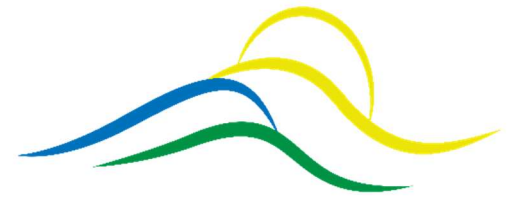


SWE Ref: SWE 290

Version No: 1

Date: 25th February 2021

Client: Cornwall Geothermal
Distillery Company Limited



South West Ecology

Ecological Assessment



Sustainable Distillery Research Centre

Disclosure

The information, opinion and advice which I have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct and the British Standard for Biodiversity – Code of Practice for Planning and Development (2013). I confirm that the opinions expressed are my true and professional bona fide opinions.

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1.0 INTRODUCTION

1.1 Background

SWE Limited was commissioned by Cornwall Geothermal Distillery Limited (CGDC) to undertake an ecological assessment of the site (herewith referred to as the 'site', which is defined as the zone of influence of potential development works) known as the Sustainable Distillery Research Centre. The site is located within the United Mines Landfill Site (Ordnance Survey Grid Ref: SW 743413).

1.2 Objectives

The purpose of this report is to:

- provide a Preliminary Ecological Appraisal (PEA) through consideration of field survey and historic biodiversity data;
- identify ecological constraints and opportunities in relation to development and use of the site;
- identify mitigation and compensation measures which would be required to ensure compliance with nature conservation legislation; and
- identify appropriate enhancement measures which could be incorporated into site design, in line with local and national planning policy.

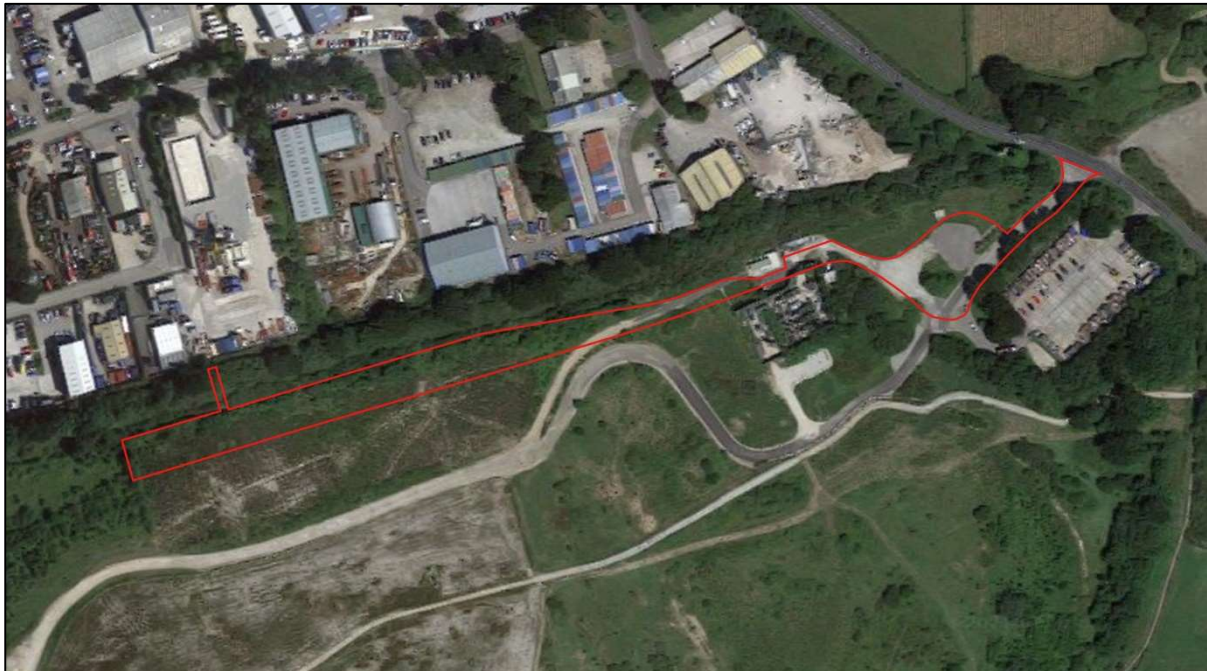
1.3 Site Proposal

The ecological assessment was required to support a planning application for the facility which would include buildings (either 5 separate units or a single open plan building), a service road, car and cycle parking, and a pipeline route to the geothermal plant.

1.4 Site Description

The site (Figure 1) consisted of c. 0.93 ha of hard-standing / tracks, lowland heath, rough grassland, scrub, and woodland edge.

Figure 1. The site. GoogleEarth 2018.



1.5 Report Lifespan

In accordance with CIEEM guidance¹ this report, and the results of the ecological survey contained within, remains valid for 12 months.

This report has been written in accordance with the guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) 2017², the most up-to-date and relevant survey guidance available at the time, and in compliance with BS:42020:2013³ Biodiversity. Code of Practice for Planning and Development.

1.6 Author

The author of this document, Dr S. Holloway, has over twenty-five years' professional experience of ecology, environmental management, and nature conservation in the private, public, and voluntary sectors. Dr Holloway is a full member of CIEEM and is a Chartered Environmentalist (CEnv).

¹ CIEEM. 2019. On the Lifespan of Ecological Reports and Surveys. Advice Note. April 2019.

² CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal. Second Edition*. Chartered Institute of Ecology and Environmental Management, Winchester. December 2017.

³ BSI. 2013. *BS:42020:2013 Biodiversity. Code of Practice for Planning and Development*.

2.0 RELEVANT LEGISLATION AND PLANNING POLICY

2.1 Legislation⁴

2.1.1 *Conservation of Habitats and Species Regulations 2017*

The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb⁵ wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time), but not their habitats. Species include all bats.

The Habitats Regulations 2017 will continue to implement the Habitats Directive and certain elements of the Birds Directives in England. The Habitats Regulations 2010 have been amended ten times since they were last consolidated (in 2010) and are likely to remain in place for some time now that the UK has exited the EU.

2.1.2 *Wildlife & Countryside Act 1981*

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take *any* wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act e.g. all bat species and all reptile species;

⁴ Please note that the summary of relevant legislation provided here is intended for general guidance only. The original legislation should be consulted for definitive information.

⁵ Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.

- Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act;
- Intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act (not applicable for the Site as no species listed on the Schedule were found); or
- Plant or cause to grow in the wild any plant species listed under Schedule 9 of the Act (not applicable for the Site as no species listed on the Schedule occur).

2.1.3 Natural Environment & Rural Communities (NERC) Act 2006

The NERC Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

Section 41 of the Act requires the publication of a list of habitats and species which are of principal importance for the purpose of conserving biodiversity. The Section 41 list is used to guide authorities in implementing their duty to have regard to the conservation of biodiversity.

The Section 41 list includes several bat species, hazel dormouse, hedgehog *Erinaceus europaeus*, slow worm *Anguis fragilis*, grass snake *Natrix natrix*, and common toad *Bufo bufo*.

