



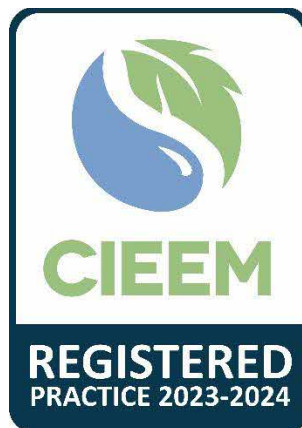
Ecological Impact Assessment Report (EcIA)

Highwood, Feock, Truro, Cornwall

Grid Reference: SW 8208 3758

3rd August 2023

Version 2



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Document Control:

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Client:	Ms Helen Ralston
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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 true and professional bona fide opinions."

Nicola Dyer	
Kim Jelbert	

Report Lifespan:

Ecological features can change over time, particularly if site management/ use changes. Typically, Ecological Impact Assessment Reports (EcIAs) are valid for 18 months (until January 2025).



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1.0 Non-Technical Summary

Ms Helen Ralston commissioned Plan for Ecology Ltd to undertake an Ecological Impact Assessment of land at Highwood, Feock, Cornwall, TR3 6RB (OS Grid Ref: SW 8208 3758) in May 2023. The client is seeking planning consent for construction of a boathouse/studio. This report describes and evaluates the results of Ecological Impact Assessment in accordance with the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and the CIEEM Guidelines for Ecological Impact Assessment (CIEEM, 2018).

The site, measuring c. 0.24 ha, includes a residential dwelling and associated garden located on the eastern banks of the Carrick Roads within the Fal Estuary complex in South Cornwall. The site includes a small boatyard and storage building adjacent to the estuary and a short section of the slipway.

The site lies adjacent to the Falmouth the Falmouth Bay and St Austell Special Protection Area (SPA) and within 23m of the Fal and Helford Special Area of Conservation (SAC), both of which are statutory wildlife sites of European importance. Within the site boundary, notable habitats include mixed woodland and priority hedgerow which are considered of local value; the hedgerow is legally protected. Notable species / species groups with potential to occur on-site include bats (roosting, foraging and commuting), breeding birds, reptiles, hedgehog, badger and invertebrates. Notable species associated with the adjacent estuary include estuarine birds, otter, marine mammals, fish and non-vascular plants. Many of the species recorded are legally protected. Ecological constraints and opportunities associated with the site are detailed on the accompanying 'Ecological Constraints and Opportunities Plan' (ECOP) in Map 1 below.

The proposed development is located on the footprint of the existing boatyard and store and will not extend beyond Mean High Water. However, the development could potentially indirectly impact the two European sites and affect on-site and off-site habitats and species through habitat degradation, noise, vibration and artificial lighting.

Mitigation recommendations to address potential impacts are summarised below:

- Designated sites: Carry out a Habitat Regulations Assessment (HRA) to fully assess the impacts of the development on European sites, as required by the Conservation of Habitats and Species Regulations 2017.
- All habitats and species: Prepare and implement a Construction Environmental Management Plan (CEMP) to demonstrate the measures taken to avoid impacts to habitats and species, including minimising noise, vibration, lighting, dust, and the risk of runoff during the construction phase.
- Mixed woodland (loss and degradation): Demarcate an appropriate access route through the site to the construction area for the transport of machinery and materials. The route should be confined to the existing pathway through the woodland to avoid disturbance to the woodland ground flora and damage to tree root protection areas. If there is any localised disturbance adjacent to the access route during construction, restore the woodland ground flora by rectifying any areas of compacted soil and reseeding with a suitable native woodland seed mix.
- Hedgerow (loss and degradation): Protect the priority hedgerow on the southwestern boundary by maintaining a development-free 2m wide hedge buffer. As the hedgerow lies



within the mixed woodland, it is unlikely to be disturbed providing that the demarcated construction route is adhered to.

