangula hyemalis</i>	Long-tailed Duck	100	1964 - 2015	Legal, Priority
<i>Coccothraustes coccothraustes</i>	Hawfinch	1	2011 - 2011	Legal, Priority
<i>Columba livia</i>	Feral Pigeon/Rock Dove	60	1998 - 2019	Legal
<i>Columba oenas</i>	Stock Dove	2	1998 - 2009	Legal, Priority
<i>Columba palumbus</i>	Woodpigeon	331	1965 - 2019	Legal
<i>Corvus corone</i>	Carrion Crow	251	1965 - 2019	Legal
<i>Corvus corone subsp. corone</i>	Carrion Crow	15	1997 - 2013	Legal
<i>Corvus frugilegus</i>	Rook	20	1966 - 2019	Legal, Priority
<i>Corvus monedula</i>	Jackdaw	220	1966 - 2019	Legal
<i>Cyanistes caeruleus</i>	Blue Tit	309	1963 - 2019	Legal
<i>Cygnus atratus</i>	Black Swan	5	2009 - 2010	Legal
<i>Cygnus olor</i>	Mute Swan	414	1964 - 2019	Legal, Priority
<i>Delichon urbicum</i>	House Martin	14	1971 - 2018	Legal, Priority
<i>Dendrocopos major</i>	Great Spotted Woodpecker	57	1997 - 2019	Legal
<i>Dendrocopos minor</i>	Lesser Spotted Woodpecker	2	1968 - 1971	Legal, Priority, Local Priority
<i>Egretta garzetta</i>	Little Egret	63	1993 - 2018	Legal, Local Priority
<i>Emberiza calandra</i>	Corn Bunting	1	1994 - 1994	Priority, Local Priority

<i>Emberiza citrinella</i>	Yellowhammer	4	1997 - 2011	Legal, Priority
<i>Emberiza schoeniclus</i>	Reed Bunting	11	1964 - 2004	Legal, Priority
<i>Erithacus rubecula</i>	Robin	321	1965 - 2019	Legal
<i>Falco columbarius</i>	Merlin	1	1985 - 1985	Legal, Priority
<i>Falco peregrinus</i>	Peregrine	18	1970 - 2017	Legal, Local Priority
<i>Falco subbuteo</i>	Hobby	1	2016 - 2016	Legal, Local Priority
<i>Falco tinnunculus</i>	Kestrel	36	1989 - 2018	Legal, Priority
<i>Fringilla montifringilla</i>	Brambling	21	1969 - 2018	Legal
<i>Fulica atra</i>	Coot	491	1963 - 2019	Legal, Priority
<i>Fulmarus glacialis</i>	Fulmar	84	1988 - 2019	Priority
<i>Gallinago gallinago</i>	Snipe	2	1997 - 2010	Legal, Priority, Local Priority
<i>Gallinula chloropus</i>	Moorhen	389	1963 - 2019	Legal, Priority
<i>Garrulus glandarius</i>	Jay	144	1970 - 2019	Legal
<i>Gavia</i>	Indet. Diver	5	2011 - 2014	Legal
<i>Gavia adamsii</i>	White-billed Diver	1	2014 - 2014	Legal
<i>Gavia arctica</i>	Black-throated Diver	124	1970 - 2019	Legal, Priority, Local Priority
<i>Gavia immer</i>	Great Northern Diver	194	1966 - 2019	Legal, Priority, Local Priority
<i>Gavia stellata</i>	Red-throated Diver	14	1962 - 2014	Legal, Local Priority
<i>Haematopus ostralegus</i>	Oystercatcher	117	1965 - 2019	Legal, Priority, Local Priority
<i>Hirundo rustica</i>	Swallow	89	1965 - 2018	Legal
<i>Hydrobates pelagicus</i>	Storm Petrel	13	2004 - 2017	Legal, Priority, Local Priority
<i>Hydrocoloeus minutus</i>	Little Gull	38	1976 - 2018	Legal
<i>Ixobrychus minutus</i>	Little Bittern	16	1964 - 2003	Legal
<i>Larus argentatus</i>	Herring Gull	441	1964 - 2019	Legal, Priority
<i>Larus argentatus subsp. argenteus</i>	European herring gull	1	2014 - 2014	Legal, Priority
<i>Larus canus</i>	Common Gull	32	1965 - 2017	Legal, Priority
<i>Larus fuscus</i>	Lesser Black-backed Gull	108	1971 - 2019	Legal, Priority
<i>Larus glaucoides</i>	Iceland Gull	29	1988 - 2017	Legal, Priority