2.1.4 Wild mammals Protection Act

The Wild Mammals (Protection) Act 1996 makes it an offence for any person to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering. A "wild mammal" means any mammal which is not a domestic or captive animal within the meaning of the Protection of Animals Act 1911.

2.2 Planning Policy

2.2.1 National Policy

The National Planning Policy Framework (NPPF)⁶ sets out guidance for local planning authorities and decision-makers in how to apply planning policies when drawing up plans and making decisions about planning applications. Along with Government Circular 06/05⁷, the broad policy objectives in relation to the protection of biodiversity and geological conservation in England through the planning system are set out.

Paragraph 175 of the NPPF deals with habitats and biodiversity in relation to planning applications. With respect to this assessment the following parts of paragraph 175 apply (in part):

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; 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.

2.2.2 County Policy

The Cornwall Local Plan (adopted on 22 November 2016) provides a planning policy framework for Cornwall for the period up to 2030. Policy 23 of the Plan considers the natural environment. The relevant parts of Policy 23 in relation to the Site are sections 3 and 4 which are as follows:

3. Biodiversity and Geodiversity

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.

⁶ Department for Communities and Local Government. 2019. *National Planning Policy Framework*.

⁷ Office of the Deputy Prime Minister. 2005. Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System. ODPM Circular 06/2005.

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, helping to deliver the actions set out in the Cornwall Biodiversity Action Plan.

3 (c). Local Sites

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.

3(d). Priority species and habitats

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.

3(e). Ancient woodland and veteran trees

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.

4. Avoidance, mitigation and compensation for landscape, biodiversity and geodiversity impacts

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.

Adopted as a Council document in 2018, the Biodiversity Guide⁸ sets out an approach by Cornwall Council for achieving a gain for nature within development sites. It does this by encouraging more biodiverse green and blue space within development sites, such as parks, ponds, and corridors of open green space along rivers and hedges. It also gives prescriptive measures for the provision of bat and bird boxes, and bee bricks to make space for nature and the expected quality of ecological reporting for planning applications.

⁸ Cornwall Council. 2018. Cornwall Planning for Biodiversity Guide.

3.0 SURVEY METHODOLOGY

An examination of existing biodiversity records for the local area, together with field survey data collected in 2021, were used to assess the biodiversity value of the site.

3.1 Historic Biodiversity Records

A review of historic biodiversity within 1 km radius of the site was undertaken on 2nd September 2020. The data were obtained from the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS). The data included statutory designated sites⁹ and records of 'species of conservation concern' at a national, regional, and local level¹⁰. This was in accordance with CIEEM (2017) guidance.

3.2 Field Survey

A survey was conducted by Dr Holloway on 24th February 2021. The weather at the time of survey was 11°C, overcast with F3 winds (wind speed is categorised in accordance with the Beaufort Scale¹¹).

An 'extended' Phase 1 Habitat Survey was conducted in line with CIEEM guidance (2017¹²). The field methodology was based on the Joint Nature Conservation Committee (JNCC, 2010¹³) advice. All habitats were mapped and the presence or potential for presence of protected species noted.

3.3 Limitations

This report is based on the evidence recorded at the site at the time of the survey.

⁹ Statutory designated sites include those protected under national or international legislation, such as Sites of Special Scientific Interest (SSSI). Non-statutory sites include Local Wildlife Sites (LWS) and County Wildlife Sites (CWS).

¹⁰ This includes species protected under international and national legislation, as well as species included in the UK, Red Data Books, and Red or Amber lists of 'birds of conservation concern', and Species of Principle Importance (NERC 2006).

¹¹ The Beaufort scale measures wind speed on a twelve-point scale from zero (calm) to 12 (hurricane).

¹² CIEEM 2017. Guidelines for Preliminary Ecological Appraisal. 2nd Edition. Technical Guidance Series.

¹³ Joint Nature Conservation Committee. 2010. Handbook for Phase 1 Habitat Survey. A Technique for Environmental Audit.

February is outside of the optimum season for Phase 1 Habitat Surveys, however sufficient flora were present for habitat identification.

The scope of the habitat survey did not attempt to quantify the absolute number of plant species present within the site and did not include a survey for lower plants. This is in accordance with best practice guidance for Phase 1 Habitat Surveys.

4.0 RESULTS

4.1 Historical Biodiversity Data

4.1.1 Designated Sites

There were no statutory sites designated for nature conservation within 1 km of the site.

The site falls within the Impact Risk Zone (IRZ)¹⁴ for the West Cornwall Bryophytes Site of Special Scientific (SSSI). The SSSI is *special for its population of rare and scarce bryophytes (mosses and liverworts) which are adapted to growing on copper-rich substrates. The site is made up of seven areas of formerly mined land and the lower plant interest is primarily found on the spoil tips containing copper-rich waste, although some of the areas have derelict mine buildings and other structures which also support important bryophytes*¹⁵

There was one non-statutory site designated for nature conservation within 1 km of the site – North Tresamble County Wildlife Site (CWS)¹⁶. *North Tresamble is a largely wetland area in a valley bottom and extends along a tributary of the Carnon River. Past tin mining activities have resulted in a hummock-hollow complex over part of the site, supporting a mosaic of acid grassland, heathland associates and scattered gorse scrub. There are several areas of standing water, including numerous seasonal pools along the stream margins. Other habitats include willow dominated scrub to the south and fen to the east. Although the site has been subject to considerable disturbance, the shallow pools and small stream are important for Odonata*¹⁷.

4.1.2 Species

There were records for protected and notable species within 1 km of the site (note that the records dated from 1960 onwards, therefore the species data are indicative rather than actual). Species of note that may be relevant to the assessment of the site were:

¹⁴ The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to: Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites.

¹⁵ Natural England. SSSI Citation Sheet.

¹⁶ CWS are the most significant areas for wildlife in Cornwall outside of SSSIs and SACs.

¹⁷ The Wildlife Trusts. CK46 – North Tresamble. County Wildlife Site Summary Sheet.

Bats

Common pipistrelle *Pipistrellus pipistrellus*

Noctule *Nyctalus noctule*

Soprano pipistrelle *Pipistrellus pygmaeus*

Other mammals

Badger *Meles meles*

West European hedgehog *Erinaceus europaeus*

Birds (Priority species which could possibly occur within the site)

Dunnock *Prunella modularis*

Greenfinch *Chloris chloris*

Grey wagtail *Motacilla cinerea*

House sparrow *Passer domesticus*

Snipe *Gallinago gallinago*

Song thrush *Turdus philomelos*

Tree sparrow *Passer montanus*

Flowering plants (Priority species)

Balm-leaved Figwort *Scrophularia scorodonia*

Bell heather *Erica cinerea*

Common Eyebright *Euphrasia nemorosa*

Common Slender Eyebright *Euphrasia micrantha*

Cross-leaved heath *Erica tetralix*

Field Woundwort *Stachys arvensis*

Heath Milkwort *Polygala serpyllifolia*

Heath Speedwell *Veronica officinalis*

Heather *Calluna vulgaris*

Lousewort *Pedicularis sylvatica*

Pale Dog-violet *Viola lactea*

Purple Ramping-fumitory *Fumaria purpurea*

Sheep's-bit *Jasione montana*

Wild strawberry *Fragaria vesca*

There were also records for several other birds, invertebrates, and lower plants within the data. The full list can be found in Appendix A.