- Bats (roosting): If any tree works are proposed e.g. reduction or felling, a preliminary ground level roost assessment by a licenced bat ecologist will be required for the planning application to identify any potential tree roosts. If any potential roosts are impacted, additional dusk emergence surveys will be required to ascertain the current status of the roost; these must be carried out between May – September.
- Bats (foraging and commuting): Further bat activity surveys are not required due to the small size of the site and the minor impact of the development on foraging and commuting habitats. Any proposed artificial lighting must be minimised and directed away from the site boundaries and the estuary.
- Badger and hedgehog: Any excavated pits associated with the proposed development site 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 gap below to permit movement of faunal species.
- Hedgehog: Remove vegetation carefully to avoid hedgehog injury (see reptiles below).
- Birds: If any trees or shrubs need reducing/felling, cut back woody vegetation in the winter (October to February inclusive), outside the main bird breeding season. If this is not feasible, carry out an ecological watching brief to check vegetation prior to works to avoid disturbance to nesting birds. Mitigate for any minor loss of nesting habitat by installing a bird box within retained trees.
- Reptiles: If clearance of shrubs and long grassland is required, cut woody vegetation to 200mm above ground level during the winter (when birds will not be nesting) and undertake ground works during spring/ summer (May – early October) when reptiles are active and able to move away from disturbance.
- Invertebrates, vascular and non-vascular plants: Follow mitigation recommendations for habitats above.
- Invasive plants: Three-cornered leek, wall cotoneaster and Japanese rose are present on-site. These species are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) making it an offence to cause them to spread to the wild. Three-cornered leek is abundant within the woodland and so any vegetation disturbance alongside the access path could cause this species to spread. Follow the recommendations for Mixed Woodland above to minimise this risk. Eradication of these species represents an opportunity to increase the biodiversity value of the site and help protect semi-natural habitats within the immediate vicinity of the site.
- Marine species: Protect marine species associated with the adjacent estuary by minimising the risk of water contamination. Follow the Environment Agency pollution prevention guidance PPG5 on working on and near water to avoid the risk of water contamination during the construction phase (Environment Agency, 2007). These former guidelines have been withdrawn because the Environment Agency no longer provides advice but they are still relevant.



- Implement the CEMP to minimise construction noise, vibration and lighting and avoid disturbance to marine species. Avoid any direct lighting onto the estuary.
- Further surveys: A Habitat Regulations Assessment of the potential impacts to the European sites will be required for the planning application. Providing the mitigation recommendations provided in this report are implemented, no further protected species will be necessary.
- Biodiversity Enhancements: There is opportunity to incorporate features to enhance aspects of the site for biodiversity. See the accompanying 'Ecological Constraints and Opportunities Plan' (ECOP) (Map 1 below).

The baseline statement of predicted change (habitat losses and gains) resulting from the proposed development is summarised below:

Baseline statement of predicted change (ecologically valuable habitat losses and gains):

Ecological Receptor	Ecological Value	Loss (approximate)	Gain (approximate)
Mixed woodland (w1h)	Local value	Up to 100m ² (disturbance during construction)	Up to 100m ² (remediated following disturbance)
Hedgerow (priority) (h2a)	Local value	0km	0m

Providing the mitigation recommendations provided in this report and the Habitat Regulations Assessment are implemented, the proposed development will have no residual impacts.



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

Opportunities: Install an integral bat box in the structure of the new boathouse/studio

Opportunities: Add bird boxes to retained trees in the woodland

Opportunities: Install a bee brick in the fabric of the new boathouse/ studio or, alternatively, provide a bee post within the garden.

Opportunities: Provide a log pile within the garden for hedgehogs, reptiles and invertebrates

Constraint: A Habitat Regulations Assessment will be required for the planning application to fully assess impacts to European sites: Fal and Helford SAC and Falmouth Bay to St Austell Bay SPA due to their proximity to the development.

Constraint: Carry out further tree roost inspections if any works to trees are proposed (reduction, felling etc).

Constraint: If any trees or shrubs need reducing/felling, cut back woody vegetation outside the main bird breeding season (October to February inclusive or under an ecological watching brief.

Constraint: Protect the woodland and priority hedge by demarcating an access route through the site to the construction area which follows existing paths where possible. Restore any disturbed areas with a native woodland seed mix.

Constraint: If any vegetation clearance is required, avoid inuring reptiles by cutting back vegetation in two stages: cut woody vegetation to 200mm above ground level during the winter (when birds will not be nesting) and undertake ground works during spring/ summer (May - September/ early October)

Constraint: Take precautionary measures to avoid the spread of non-native invasive plants which require legal control, especially three-cornered leek which is abundant in the woodland.

Constraint: Avoid water contamination of the estuary during construction (and impacts to associated habitats and the species) by following Environment Agency guidance on working near water. The design of the new boathouse/studio must avoid discharge of grey water into the estuary.