Larus hyperboreus	Glaucous Gull	32	1966 - 2018	Legal, Priority
Larus marinus	Great Black-backed Gull	201	1964 - 2019	Legal, Priority
Larus melanocephalus	Mediterranean Gull	484	1975 - 2019	Legal, Priority, Local Priority
Larus michahellis	Yellow-legged Gull	1	2017 - 2017	Priority
Larus michahellis subsp. michahellis	Yellow-legged Gull	87	1997 - 2004	Priority
Limosa lapponica	Bar-tailed Godwit	1	2014 - 2014	Legal, Priority, Local Priority
Linaria cannabina	Linnet	39	1997 - 2018	Legal, Priority
Loxia curvirostra	Common Crossbill	1	1988 - 1988	Legal, Local Priority
Luscinia megarhynchos	Nightingale	1	2019 - 2019	Legal, Priority
Melanitta fusca	Velvet Scoter	3	1997 - 2013	Legal, Priority
Melanitta nigra	Common Scoter	25	1968 - 2016	Legal, Priority, Local Priority
Melanitta perspicillata	Surf Scoter	4	2006 - 2006	Legal
Mergus merganser	Goosander	1	1963 - 1963	Legal, Local Priority
Mergus serrator	Red-breasted Merganser	7	1971 - 2014	Legal, Priority
Milvus migrans	Black Kite	1	2016 - 2016	Legal
Milvus milvus	Red Kite	8	2002 - 2018	Legal, Priority, Local Priority
Morus bassanus	Gannet	59	1966 - 2019	Legal, Priority
Motacilla alba	Pied/White Wagtail	53	1965 - 2018	Legal
Motacilla alba subsp. alba	White Wagtail	5	1984 - 2013	Legal
Motacilla alba subsp. yarrellii	Pied Wagtail	145	1963 - 2019	Legal
Motacilla cinerea	Grey Wagtail	55	1965 - 2019	Legal, Priority
Motacilla flava	Yellow Wagtail	1	1971 - 1971	Legal, Priority
Muscicapa striata	Spotted Flycatcher	1	2014 - 2014	Legal, Priority
Netta rufina	Red-crested Pochard	1	1969 - 1969	Legal
Numenius arquata	Curlew	69	1997 - 2017	Legal, Priority, Local Priority
Numenius phaeopus	Whimbrel	63	2002 - 2018	Legal, Priority, Local Priority
Oceanites oceanicus	Wilson's Petrel	1	2013 - 2013	Legal

Oenanthe oenanthe	Wheatear	10	1988 - 2016	Legal
Pandion haliaetus	Osprey	11	2006 - 2018	Legal, Priority
Parus major	Great Tit	243	1965 - 2019	Legal
Passer domesticus	House Sparrow	144	1993 - 2019	Legal, Priority
Passer montanus	Tree Sparrow	1	2010 - 2010	Legal, Priority
Pastor roseus	Rose-coloured Starling	1	2009 - 2009	Legal
Periparus ater	Coal Tit	86	1964 - 2019	Legal
Pernis apivorus	Honey-buzzard	2	1998 - 2011	Legal, Priority
Phalacrocorax aristotelis	Shag	149	1965 - 2019	Legal, Priority
Phalacrocorax carbo	Cormorant	291	1965 - 2019	Legal, Priority
Phalaropus fulicarius	Grey Phalarope	20	1976 - 2014	Legal
Phasianus colchicus	Pheasant	3	2010 - 2013	Legal
Phoenicurus ochruros	Black Redstart	212	1968 - 2019	Legal, Priority
Phylloscopus sibilatrix	Wood Warbler	1	1985 - 1985	Legal, Priority, Local Priority
Phylloscopus trochilus	Willow Warbler	23	1968 - 2018	Priority
Pica pica	Magpie	298	1965 - 2019	Legal
Picus viridis	Green Woodpecker	63	1989 - 2019	Legal
Platalea leucorodia	Spoonbill	2	2007 - 2013	Legal, Priority, Local Priority
Plectrophenax nivalis	Snow Bunting	2	2013 - 2013	Legal, Priority
Pluvialis squatarola	Grey Plover	2	1988 - 2014	Legal, Priority, Local Priority
Podiceps auritus	Slavonian Grebe	116	1971 - 2017	Legal, Priority, Local Priority
Podiceps cristatus	Great Crested Grebe	94	1996 - 2017	Legal, Priority, Local Priority
Podiceps grisegena	Red-necked Grebe	83	1970 - 2017	Legal, Priority, Local Priority
Podiceps nigricollis	Black-necked Grebe	34	1970 - 2016	Legal, Priority, Local Priority
Porzana porzana	Spotted Crake	2	1971 - 1971	Legal, Priority
Prunella modularis	Dunnock	290	1965 - 2019	Legal, Priority
Puffinus griseus	Sooty Shearwater	7	2002 - 2017	Priority