4.2 Field Survey

The site habitats were categorised as: lowland heath, scrub, woodland, and ruderal/grass (Drawing 1). The habitats merged into one another and therefore could only be estimated in extent. In addition, there were tracks and areas of permeable parking within the site (these areas are not considered further in this assessment as they had no ecological value).

4.2.1 Lowland Heath

The lowland heath habitat (Figure 2) was c. 10 years old (*pers comm*, Cornwall Council) and was dominated by heather *Calluna vulgaris*, with frequent common gorse *Ulex europaeus*, and occasional cross-leaved heath *Erica tetralix* and broom *Cytisus scoparius*. Small patches of reindeer lichen *Cladonia* ssp. and commonplace bryophytes were noted along with areas of bare ground.

Figure 2. Part of the heath habitat, looking west.



The heath was not fully developed and was prone to succession from adjacent trees and shrubs including *Rhododendron*. If left unmanaged the heath would rapidly turn to scrub and woodland habitat.

4.2.2 Scrub

Open scrub habitat had developed between the woodland to the north and the lowland heath habitat (Figure 3). This habitat was dominated by common gorse with broom, bramble *Rubus fruticosus*, pampas *Cortaderia selloana*, immature silver birch *Betula pendula* and willow *Salix* ssp. Occasional rhododendron was also noted. This habitat was advancing into the heath.

Figure 3. Scrub habitat between the heath and woodland. Looking north.



4.2.3 Woodland

The woodland was located to the northern part of the site where it had grown out from a linear belt of trees which had been planted as a screen between the landfill site and the industrial estate. Tree and shrub species included silver birch, field maple *Acer campestre*, willows, rowan *Sorbus aucuparia*, rhododendron, hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, and pedunculate oak *Quercus robur*. The ground flora included heathers, ivy *Hedera helix*, red campion *Silene dioica*, wood sage *Teucrium scorodonia*, male fern *Dryopteris filix-mas*, pendulous sedge *Carex pendula*, bramble, primrose *Primula vulgaris*, hart's-tongue fern *Asplenium scolopendrium*, and herb robert *Geranium robertianum*.

The trees were immature and did not contain any Potential Roost Features (PRFs) suitable for bats.

4.2.4 Ruderal/grass

Ruderal/grass habitat occurred to the edges of the track and north of the car parking area (Figure 4). In part this habitat was maintained as a short sward by rabbit browsing or to the east had been cut. This habitat was variable but commonly occurring species included cock's-foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, common bird's-foot trefoil *Lotus corniculatus*, tormentil *Potentilla erecta*, creeping thistle *Cirsium arvense*, common sorrel *Rumex acetosa*, bugle *Ajuga reptans*, soft rush *Juncus effusus*, marsh thistle *Cirsium palustre*, docks *Cirsium Ssp.*, lesser celandine *Ficaria verna*, common ragwort *Senecio jacobaea*, bristly ox-tongue *Helminthotheca echioides*, scarlet pimpernel *Anagallis arvensis*, ribwort plantain *Plantago lanceolata*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, yarrow *Achillea millefolium*, clover *Trifolium ssp.*, and willowherbs *Epilobium ssp.*

The grassland area to the east included immature trees. In addition, there was a stone-faced hedge-bank along which grew buddleia *Buddleja davidii*, bramble, hart's-tongue fern, red valerian *Centranthus ruber*, and pendulous sedge *Carex pendula*.

Figure 4. Grassland/ruderal habitat near the car parking area.



5.0 ASSESSMENT

The results of the desk study and field survey were assessed in accordance with current legislation and policy. A proportionate approach was taken in relating the findings to the proposed development and the current use of the site.

Note: no species-specific surveys were undertaken due to time and seasonal constraints. It is assumed that the site contains reptiles including common lizard *Zootoca vivipara* (this species has been noted by those working on the restoration site during the checking of gas emissions – *pers comm*, Cornwall Council), commuting and foraging bats, and nesting birds.

5.1 Designated Sites

The site lies within the IRZ for the West Cornwall Bryophytes SSSI and is within 1 km of the North Tresamble CWS.

The site is sufficiently distant from the SSSI and CWS sites so that no impacts on the integrity of either would occur during the construction or operational phases of the proposed development.

5.2 Habitats

Delivery of the development will result in the inevitable loss of some habitat from within the site (Table 1). The habitats to be lost range from lowland heath which is c. 10 years old through to commonplace plantation woodland, scrub, and grass/ruderal. The proposal has made use of existing car parking and tracks where it is possible to do so in order to reduce impacts on the local ecology resource.

The plantation woodland, scrub, and grass/ruderal habitats consisted of plant communities which are ubiquitous throughout England, are not Habitats of Principal Importance (Natural Environment and Rural Communities Act, 2006) and are of low ecological value. The loss of small areas of these habitats to the proposed development would not be ecologically significant.

Lowland heathland is a Habitat of Principal Importance. In the context of the wider restoration site and given the succession of scrub and woodland which is occurring along the northern

fringe of the site, the loss of a relatively small area of lowland heath to the proposed development is not ecologically significant.

Note: although the loss of habitats within the site due to the proposed development is not considered ecologically significant there will be a need to compensate for such loss as per national and local policy.

Occasional rhododendron was noted within the site. This species is listed on Schedule 9 of the Wildlife and Countryside Act (1981, as amended). It is an offence to plant or otherwise cause to grow this species in the wild.

Table 1. Approximate existing and proposed areas (m²).

Existing areas	
Heath	2218
Scrub	2625
Woodland	77
Grass/ruderal	1136
Hard standing (tracks, car parking, buildings)	3244
TOTAL	9300
Proposed areas	
Heath	385
Scrub	1455
Woodland	0
Grass/ruderal	160
Hard standing (tracks, car parking, buildings)	7300
TOTAL	9300

5.3 Species

5.3.1 Bats

There are records for three species of bat within 1 km of the site. These do not include bat species considered to be light sensitive. The site is likely to be used by bats for foraging and commuting, especially along the woodland corridor.

During construction and operation, the vegetation clearance, and changes to the lighting within the site, has the potential to effect foraging and commuting bats. Bat habitat is not protected.

Given the abundance of similar habitat within the landscape it is considered highly unlikely that the proposed development would have a significant impact on bat activity or on the integrity of any local bat populations. Survey for bat activity is unlikely to produce results that

would change this conclusion. Nonetheless, as a precautionary measure it is recommended that artificial lighting to the northern part of the site i.e. along the woodland corridor, is kept as low as possible through the application of a sensitive lighting plan. Such a plan can be conditioned.