Opportunities: Eradicate/control non-native invasive plant species to enhance the ecological value of the site

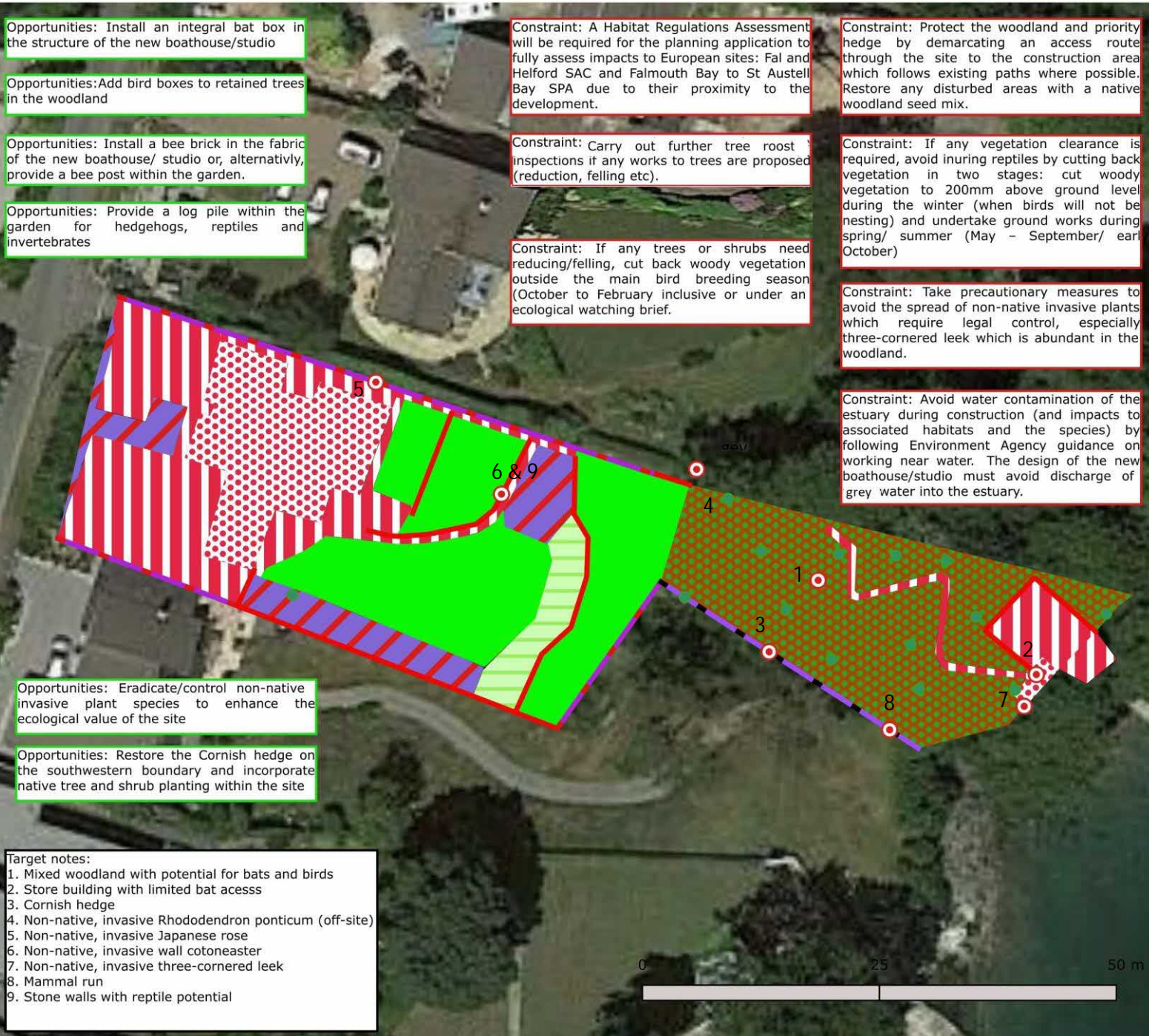
Opportunities: Restore the Cornish hedge on the southwestern boundary and incorporate native tree and shrub planting within the site

- Target notes:
1. Mixed woodland with potential for bats and birds
 2. Store building with limited bat access
 3. Cornish hedge
 4. Non-native, invasive *Rhododendron ponticum* (off-site)
 5. Non-native, invasive Japanese rose
 6. Non-native, invasive wall cotoneaster
 7. Non-native, invasive three-cornered leek
 8. Mammal run
 9. Stone walls with reptile potential

Map 1: Highwood, Feock

UK Habitat Distribution & Ecological Constraints & Opportunities Plan (ECOP)

- Target Note
- Individual trees
- h2a - Hedgerow (priority)
- h2b - Hedgerow (other)
- u1e - Built linear feature
- g3c Other neutral grassland
- g4 - Modified grassland
- h3 - Dense scrub
- u1b - Developed, sealed surface
- u1b5 - Buildings



Date:
2023_06_19_ND



3.0 Introduction

3.1 Background & Purpose of Survey

Ms Helen Ralston commissioned Plan for Ecology Ltd to undertake an Ecological Impact Assessment of land at Highwood, Feock, Cornwall, TR3 6RB (OS Grid Ref: SW 8208 3758) in May 2023. The client is seeking planning consent for construction of a boathouse/studio on the site of an existing boat store. The proposed site layout is provided in Appendix 1. A location plan showing the designated sites of nature conservation importance within a 1 km radius of the site is provided at Appendix 2. The habitat distribution is shown on Map 1 above.