<i>Puffinus mauretanicus</i>	Balearic Shearwater	22	2002 - 2017	Legal, Priority, Local Priority
<i>Puffinus puffinus</i>	Manx Shearwater	11	2002 - 2016	Legal, Priority, Local Priority
<i>Pyrrhula pyrrhula</i>	Bullfinch	88	1963 - 2019	Priority
<i>Pyrrhula pyrrhula subsp. pileata</i>	Eurasian Bullfinch	1	2014 - 2014	Legal, Priority
<i>Rallus aquaticus</i>	Water Rail	196	1964 - 2019	Legal, Local Priority
<i>Regulus ignicapilla</i>	Firecrest	136	1987 - 2018	Legal
<i>Regulus regulus</i>	Goldcrest	146	1965 - 2018	Legal
<i>Riparia riparia</i>	Sand Martin	13	1965 - 2017	Legal, Local Priority
<i>Rissa tridactyla</i>	Kittiwake	42	1977 - 2019	Legal, Priority, Local Priority
<i>Saxicola rubetra</i>	Whinchat	1	2012 - 2012	Legal, Priority, Local Priority
<i>Saxicola rubicola</i>	European Stonechat	47	1970 - 2018	Legal
<i>Scolopax rusticola</i>	Woodcock	5	1997 - 2004	Legal, Priority
<i>Sitta europaea</i>	Nuthatch	61	1998 - 2019	Legal
<i>Somateria mollissima</i>	Eider	4	1971 - 2014	Legal, Priority
<i>Spinus spinus</i>	Siskin	34	1970 - 2010	Legal, Local Priority
<i>Stercorarius longicaudus</i>	Long-tailed Skua	1	2012 - 2012	Legal
<i>Stercorarius parasiticus</i>	Arctic Skua	6	2012 - 2014	Priority
<i>Stercorarius skua</i>	Great Skua	10	2012 - 2016	Legal, Priority
<i>Sterna dougallii</i>	Roseate Tern	1	2009 - 2009	Legal, Priority, Local Priority
<i>Sterna hirundo</i>	Common Tern	9	1967 - 2018	Legal, Priority, Local Priority
<i>Sterna paradisaea</i>	Arctic Tern	4	1997 - 2014	Legal, Priority
<i>Sterna paradisaea/hirundo</i>	'Comic' tern	1	2011 - 2011	Local Priority
<i>Sterna sandvicensis</i>	Sandwich Tern	98	1975 - 2018	Legal, Priority, Local Priority
<i>Sternula albifrons</i>	Little Tern	2	2008 - 2013	Legal, Priority
<i>Streptopelia decaocto</i>	Collared Dove	75	1970 - 2019	Legal, Priority
<i>Strix aluco</i>	Tawny Owl	27	1990 - 2019	Legal, Priority
<i>Sturnus vulgaris</i>	Starling	42	1966 - 2018	Legal, Priority