5.3.2 West European hedgehog

The woodland and scrub habitats may be used by hedgehogs for breeding and foraging. Hedgehog is a Priority Species. No survey for hedgehog is required.

Hedgehogs are not specifically protected although it is being considered to include this mammal on the Wildlife and Countryside Act 1981 (as amended). Although the removal of trees and scrub habitat would not have a significant impact on the local hedgehog population, the clearance works could potentially injure or kill hedgehogs and as such mitigation would be prudent.

5.3.3 Nesting birds

The site provided nesting habitat for birds and may be used by Amber or Red list species. Given the size of the site no survey for birds is required.

The removal of a small area of habitat would not have a significant impact on local bird populations. However, clearance of the site vegetation could result in the killing or injury of breeding birds. Without mitigation, the works may cause a breach of wildlife legislation as all nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). Therefore, mitigation will be required for nesting birds.

5.3.4 Reptiles

The site provided suitable habitat for reptiles. Common lizard is known to occur within the site. In addition, slow worm *Anguis fragilis* and adder *Vipera berus* may also occur. All three are Species of Principal Importance.

Given the abundance of similar habitat within the locale, the removal of a small area of habitat would not have a significant impact on local reptile populations. However, during site clearance and construction, there is potential for the killing, injury, or disturbance to the reptiles utilising

the habitats within the site. Without mitigation, the works may cause a breach of wildlife legislation as all reptile species are protected under the Wildlife and Countryside Act 1981 (as amended) from intentional killing or injuring. The clearance works would also result in the permanent loss of areas of habitat suitable for reptiles. Therefore, mitigation will be required for reptiles. Survey will be required prior to site clearance to determine which species of reptile use the site as this will affect the mitigation required, especially regarding translocation measures. The survey can be stipulated within the Reserved Matters.

5.3.5 Invasive species

Section 14(1) of the *Wildlife and Countryside Act 1981* (as amended) makes it illegal to plant or otherwise cause to grow in the wild any plant listed on Schedule 9 of the Act; Rhododendron is listed on Schedule 9. There is potential during the site clearance stage of the proposed development to cause the spread of Rhododendron outside of the site. Therefore, mitigation will be required for Rhododendron.

6.0 RECOMMENDATIONS

Mitigation will be required for hedgehog, breeding birds, reptiles, and Rhododendron (bat activity being dealt with under a lighting condition). Compensation will be required in relation to the loss of habitats.

6.1 Mitigation

6.1.1 Hedgehog

Any clearance of woodland and shrub/scrub habitat should be preceded by a search by the Ecological Clerk of Works (ECoW) for hedgehogs. Any hedgehogs found should be safely moved to a hedgehog box outside of the construction site.

Any trenches (e.g. utility trenches or trenches for foundations) left exposed overnight will be provided with a means of escape for wildlife (as per BS 42020:2013) such as European hedgehog. Such measures will include either a shallow sloped edge or angled board (minimum 30cm width). These will be positioned at a maximum angle of 30°.

6.1.2 Breeding birds

No vegetation clearance which could affect nesting birds, will take place between 1st March and 31st August inclusive, unless the ECoW has undertaken a careful, detailed check for active birds' nests immediately beforehand and provided written confirmation that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interest (as per BS 42020:2013). Any birds nesting will be left to complete breeding (i.e. until all dependant juveniles have fledged).

6.1.3 Reptiles

English Nature (2004) identified two aims that need to be achieved where reptiles are present on proposed development sites:

(1) To protect reptiles from any harm that might arise during the development work; and,

(2) To ensure that sufficient quality, quantity, and connectivity of habitat is provided to accommodate the reptile population...at an alternative site, with no net loss of local reptile conservation status.

Subsequent to a survey to establish the species of reptile present within the site, mitigation proposals should be designed based on the best practice outlined in the Herpetofauna Workers Manual (Gent and Gibson, 1998) and Herpetofauna Groups of Britain & Ireland (1998) publications. To ensure that reptiles are removed from areas which will be impacted because of construction activities (be that creation of development areas, landscaping, drainage or other works), a programme of habitat manipulation, displacement, trapping and translocation will need to be implemented prior to site clearance commencement. All relevant works will need to be supervised by an ECoW.

The following mitigation works will need to be undertaken:

(1) Habitat manipulation where required to facilitate displacement, trapping, and translocation works.

(2) Installation of reptile exclusion fencing around the site which will then be subject to reptile trapping and translocation.

(3) Installation of refugia to English Nature (2004) specification.

(4) Trapping of reptile species for c. 30 consecutive days (depending on species found and population sizes) and translocation of reptiles to an agreed receptor area (it is suggested this is located to the south of the site where there is extensive heathland habitat restoration taking place – this will retain local genetic integrity).

(5) Direct search of site post-trapping to facilitate vegetation stripping.

(6) Supervision of vegetation stripping within construction areas.

6.1.4 *Rhododendron*

A method statement will be produced to show the preferred options for dealing with the material. This should be approved by the Environment Agency before works commence. Prior to commencement, a Rhododendron survey should be carried out to map out presence and to ensure that there is no risk of spreading the species because of the development works. Once complete a strategy for dealing with Rhododendron material should be produced - the plant material will need to be excavated and disposed of in accordance with best practice.

6.2 Enhancement and Compensation

Recommendations are made for habitat and species enhancement and compensation the details of which should be incorporated into a Habitat Management Plan for the site. The Plan could be conditioned. The proposed layout of the development is shown on Drawing No. CGDC-GAL-SP-DR-A-1002 R01 (Grimshaw Architects).

6.2.1 *Habitat enhancement and compensation*

The proposed development will retain 385 m² of heath, 160 m² of grass/ruderal, and 1455 m² of scrub habitat (Table 1). It is proposed that the scrub habitat is enhanced through management to heath, which alongside the retained heath will equate to 1840 m² of this habitat within the development site. There would be a loss of 378 m² of heath, however with appropriate management the retained and new heath habitat can be of high quality. Enhancement of the scrub areas can utilise heather seed, brash, and topsoil removed from the footprint of the proposed development.

The existing and proposed habitat areas are provided in Table 1. These figures were inputted into the Defra Biodiversity Metric calculator (Version 2.0) as recommended by Cornwall Council¹⁸. The results of the Biodiversity Metric (Table 2) show a 59.99% net loss in habitat units.

Further meaningful habitat creation within the site is extremely limited, however options such as green or brown roofs, and grasscrete parking could be explored. Nonetheless such measures would be expected to demonstrate a low level of biodiversity value. It is recommended that offsite habitat compensation is considered. Although this is not possible within the restoration site there are nearby sites, for example to the immediate east, that have large areas of bare ground ideal for heath creation. The matter of offsite habitat compensation can be resolved within Reserved Matters.

¹⁸ The Defra Biodiversity Metric calculator is a beta version and has not been fully ratified.