3.2 Site Location & Description

The site is located at Highwood at Restronguet Point, c. 0.8km southwest of the village of Feock and c. 6.5km south of Truro, on the south coast of Cornwall. The site sits on the western bank of the Carrick Roads, within the Fal Estuary complex. A plan showing the location of the site and of designated sites of nature conservation importance is shown at Appendix 2. The site covers 0.24ha and comprises a single residential dwelling with associated gardens that extend westwards to the banks of the estuary. The garden comprises areas of hardstanding, amenity grassland, and introduced shrub habitats. Towards the east, the garden slopes down to the foreshore and supports scattered trees over rough grassland. A small storage building, boatyard and part of a slipway are present where the site meets the foreshore. The entire site is located above the Mean High Water mark.

Beyond the site boundary, neighbouring residential properties with large mature gardens adjoin the site to the north, south and west. The estuary directly adjoins the site to the east. Restronguet Point is a promontory within the Carrick Roads and surrounded by seawater on three sides, with mixed farmland beyond to the north.

3.3 Proposed Site Plans

The applicant seeks planning consent for the construction of a boat house/ studio at the south-eastern boundary of the site, on the footprint of the boatyard and storage building (see Appendix 1). The boatyard and storage building will be retained and the studio will be built above. The studio will be a single room, built of timber walls on top of the existing stone retaining walls, with a zinc roof and with windows and a wraparound balcony overlooking the estuary on two aspects.

The studio will not provide stand-alone residential accommodation and there are no plans to install any facilities that require connection to drainage. Two wall-mounted downlights are proposed on the south-east elevation of the building but there will be no other external lighting.

It is proposed to construct the building by bringing materials and machinery through the garden, using existing pathways where possible; the slipway will not be used. The access route is shown in Appendix 1. It is anticipated that the construction storage area/compound will be located on hard standing at the site entrance. The proposed area to be included within the red line planning boundary accommodates the access route, storage area/compound and construction area, covering c. 0.08ha.



3.4 Project Administration

Site Name:	Highwood, Feock, Cornwall, TR3 6RB
OS Grid Reference:	SW 8208 3758
Client:	Ms Helen Ralston
Planning Authority:	Cornwall Council
Planning Reference:	-
Report Reference Number:	P4E3019
Site proposals:	Planning consent for construction of a boathouse/studio.
Survey Date:	24 th May and 3 rd August 2023
Surveyor & Licence Numbers:	Nicola Dyer BSc (Hons) MSc MCIEEM (Bat licence no: 2019-10444-CLS-CLS)

4.0 Methodology

This Ecological Impact Assessment (EcIA) 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); the CIEEM Guidelines for Ecological Impact Assessment (CIEEM, 2018); and BS42020-2013 Biodiversity – Code of Practice for Planning and Development (British Standard, 2013).

The EcIA includes a desk study, site surveys and an EcIA report to describe and evaluate the ecological interest of a site, assess the potential impacts that the proposed scheme may have on designated sites, habitats and species, and identify recommendations to avoid, mitigate and/or compensate for these impacts.

4.1 Desk study

The desk study is a search of all ecological records and nature conservation site designations held by the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS, to 2023) within a 1km radius, centred on the site (Appendix 1). The distance between the site boundary and nearby European designated sites was measured using the Multi Agency Geographic Information for the Countryside (MAGIC) website (DEFRA, 2023) to determine whether the site falls within a European site Zone of Influence.

4.2 Site survey

Phase 1 survey

A Phase 1 survey of land was carried out on 24th May 2023 within the survey area boundary provided by Laurence Associates. The survey identified the habitats present according to the UK Habitat Classification system (Butcher et al, 2020) and their associated plant species, and assessed the potential of the site to support protected species and species of conservation concern, as well as plant species listed on Schedule 9 WCA 1981 (as amended) and as injurious (harmful) under the Weeds Act (1959). Where access to adjacent land was available, the presence of non-native invasive plant species listed on Schedule 9 of the WCA 1981 (as amended) within 7m of the site boundary, and likely badger setts within 30m of the site boundary, were noted. However, a detailed survey for these species outside the site boundary was not undertaken.