<i>Sylvia curruca</i>	Lesser Whitethroat	8	1998 - 2016	Local Priority
<i>Tachybaptus ruficollis</i>	Little Grebe	397	1963 - 2019	Legal, Local Priority
<i>Tadorna tadorna</i>	Shelduck	3	1965 - 2016	Legal, Priority, Local Priority
<i>Tringa nebularia</i>	Greenshank	8	2001 - 2008	Legal, Priority, Local Priority
<i>Tringa totanus</i>	Redshank	15	2006 - 2014	Legal, Priority, Local Priority
<i>Troglodytes troglodytes</i>	Wren	257	1965 - 2019	Legal
<i>Turdus iliacus</i>	Redwing	52	1971 - 2019	Legal, Priority
<i>Turdus merula</i>	Blackbird	318	1965 - 2019	Legal
<i>Turdus philomelos</i>	Song Thrush	159	1965 - 2019	Legal, Priority
<i>Turdus pilaris</i>	Fieldfare	8	1970 - 2018	Legal, Priority
<i>Turdus torquatus</i>	Ring Ouzel	1	1963 - 1963	Legal, Priority
<i>Turdus viscivorus</i>	Mistle Thrush	11	1997 - 2019	Legal, Priority
<i>Upupa epops</i>	Hoopoe	4	1988 - 2015	Legal
<i>Uria aalge</i>	Guillemot	41	1966 - 2018	Legal, Priority, Local Priority
<i>Vanellus vanellus</i>	Lapwing	2	1997 - 1998	Legal, Priority, Local Priority
<i>Xema sabini</i>	Sabine's Gull	1	2013 - 2013	Legal

Bony Fish (Actinopterygii)

<i>Anguilla anguilla</i>	European Eel	3	1970 - 2019	Legal, Priority, Local Priority
<i>Capros aper</i>	Oar-fish	1	2014 - 2014	Local Priority
<i>Gobius cobitis</i>	Giant Goby	1	1998 - 1998	Legal, Local Priority
<i>Mola mola</i>	Sun-fish	1	2012 - 2012	Local Priority
<i>Pleuronectes platessa</i>	Plaice	1	1983 - 1983	Legal, Priority
<i>Pomatoschistus microps</i>	Common Goby	1	1970 - 1970	Legal
<i>Pomatoschistus minutus</i>	Sand Goby	1	1977 - 1977	Legal
<i>Solea solea</i>	Sole	1	1968 - 1968	Legal, Priority

Bryozoan

<i>Victorella pavida</i>	Trembling Sea-mat	5	1968 - 2009	Legal, Priority, Local Priority
--------------------------	-------------------	---	-------------	---------------------------------

Cartilagenous Fish (Chondrichthyes)

Cetorhinus maximus	Basking Shark	8	1994 - 2006	Legal, Priority, Local Priority
--------------------	---------------	---	-------------	---------------------------------

Centipede

Hydroschendyla submarina	n/a	1	1972 - 1972	Priority
Lithobius (Lithobius) pilicornis	n/a	1	1972 - 1972	Priority

Chromist

Sargassum muticum	Wireweed	5	2013 - 2016	Legal, Invasive Non-Native
-------------------	----------	---	-------------	----------------------------

Clubmoss

Selaginella kraussiana	Krauss's Clubmoss	1	1960 - 1960	Invasive Non-Native
------------------------	-------------------	---	-------------	---------------------

Coelenterate (=Cnidarian)

Pelagia noctiluca	Mauve Stinger	1	2015 - 2015	Local Priority
Physalia physalis	Portuguese Man'O War	4	2000 - 2017	Local Priority
Velella velella	By-the-wind-sailor	1	2003 - 2003	Local Priority

Conifer

Pinus sylvestris	Scots Pine	2	1987 - 1993	Priority
------------------	------------	---	-------------	----------

Crustacean

Austrominius modestus	n/a	3	1970 - 2016	Invasive Non-Native
Balanidae	n/a	1	2013 - 2013	Local Priority
Ceriodaphnia dubia	n/a	1	1970 - 1970	Local Priority
Gammarus chevreuxi	n/a	2	1970 - 1984	Local Priority

Echinoderm

Asterina phylactica	n/a	5	2000 - 2015	Local Priority
Echinus esculentus	Edible Sea Urchin	1	1980 - 1980	Priority

False Scorpion (Pseudoscorpiones)