Table 2. Results of the Biodiversity Metric for the site.

On-site baseline	<i>Habitat units</i>	5.63
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site post-intervention (Including habitat retention, creation, enhancement & succession)	<i>Habitat units</i>	2.25
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Off-site baseline	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Off-site post-intervention (Including habitat retention, creation, enhancement & succession)	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total net unit change (including all on-site & off-site habitat retention/creation)	<i>Habitat units</i>	-3.38
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total net % change (including all on-site & off-site habitat creation + retained habitats)	<i>Habitat units</i>	-59.99%
	<i>Hedgerow units</i>	0.00%
	<i>River units</i>	0.00%

6.2.2 Species enhancement

It is recommended that enhancement measures are provided within the proposal site for roosting bats, breeding birds, and herptiles. At present the site has a paucity of features suitable for breeding, shelter, and hibernation.

Roosting bats

A selection of boxes could be erected on retained trees along the north boundary to provide roost provision for bats. It is suggested that 4 no. boxes could be erected. Boxes should be selected for their durability e.g. woodcrete boxes, capability to provide roosting opportunities for a range of bat species, and should include provision for both summer and winter roosting. An alternative would be to place integral bat boxes into the fabric of the building/s.

Breeding birds

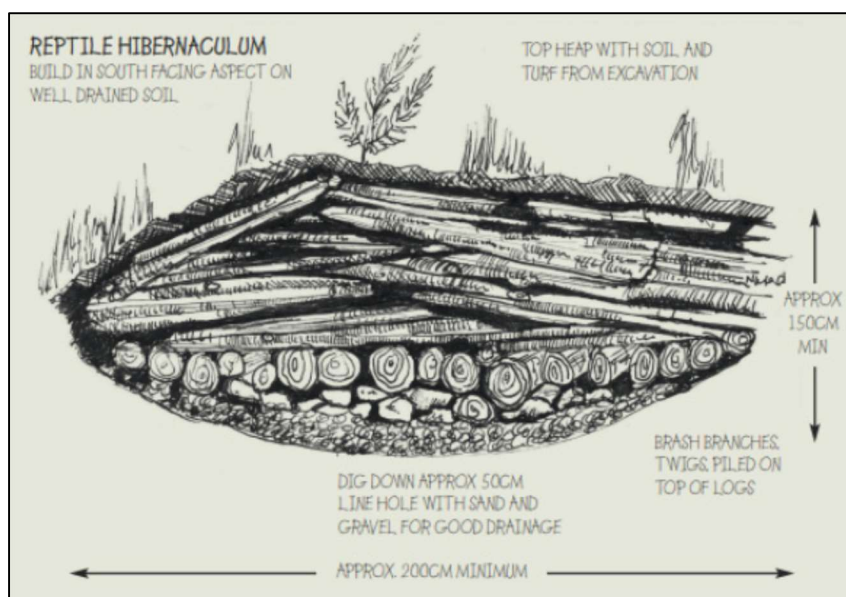
A range of boxes could be erected on retained trees or on the proposed building/s to provide breeding opportunities for birds. The boxes should target Priority species which are known to occur within the area e.g. dunnock, finches, sparrow, thrush, and tawny owl. It is suggested that 8 no. boxes could be erected (including 1 no. boxes for owls).

Herptiles

Two no. hibernaculum could be created within the retained/enhanced heath habitats to encourage reptiles.

To create a hibernaculum an underground chamber would need to be excavated to 2.0 - 4.0 m diameter, and 0.5 m depth, and lined with sand and gravel to improve drainage (Figure 5). The hole would be loosely back filled with stones, rocks and logs, and branches and brash placed over the top. The structure would be capped with soil and turfs from the excavation to form an insulating layer and to protect it from frost. Small gaps into the interior would be left to enable reptiles and amphibians to enter and exit the finished hibernaculum.

Figure 5. Example of a hibernacula design¹⁹.



Solitary bees

Four no. bee blocks/bricks²⁰ could be included in the building walls. If this is not possible four no. beepot planters or one no. beeposts could be considered. Bee blocks provide breeding opportunities for solitary bees, a species which are in rapid decline in the UK.

¹⁹ Julian, A.J. & Hand, N.K. (2018). ARG UK Advice Note 11. Managing Habitat for Adders: Advice for Land Managers. Amphibian and Reptile Groups of the UK.

²⁰ <https://www.greenandblue.co.uk/collections/shop-bee-houses/products/bees-block>

7.0 CLOSURE

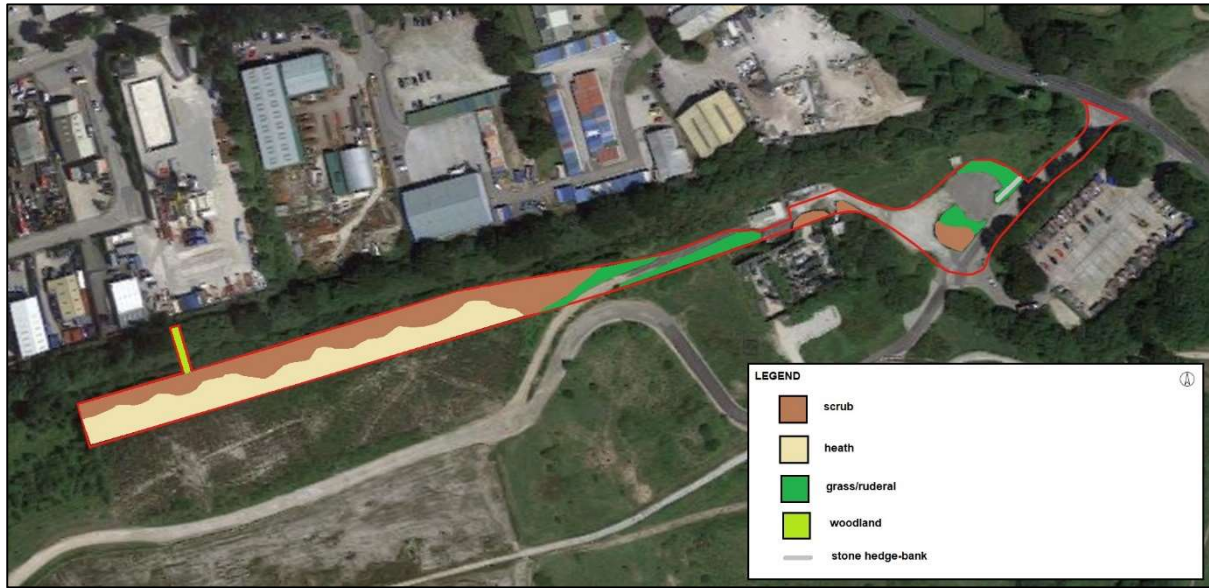
This report has been prepared by SWE Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

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DRAWING 1. PHASE 1 HABITAT MAP



APPENDIX A. 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

Bird				
Accipiter nisus	Sparrowhawk	2	2013 - 2013	Protected, Priority
Alauda arvensis	Skylark	1	2012 - 2012	Protected, Priority
Buteo buteo	Buzzard	1	2013 - 2013	Protected
Carduelis carduelis	Goldfinch	3	2009 - 2015	Protected
Chloris chloris	Greenfinch	1	2013 - 2013	Protected, Priority
Columba palumbus	Common Wood Pigeon	3	2013 - 2015	Protected
Corvus corone	Carrion Crow	2	2013 - 2013	Protected
Cyanistes caeruleus	Blue Tit	4	2009 - 2015	Protected
Dendrocopos major	Great Spotted Woodpecker	2	2000 - 2013	Protected
Erithacus rubecula	Robin	4	2009 - 2015	Protected
Gallinago gallinago	Snipe	1	2008 - 2008	Protected, Priority, Local Priority
Gallinula chloropus	Moorhen	2	2010 - 2013	Protected, Priority
Garrulus glandarius	Jay	2	2013 - 2013	Protected
Hirundo rustica	Swallow	1	1998 - 1998	Protected
Larus argentatus	Herring Gull	1	2013 - 2013	Protected, Priority
Motacilla alba subsp. yarrellii	Pied Wagtail	2	1989 - 2013	Protected
Motacilla cinerea	Grey Wagtail	1	2013 - 2013	Protected, Priority
Parus major	Great Tit	4	2009 - 2015	Protected
Passer domesticus	House Sparrow	2	2009 - 2013	Protected, Priority
Passer montanus	Tree Sparrow	1	2013 - 2013	Protected, Priority
Periparus ater	Coal Tit	3	2012 - 2013	Protected
Pica pica	Magpie	3	1995 - 2013	Protected
Picus viridis	Green Woodpecker	2	1988 - 2013	Protected

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<i>Prunella modularis</i>	Dunnock	1	2009 - 2009	Protected, Priority
<i>Pyrrhula pyrrhula</i>	Bullfinch	2	2013 - 2019	Priority
<i>Rallus aquaticus</i>	Water Rail	1	2010 - 2010	Protected, Local Priority
<i>Regulus ignicapilla</i>	Firecrest	1	2017 - 2017	Protected
<i>Regulus regulus</i>	Goldcrest	2	2012 - 2013	Protected
<i>Scolopax rusticola</i>	Woodcock	2	1997 - 2002	Protected, Priority
<i>Spinus spinus</i>	Siskin	2	2013 - 2015	Protected, Local Priority
<i>Strix aluco</i>	Tawny Owl	2	2012 - 2012	Protected, Priority
<i>Sylvia curruca</i>	Lesser Whitethroat	1	2000 - 2000	Local Priority
<i>Tringa nebularia</i>	Greenshank	1	2015 - 2015	Protected, Priority, Local Priority
<i>Troglodytes troglodytes</i>	Wren	1	2013 - 2013	Protected
<i>Turdus merula</i>	Blackbird	3	2009 - 2013	Protected
<i>Turdus philomelos</i>	Song Thrush	1	2013 - 2013	Protected, Priority
<i>Turdus torquatus</i>	Ring Ouzel	1	2003 - 2003	Protected, Priority
<i>Tyto alba</i>	Barn Owl	4	1986 - 2018	Protected, Local Priority

Conifer

<i>Larix kaempferi</i>	Japanese Larch	1	2012 - 2012	Non-Native
<i>Picea abies</i>	Norway Spruce	1	1995 - 1995	Non-Native
<i>Pinus contorta</i>	Lodgepole Pine	1	1995 - 1995	Non-Native
<i>Pinus nigra</i>	Austrian Pine	2	1995 - 2003	Non-Native
<i>Pinus radiata</i>	Monterey Pine	1	2011 - 2011	Non-Native

Flowering Plant

<i>Acanthus mollis</i>	Bear's-breech	2	2012 - 2012	Non-Native
<i>Acer pseudoplatanus</i>	Sycamore	12	1990 - 2010	Non-Native
<i>Aegopodium podagraria</i>	Ground-elder	1	1994 - 1994	Non-Native
<i>Alchemilla mollis</i>	Garden Lady's-mantle	5	2003 - 2012	Non-Native
<i>Allium triquetrum</i>	Three-cornered Garlic	4	1990 - 2012	Protected, Non-Native
<i>Alnus incana</i>	Grey Alder	2	1995 - 2010	Non-Native
<i>Arum italicum</i> subsp. <i>italicum</i>	n/a	2	1966 - 1966	Non-Native
<i>Avena fatua</i>	Wild-oat	1	1970 - 1970	Non-Native

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<i>Barbarea verna</i>	American Winter-cress	1	1995 - 1995	Non-Native
<i>Beta vulgaris</i> subsp. <i>vulgaris</i>	Root Beet	1	1976 - 1976	Non-Native
<i>Briza maxima</i>	Greater Quaking-grass	2	1976 - 1976	Non-Native
<i>Bromus sterilis</i>	Barren Brome	1	2012 - 2012	Non-Native
<i>Buddleja davidii</i>	Butterfly-bush	14	1995 - 2010	Non-Native
<i>Calluna vulgaris</i>	Heather	34	1976 - 2012	Priority
<i>Calystegia silvatica</i>	Large Bindweed	4	1995 - 2012	Non-Native
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	2	2008 - 2010	Non-Native
<i>Capsella rubella</i>	Pink Shepherd's-purse	1	1976 - 1976	Non-Native
<i>Castanea sativa</i>	Sweet Chestnut	1	2008 - 2008	Non-Native
<i>Centaurea diluta</i>	Lesser Star-thistle	1	1968 - 1968	Non-Native
<i>Centunculus minimus</i>	Chaffweed	1	2003 - 2003	Priority, Local Priority
<i>Chelidonium majus</i>	Greater Celandine	1	2011 - 2011	Non-Native
<i>Chenopodium ficifolium</i>	Fig-leaved Goosefoot	1	1975 - 1975	Non-Native
<i>Cordyline australis</i>	Cabbage-palm	2	1995 - 2010	Non-Native
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster	2	2003 - 2003	Protected, Non-Native
<i>Cotoneaster integrifolius</i>	Entire-leaved Cotoneaster	9	1994 - 2008	Protected, Non-Native
<i>Cotoneaster simonsii</i>	Himalayan Cotoneaster	3	1994 - 2010	Protected, Non-Native
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia	15	1994 - 2012	Protected, Non-Native
<i>Cucurbita pepo</i>	Marrow	1	1975 - 1975	Non-Native
<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax	6	1990 - 2008	Non-Native
<i>Echinochloa frumentacea</i>	White Millet	2	1970 - 1970	Non-Native
<i>Epilobium brunnescens</i>	New Zealand Willowherb	13	1995 - 2008	Non-Native
<i>Epilobium ciliatum</i>	American Willowherb	14	1962 - 2012	Non-Native
<i>Erica cinerea</i>	Bell Heather	18	1976 - 2010	Priority
<i>Erica lusitanica</i>	Portuguese Heath	1	2008 - 2008	Non-Native
<i>Erica tetralix</i>	Cross-leaved Heath	6	1976 - 2019	Priority
<i>Erigeron karvinskianus</i>	Mexican Fleabane	1	2012 - 2012	Non-Native
<i>Eschscholzia californica</i>	Californian Poppy	2	1976 - 1981	Non-Native
<i>Euphorbia helioscopia</i>	Sun Spurge	1	2008 - 2008	Non-Native