Neobisium (Neobisium) maritimum	Shore Neobisid	3	1979 - 2007	Local Priority
---------------------------------	----------------	---	-------------	----------------

Fern

Azolla filiculoides	Water Fern	1	2004 - 2004	Legal, Invasive Non-Native
---------------------	------------	---	-------------	----------------------------

Flatworm (Turbellaria)

Kontikia ventrolineata	n/a	1	2004 - 2004	Legal, Invasive Non-Native
------------------------	-----	---	-------------	----------------------------

<i>Leptoplanea tremellaris</i>	n/a	2	2015 - 2015	Local Priority
Flowering Plant				
<i>Allium triquetrum</i>	Three-cornered Garlic	33	1985 - 2016	Legal, Invasive Non-Native
<i>Arum italicum</i> subsp. <i>neglectum</i>	n/a	1	1994 - 1994	Priority, Local Priority
<i>Buddleja davidii</i>	Butterfly-bush	16	1985 - 2016	Invasive Non-Native
<i>Calluna vulgaris</i>	Heather	1	1993 - 1993	Priority
<i>Calystegia sepium</i> subsp. <i>roseata</i>	n/a	1	1962 - 1962	Priority
<i>Carpobrotus edulis</i>	Hottentot-fig	9	1994 - 2016	Legal, Invasive Non-Native
<i>Cortaderia selloana</i>	Pampas-grass	5	1993 - 2010	Invasive Non-Native
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster	4	1981 - 2014	Legal, Invasive Non-Native
<i>Cotoneaster simonsii</i>	Himalayan Cotoneaster	6	1960 - 2013	Legal, Invasive Non-Native
<i>Crassula helmsii</i>	New Zealand Pigmyweed	1	2011 - 2011	Legal, Invasive Non-Native
<i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia	19	1986 - 2016	Legal, Invasive Non-Native
<i>Cyclamen hederifolium</i>	Sowbread	8	1993 - 2014	Legal
<i>Egeria densa</i>	Large-flowered Waterweed	1	2011 - 2011	Invasive Non-Native
<i>Elodea canadensis</i>	Canadian Waterweed	3	2007 - 2013	Legal, Invasive Non-Native
<i>Erigeron karvinskianus</i>	Mexican Fleabane	7	1960 - 2014	Invasive Non-Native
<i>Erodium moschatum</i>	Musk Stork's-bill	1	2009 - 2009	Local Priority
<i>Euphrasia confusa</i>	Little Kneeling Eyebright	1	1993 - 1993	Priority
<i>Fallopia japonica</i>	Japanese Knotweed	38	1987 - 2018	Legal, Invasive Non-Native
<i>Fragaria vesca</i>	Wild Strawberry	5	1990 - 2014	Priority
<i>Fritillaria meleagris</i>	Fritillary	2	2013 - 2013	Priority
<i>Fumaria occidentalis</i>	Western Ramping-fumitory	1	2009 - 2009	Priority, Local Priority
<i>Hyacinthoides hispanica</i>	Spanish Bluebell	5	1960 - 2014	Invasive Non-Native
<i>Hyacinthoides non-scripta</i>	Bluebell	15	1987 - 2014	Legal