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<i>Euphorbia lathyris</i>	Caper Spurge	1	1970 - 1970	Non-Native
<i>Euphorbia peplus</i>	Petty Spurge	1	2012 - 2012	Non-Native
<i>Euphrasia micrantha</i>	Common Slender Eyebright	1	2008 - 2008	Priority
<i>Euphrasia nemorosa</i>	Common Eyebright	4	1995 - 2010	Priority
<i>Euphrasia tetraquetra</i>	an Eyebright	3	1995 - 2003	Priority
<i>Fallopia japonica</i>	Japanese Knotweed	32	1994 - 2010	Protected, Non-Native
<i>Fragaria vesca</i>	Wild Strawberry	14	1995 - 2016	Priority
<i>Fumaria officinalis</i> subsp. <i>officinalis</i>	n/a	1	1983 - 1983	Non-Native
<i>Fumaria purpurea</i>	Purple Ramping-fumitory	1	1983 - 1983	Protected, Priority, Local Priority
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	7	1990 - 2012	Non-Native
<i>Geranium endressii</i>	French Crane's-bill	2	1976 - 1976	Non-Native
<i>Gunnera tinctoria</i>	Giant-rhubarb	1	2003 - 2003	Protected, Non-Native
<i>Helianthus annuus</i>	Sunflower	1	1970 - 1970	Non-Native
<i>Helianthus tuberosus</i>	Jerusalem Artichoke	1	1969 - 1969	Non-Native
<i>Hesperantha coccinea</i>	Kaffir Lily	2	2010 - 2010	Non-Native
<i>Hesperis matronalis</i>	Dame's-violet	1	1976 - 1976	Non-Native
<i>Hordeum distichon</i>	Two-rowed Barley	1	1970 - 1970	Non-Native
<i>Hyacinthoides hispanica</i>	Spanish Bluebell	4	1963 - 2003	Non-Native
<i>Hyacinthoides non-scripta</i>	Bluebell	9	1990 - 2008	Protected
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> = <i>H. x massartiana</i>	Bluebell	3	2003 - 2008	Non-Native
<i>Hypericum calycinum</i>	Rose-of-Sharon	1	1995 - 1995	Non-Native
<i>Jasione montana</i>	Sheep's-bit	1	2010 - 2010	Priority
<i>Juncus tenuis</i>	Slender Rush	1	2012 - 2012	Non-Native
<i>Lamium hybridum</i>	Cut-leaved Dead-nettle	1	2008 - 2008	Non-Native
<i>Lamium purpureum</i>	Red Dead-nettle	1	2008 - 2008	Non-Native
<i>Lathyrus latifolius</i>	Broad-leaved Everlasting-pea	1	1961 - 1961	Non-Native
<i>Laurus nobilis</i>	Bay	3	1977 - 1995	Non-Native
<i>Lepidium didymum</i>	Lesser Swine-cress	2	1995 - 2008	Non-Native

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<i>Lepidium sativum</i>	Garden Cress	1	1970 - 1970	Non-Native
<i>Leucanthemum lacustre</i> x <i>maximum</i> = <i>L. x superbum</i>	Shasta Daisy	1	2012 - 2012	Non-Native
<i>Ligustrum ovalifolium</i>	Garden Privet	2	2008 - 2010	Non-Native
<i>Limnanthes douglasii</i>	Meadow-foam	1	1976 - 1976	Non-Native
<i>Linaria maroccana</i>	Annual Toadflax	1	1981 - 1981	Non-Native
<i>Linaria purpurea</i>	Purple Toadflax	1	1964 - 1964	Non-Native
<i>Lysimachia punctata</i>	Dotted Loosestrife	1	1995 - 1995	Non-Native
<i>Malus pumila</i>	Apple	1	2003 - 2003	Non-Native
<i>Matricaria discoidea</i>	Pineappleweed	2	2008 - 2010	Non-Native
<i>Melilotus altissimus</i>	Tall Melilot	1	1976 - 1976	Non-Native
<i>Mentha spicata</i>	Spear Mint	2	1962 - 2008	Non-Native
<i>Mentha spicata</i> x <i>suaveolens</i> = <i>M. x villosa</i>	Apple-mint	2	1964 - 2008	Non-Native
<i>Mentha suaveolens</i>	Round-leaved Mint	1	2012 - 2012	Priority
<i>Oenothera glazioviana</i>	Large-flowered Evening-primrose	6	1994 - 2010	Non-Native
<i>Oxalis exilis</i>	Least Yellow-sorrel	5	2003 - 2004	Non-Native
<i>Pedicularis sylvatica</i>	Lousewort	13	1995 - 2008	Priority
<i>Pentaglottis sempervirens</i>	Green Alkanet	1	2011 - 2011	Non-Native
<i>Petasites fragrans</i>	Winter Heliotrope	3	1995 - 2010	Non-Native
<i>Picris echioides</i>	Bristly Oxtongue	2	2003 - 2012	Non-Native
<i>Polygala serpyllifolia</i>	Heath Milkwort	1	2008 - 2008	Priority
<i>Polygonum arenastrum</i>	Equal-leaved Knotgrass	1	2010 - 2010	Non-Native
<i>Populus balsamifera</i>	Eastern Balsam-poplar	1	1993 - 1993	Non-Native
<i>Prunus cerasus</i>	Dwarf Cherry	1	2003 - 2003	Priority
<i>Prunus laurocerasus</i>	Cherry Laurel	1	2010 - 2010	Non-Native
<i>Pseudosasa japonica</i>	Arrow Bamboo	1	1995 - 1995	Non-Native
<i>Quercus ilex</i>	Evergreen Oak	1	2010 - 2010	Non-Native
<i>Reseda luteola</i>	Weld	4	1995 - 2004	Non-Native
<i>Rhododendron ponticum</i>	n/a	3	1995 - 2008	Protected, Non-Native
<i>Ribes nigrum</i>	Black Currant	1	2011 - 2011	Non-Native