<i>Hypericum undulatum</i>	Wavy St John's-wort	1	1961 - 1961	Priority, Local Priority
<i>Lagarosiphon major</i>	Curly Waterweed	3	2011 - 2011	Legal, Invasive Non-Native
<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>	n/a	12	1960 - 2016	Legal, Invasive Non-Native
<i>Leycesteria formosa</i>	Himalayan Honeysuckle	5	1960 - 2014	Invasive Non-Native
<i>Lonicera japonica</i>	Japanese Honeysuckle	2	1967 - 1967	Invasive Non-Native
<i>Lysichiton americanus</i>	American Skunk-cabbage	8	1981 - 2018	Invasive Non-Native
<i>Medicago polymorpha</i>	Toothed Medick	1	1960 - 1960	Priority, Local Priority
<i>Mentha suaveolens</i>	Round-leaved Mint	1	2009 - 2009	Priority
<i>Misopates orontium</i>	Weasel's-snout	3	1960 - 2014	Priority, Local Priority
<i>Myriophyllum aquaticum</i>	Parrot's-feather	4	1992 - 2007	Legal, Invasive Non-Native
<i>Oxalis acetosella</i>	Wood-sorrel	1	2017 - 2017	Priority
<i>Petasites fragrans</i>	Winter Heliotrope	27	1985 - 2017	Invasive Non-Native
<i>Poa infirma</i>	Early Meadow-grass	2	2007 - 2012	Priority, Local Priority
<i>Prunus laurocerasus</i>	Cherry Laurel	3	2007 - 2013	Invasive Non-Native
<i>Pseudosasa japonica</i>	Arrow Bamboo	5	2007 - 2016	Invasive Non-Native
<i>Quercus ilex</i>	Evergreen Oak	12	1987 - 2019	Invasive Non-Native
<i>Rhododendron ponticum</i>	n/a	3	2009 - 2013	Legal, Invasive Non-Native
<i>Robinia pseudoacacia</i>	False-acacia	1	1986 - 1986	Invasive Non-Native
<i>Ruscus aculeatus</i>	Butcher's-broom	2	1960 - 1962	Legal
<i>Senecio aquaticus</i>	Marsh Ragwort	1	1987 - 1987	Priority
<i>Sibthorpia europaea</i>	Cornish Moneywort	2	1973 - 2000	Priority, Local Priority
<i>Solidago virgaurea</i>	Goldenrod	1	2009 - 2009	Priority
<i>Spiranthes spiralis</i>	Autumn Lady's-tresses	1	1960 - 1960	Priority, Local Priority
<i>Stachys arvensis</i>	Field Woundwort	3	1988 - 1994	Priority, Local Priority
<i>Tilia platyphyllos</i>	Large-leaved Lime	1	1986 - 1986	Priority
<i>Verbascum virgatum</i>	Twiggy Mullein	2	1961 - 1961	Local Priority

Fungus

<i>Chlorophyllum brunneum</i>	Brown Parasol	1	2006 - 2006	Local Priority
<i>Clathrus archeri</i>	Devil's Fingers	2	2017 - 2017	Local Priority

Clathrus ruber	Red Cage	6	1987 - 2005	Local Priority
Conocybe semiglobata	n/a	1	1992 - 1992	Local Priority
Geastrum fornicatum	Arched Earthstar	1	1978 - 1978	Local Priority
Russula amoenolens	Camembert Brittlegill	1	2006 - 2006	Local Priority

Insect - Beetle (Coleoptera)

Aepus marinus	n/a	1	2007 - 2007	Priority
Aepus robinii	n/a	1	2007 - 2007	Priority
Harmonia axyridis	Harlequin Ladybird	9	2008 - 2019	Invasive Non-Native
Hydraena palustris	n/a	1	1970 - 1970	Priority
Leptura aurulenta	n/a	1	2019 - 2019	Priority, Local Priority
Oedemera femoralis	n/a	1	2017 - 2017	Priority

Insect - Booklouse (Psocoptera)

Atlantopsocus adustus	n/a	3	2013 - 2013	Local Priority
-----------------------	-----	---	-------------	----------------

Insect - Butterfly

Coenonympha pamphilus	Small Heath	1	1986 - 1986	Legal, Priority
Lasiommata megera	Wall	19	2011 - 2019	Legal, Priority

Insect - Hymenopteran

Andrena bicolor	Gwynne's Mining Bee	3	2015 - 2017	Local Priority
Andrena bucephala	Big-headed Mining Bee	3	2015 - 2018	Priority
Andrena fulvago	Hawksbeard Mining Bee	1	2015 - 2015	Priority, Local Priority
Andrena labiata	Red-girdled Mining Bee	4	2016 - 2017	Priority, Local Priority
Andrena thoracica	Cliff Mining Bee	15	2015 - 2020	Local Priority
Andrena trimmerana	Trimmer's Mining Bee	3	2015 - 2020	Priority, Local Priority
Bombus jonellus	Heath Bumblebee	2	2016 - 2017	Local Priority
Bombus muscorum	Moss Carder Bee	1	1986 - 1986	Legal, Priority, Local Priority
Gorytes laticinctus	n/a	1	2016 - 2016	Priority
Lestiphorus bicinctus	n/a	1	2016 - 2016	Priority, Local Priority
Melitta leporina	Clover Blunthorn Bee	1	2015 - 2015	Local Priority
Nomada hirtipes	Long-horned Nomad Bee	7	2015 - 2019	Priority, Local Priority
Nomada lathburiana	Lathbury's Nomad Bee	1	2019 - 2019	Priority, Local Priority
Nysson trimaculatus	n/a	1	2015 - 2015	Priority, Local Priority

Plagiotrochus quercusilicis	n/a	1	2019 - 2019	Local Priority
Insect - Moth				
Acronicta rumicis	Knot Grass	2	2015 - 2015	Legal, Priority
Agrochola lychnidis	Beaded Chestnut	1	2015 - 2015	Legal, Priority
Allophyes oxyacanthae	Green-brindled Crescent	1	2015 - 2015	Legal, Priority
Apamea remissa	Dusky Brocade	2	2014 - 2014	Legal, Priority
Cameraria ohridella	Horse-Chestnut Leaf-miner	1	2016 - 2016	Invasive Non-Native
Diarsia rubi	Small Square-spot	8	2015 - 2015	Legal, Priority
Ecliptopera silaceata	Small Phoenix	2	2015 - 2017	Legal, Priority
Hoplodrina blanda	Rustic	2	2014 - 2014	Legal, Priority
Hypena obsitalis	Bloxworth Snout	2	2015 - 2015	Local Priority
Melanchra persicariae	Dot Moth	4	2014 - 2015	Legal, Priority
Melanthia procellata	Pretty Chalk Carpet	2	1989 - 2011	Legal, Priority
Oegoconia caradjai	Straw Obscure	1	2015 - 2015	Priority
Spilosoma lubricipeda	White Ermine	5	2011 - 2018	Legal, Priority
Spilosoma lutea	Buff Ermine	11	1989 - 2015	Legal, Priority
Tachystola acroxantha	Ruddy Streak	7	2015 - 2015	Local Priority
Timandra comae	Blood-vein	1	2015 - 2015	Legal, Priority

Insect - Stick Insect (Phasmida)

Acanthoxyla prasina subsp. inermis	Unarmed Stick-insect	32	1981 - 2017	Local Priority
------------------------------------	----------------------	----	-------------	----------------

Insect - True Bug (Hemiptera)

Leptoglossus occidentalis	Western Conifer Seed Bug	1	2018 - 2018	Invasive Non-Native
---------------------------	--------------------------	---	-------------	---------------------

Insect - True Fly (Diptera)

Conops strigatus	n/a	1	2015 - 2015	Priority
Dicranomyia chorea	n/a	3	1974 - 1999	Priority
Didea fasciata	n/a	1	2015 - 2015	Local Priority
Leopoldius signatus	n/a	4	2015 - 2015	Priority
Limonia trivittata	n/a	1	1975 - 1975	Priority
Paraclusia tigrina	n/a	1	2019 - 2019	Priority

Volucella zonaria	Hornet Hoverfly	7	2012 - 2019	Local Priority
Xanthandrus comtus	n/a	1	2015 - 2015	Local Priority

Lichen

Cladonia portentosa	n/a	1	1996 - 1996	Legal
Lecanora argentata	n/a	1	2013 - 2013	Priority

Marine Mammal

Balaenoptera acutorostrata	Minke Whale	1	2008 - 2008	Legal, Priority, Local Priority
Cetacea	Whales & Dolphins	8	1987 - 2017	Legal
Delphinus delphis	Common Dolphin	6	1983 - 2017	Legal, Priority, Local Priority
Globicephala melas	Long-finned Pilot Whale	1	1982 - 1982	Legal, Priority, Local Priority
Grampus griseus	Risso's Dolphin	2	1998 - 1999	Legal, Priority, Local Priority
Halichoerus grypus	Grey Seal	8	1980 - 2018	Legal
Orcinus orca	Killer Whale	2	1978 - 1978	Legal, Priority, Local Priority
Phocoena phocoena	Harbour Porpoise	5	2004 - 2016	Legal, Priority, Local Priority
Tursiops truncatus	Bottle-nosed Dolphin	8	1992 - 2001	Legal, Priority, Local Priority