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<i>Ribes uva-crispa</i>	Gooseberry	1	2003 - 2003	Non-Native
<i>Salix euxina x alba = S. x fragilis</i>	Hybrid Crack-willow	1	2008 - 2008	Non-Native
<i>Saponaria officinalis</i>	Soapwort	3	2003 - 2014	Non-Native
<i>Scrophularia scorodonia</i>	Balm-leaved Figwort	1	2008 - 2008	Priority, Local Priority
<i>Sedum album</i>	White Stonecrop	3	1962 - 1977	Non-Native
<i>Sedum spectabile</i>	Butterfly Stonecrop	1	2010 - 2010	Non-Native
<i>Setaria pumila</i>	Yellow Bristle-grass	1	1970 - 1970	Non-Native
<i>Setaria viridis</i>	Green Bristle-grass	1	1975 - 1975	Non-Native
<i>Sinapis arvensis</i>	Charlock	1	2008 - 2008	Non-Native
<i>Smyrniolum olusatrum</i>	Alexanders	3	1990 - 2008	Non-Native
<i>Solanum tuberosum</i>	Potato	1	1995 - 1995	Non-Native
<i>Soleirolia soleirolii</i>	Mind-your-own-business	3	1995 - 2010	Non-Native
<i>Spergula arvensis</i>	Corn Spurrey	1	2008 - 2008	Priority, Local Priority
<i>Stachys arvensis</i>	Field Woundwort	1	2008 - 2008	Priority, Local Priority
<i>Syringa vulgaris</i>	Lilac	1	2008 - 2008	Non-Native
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	1	2010 - 2010	Non-Native
<i>Tropaeolum majus</i>	n/a	1	2012 - 2012	Non-Native
<i>Urtica urens</i>	Small Nettle	1	1983 - 1983	Non-Native
<i>Valerianella carinata</i>	Keeled-fruited Cornsalad	1	2011 - 2011	Non-Native
<i>Verbena officinalis</i>	Vervain	1	2012 - 2012	Non-Native
<i>Veronica agrestis</i>	Green Field-speedwell	2	2004 - 2004	Non-Native
<i>Veronica hederifolia</i>	Ivy-leaved Speedwell	3	1990 - 2012	Non-Native
<i>Veronica officinalis</i>	Heath Speedwell	19	1995 - 2010	Priority
<i>Veronica persica</i>	Common Field-speedwell	5	1995 - 2010	Non-Native
<i>Vicia sativa subsp. segetalis</i>	Common Vetch	1	2003 - 2003	Non-Native
<i>Vinca major</i>	Greater Periwinkle	1	2012 - 2012	Non-Native
<i>Viola lactea</i>	Pale Dog-violet	3	1998 - 2008	Protected, Priority, Local Priority
<i>Viola lutea x tricolor x altaica = V. x wittrockiana</i>	Garden Pansy	1	2010 - 2010	Non-Native

Insect - Butterfly

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Coenonympha pamphilus	Small Heath	4	1997 - 2019	Protected, Priority
Erynnis tages	Dingy Skipper	1	1989 - 1989	Protected, Priority
Hipparchia semele	Grayling	9	1997 - 2019	Protected, Priority
Plebejus argus	Silver-studded Blue	13	1997 - 2019	Protected, Priority, Local Priority

Insect - Dragonfly (Odonata)

Ischnura pumilio	Scarce Blue-tailed Damselfly	12	1979 - 1997	Priority, Local Priority
Orthetrum cancellatum	Black-tailed Skimmer	4	1999 - 2019	Local Priority
Sympetrum sanguineum	Ruddy Darter	2	1990 - 1990	Local Priority

Insect - Hymenopteran

Philanthus triangulum	Bee Wolf	2	2004 - 2004	Priority
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Insect - Moth

Epiphyas postvittana	Light Brown Apple Moth	1	2016 - 2016	Non-Native
Nymphula diminutalis	Small Brown China-mark	4	1994 - 2012	Non-Native
Psychoides filicivora	Fern Smut	1	1996 - 1996	Non-Native

Insect - Stick Insect (Phasmida)

Acanthoxyla prasina subsp. inermis	Unarmed Stick-insect	1	2017 - 2017	Local Priority
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Lichen

Agonimia repleta	n/a	3	2001 - 2003	Priority, Local Priority
Bacidia saxenii	n/a	2	2001 - 2003	Priority
Cladonia cariosa	n/a	2	2001 - 2003	Priority
Cladonia ciliata var. ciliata	n/a	1	2001 - 2001	Protected
Cladonia coccifera s. lat.	Scarlet-Cup Lichen	1	1976 - 1976	Priority
Cladonia portentosa	n/a	4	2001 - 2003	Protected
Micarea coppinsii	n/a	4	2001 - 2003	Priority
Moelleropsis nebulosa	n/a	2	2001 - 2003	Priority
Opegrapha saxigena	n/a	1	2001 - 2003	Priority
Parmelinopsis horrescens	n/a	2	2003 - 2003	Priority, Local Priority
Parmelinopsis minarum	New Forest Parmelia	3	2001 - 2003	Protected, Priority, Local Priority

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Rinodina biloculata	n/a	1	2001 - 2001	Priority, Local Priority
Steinia geophana	n/a	2	2001 - 2003	Priority
Stereocaulon leucophaeopsis	n/a	3	2001 - 2003	Priority
Stereocaulon nanodes	n/a	4	2001 - 2003	Priority
Usnea esperantiana	n/a	3	2001 - 2003	Priority, Local Priority
Liverwort				
Cephaloziella nicholsonii	Greater Copperwort	11	1995 - 2009	Protected, Priority, Local Priority
Moss				
Bryum pallescens	Tall-clustered Thread-moss	8	1995 - 1998	Local Priority
Campylopus introflexus	Heath Star Moss	2	1995 - 1998	Non-Native
Pogonatum aloides	Aloe Haircap	2	1995 - 1995	Local Priority
Pohlia andalusica	Gravel Thread-moss	4	2004 - 2004	Local Priority
Weissia controversa var. densifolia	n/a	2	1998 - 1998	Local Priority
Spider (Araneae)				
Alopecosa barbipes	n/a	2	2019 - 2019	Priority
Araneus angulatus	n/a	1	2019 - 2019	Priority
Argiope bruennichi	Wasp Spider	1	2019 - 2019	Non-Native
Terrestrial Mammal				
Erinaceus europaeus	West European Hedgehog	1	2017 - 2017	Protected, Priority, Local Priority
Meles meles	Badger	1	2000 - 2000	Protected, Local Priority
Mustela erminea	Stoat	1	2015 - 2015	Protected
Mustela nivalis	Weasel	1	1997 - 1997	Protected
Oryctolagus cuniculus	European Rabbit	3	1994 - 2019	Priority, Non-Native
Terrestrial Mammal - Bat (Chiroptera)				
Chiroptera	Bat	1	2005 - 2005	Protected, Priority
Nyctalus noctula	Noctule Bat	7	2001 - 2011	Protected, Priority, Local Priority
Pipistrellus	Pipistrelle Bat species	12	1999 - 2012	Protected, Local Priority
Pipistrellus pipistrellus	Common Pipistrelle	65	1999 - 2016	Protected, Local Priority

Hosted by



**Cornwall
Wildlife Trust**

Registered charity number: 214929



ERCCIS Data Search Report



Pipistrellus pygmaeus	Soprano Pipistrelle	6	1999 - 2005	Protected, Priority, Local Priority
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