Mollusc

Aplysia fasciata	n/a	1	2007 - 2007	Local Priority
Callista chione	Brown Venus	1	1983 - 1983	Priority, Local Priority
Crepidula fornicata	American Slipper Limpet	1	2013 - 2013	Legal, Invasive Non-Native
Nucella lapillus	Dog Whelk	9	2013 - 2019	Legal
Ostrea edulis	Common Oyster	1	1977 - 1977	Legal, Priority, Local Priority
Paralaoma servilis	n/a	1	2001 - 2001	Local Priority
Theba pisana	White Snail	1	2015 - 2015	Local Priority

Moss

Acaulon muticum	Rounded Pygmy-moss	1	1993 - 2005	Priority
Bryum donianum	Don's Thread-moss	1	2001 - 2001	Local Priority
Bryum dunense	Dune Thread-moss	1	1999 - 1999	Local Priority

<i>Didymodon nicholsonii</i>	Nicholson's Beard-moss	2	1993 - 2005	Local Priority
<i>Fissidens crispus</i>	Herzog's Pocket-moss	2	1993 - 2005	Local Priority
<i>Fissidens curvatus</i>	Portuguese Pocket-moss	1	2000 - 2000	Legal, Priority, Local Priority
<i>Phascum cuspidatum</i> var. <i>papillosum</i>	Rough Earth-moss	2	1993 - 2005	Local Priority

Reptile

<i>Anguis fragilis</i>	Slow-worm	57	1961 - 2017	Legal, Priority
<i>Zootoca vivipara</i>	Common Lizard	1	2012 - 2012	Legal, Priority

Spoon Worm (Echiura)

<i>Thalassema thalasseum</i>	n/a	1	2000 - 2000	Local Priority
------------------------------	-----	---	-------------	----------------

Terrestrial Mammal

<i>Arvicola amphibius</i>	European Water Vole	3	1974 - 2016	Legal, Priority, Local Priority
<i>Erinaceus europaeus</i>	West European Hedgehog	47	1981 - 2020	Legal, Priority, Local Priority
<i>Lutra lutra</i>	Eurasian Otter	2	2009 - 2009	Legal, Priority, Local Priority
<i>Meles meles</i>	Eurasian Badger	12	1990 - 2017	Legal, Local Priority
<i>Mustela nivalis</i>	Weasel	1	2006 - 2006	Legal
<i>Oryctolagus cuniculus</i>	European Rabbit	2	2006 - 2007	Priority, Invasive Non-Native
<i>Rattus norvegicus</i>	Brown Rat	29	1974 - 2018	Invasive Non-Native
<i>Sciurus carolinensis</i>	Grey Squirrel	24	1990 - 2019	Legal, Invasive Non-Native
<i>Sorex araneus</i>	Eurasian Common Shrew	1	2006 - 2006	Legal, Local Priority

Terrestrial Mammal - Bat (Chiroptera)

Chiroptera	Bat	10	1988 - 2009	Legal, Priority
<i>Myotis mystacinus</i>	Whiskered Bat	1	2013 - 2013	Legal, Local Priority
<i>Myotis mystacinus/brandtii</i>	Whiskered/Brandt's Bat	1	2018 - 2018	Legal, Priority, Local Priority
<i>Nyctalus noctula</i>	Noctule Bat	1	2007 - 2007	Legal, Priority, Local Priority
<i>Pipistrellus nathusii</i>	Nathusius's Pipistrelle	2	2007 - 2009	Legal, Priority, Local Priority
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	19	1985 - 2016	Legal, Local Priority

Pipistrellus pygmaeus	Soprano Pipistrelle	4	2009 - 2016	Legal, Priority, Local Priority
Plecotus	Long-eared Bat species	1	1985 - 1985	Legal
Plecotus auritus	Brown Long-eared Bat	1	2005 - 2005	Legal, Priority, Local Priority
Rhinolophus hipposideros	Lesser Horseshoe Bat	10	2005 - 2015	Legal, Priority, Local Priority
Vespertilionidae	Bats	2	2015 - 2016	Legal

Tunicate (Urochordata)

Styela clava	Leathery Sea Squirt	2	2015 - 2016	Invasive Non-Native
--------------	---------------------	---	-------------	---------------------