Likely access routes and construction storage areas were also surveyed for the purpose of identifying ecological constraints. The location of a possible access route is shown Map 1.

Survey data was collected in the field and digitized using QGIS.

Preliminary Bat and Bird Assessment

A Preliminary Bat and Bird Assessment was carried out on 3rd August 2023 to assess the suitability of the on-site storage building to support roosting bats and roosting/nesting birds according to the guidance provided by the Bat Conservation Trust (Collins, 2016) and the Barn Owl Trust (2012). A high-powered torch was used to illuminate all accessible areas of the building to search for signs of bats and birds including droppings, staining, feeding remains, bird nests, barn owl pellets and liming.

4.3 Evaluation

All habitats and species:

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, 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.

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

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

- Designated Sites and Features e.g., Special Protection Areas (SPA), Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI); ecologically important hedgerows etc.);

- Biodiversity Value (use of Biodiversity Action Plans and local development plans);

- Potential Value;

- Secondary or Supporting Value;

- Social or Economic Value; and

- Legal Designation.

Based on the criteria above and professional judgement, 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 (Europe), National (UK), Regional (Southwest), County, District, Parish, Local, Zone of Influence and Negligible.

This evaluation method identifies 'important ecological features' (considered to be of Local value and above) which could potentially be affected by the proposed development.



Potential Bat Roosts:

Potential bat roosts identified during the visual inspection of the building were categorised as to their suitability in accordance with the Bat Conservation Trust's 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.

4.4 Impact assessment

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).

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. 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).

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.

4.5 Mitigation recommendations

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.



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.

4.6 Biodiversity Net Gain

This report identifies potential biodiversity enhancements that can be included in the scheme which would contribute to a Biodiversity Net Gain (BNG).

4.7 Limitations

Phase 1 Surveys can be undertaken at any time of year. May is an optimal time of year to undertake vegetation surveys and there are no seasonal limitations.

The EcIA is based on the information provided by Laurence Associates and Shaun Tanner Architecture and Planning, including the site survey boundary and details of the proposed development.

Where access to land outside of the survey area boundary was not available, the land was viewed from adjacent accessible land or a public right of way/ highway. Absence of badger setts and invasive plant species in these areas cannot be assumed.

Dense vegetation associated with scrub and hedges has some potential to obscure features of ecological importance and it is possible that badger setts may not have been recorded.

Weather conditions during the survey were in line with seasonal norms. There are no limitations to the survey associated with weather conditions.

A search for Tree Preservation Orders (TPO's) or Conservation Area status does not form part of this assessment.

Ecological features can change over time, particularly if site management/ use changes. Typically, Ecological Impact Assessments are valid for 18 months (until December 2024).



5.0 Assessment Results

5.1 Designated Sites and Local Conservation Initiatives

No part of the site lies within a designated wildlife site. Within a 1km radius lie two statutory sites of European importance: Falmouth Bay to St Austell Bay Special Protection Area (SPA) and Falmouth & Helford Special Area of Conservation (SAC) which are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. These sites are described below, and their locations are shown on the designated sites plan at Appendix 2. The entire site lies within the Cornwall Area of Outstanding Natural Beauty (AONB) which is primarily a landscape designation and not considered by this EclA.

- Falmouth Bay to St Austell Bay SPA borders the eastern boundary of the site at the slipway. The SPA is designated for its populations of bird species listed on Annex I of the EC Birds Directive 2009: black throated diver (*Gavia arctica*), great northern diver (*Gavia immer*) and Slavonian grebe (*Podiceps auritus*).
- The Fal and Helford SAC is located c. 23m east of the site boundary. The SAC is designated for its habitats which are listed on Annex I of the EC Habitats Directive 1992: 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*).

Although outside the European sites, construction of the boathouse/studio has the potential to affect the designated areas. Runoff and any accidental spillage during construction could affect water quality which will negatively impact habitats and species within the estuary. Materials and machinery will be brought to the construction area through the garden of the property; the slipway within the SPA/SAC will not be used. Construction noise and vibration are unlikely to impact the key diving bird species of the SPA as these typically occur offshore in the wider Falmouth Bay area.

Once operational, the boathouse/studio is unlikely to have a significant effect on European sites. There are no plans to install any facilities that require connection to drainage and there will be no grey/wastewater discharge. Light spill from the boathouse/studio will not affect the special features of the two European sites but it could affect other species using the estuary (see 5.3). The development falls within the Zone of Influence around the Fal and Helford SAC within which developments that include housing and student, and tourist accommodation are considered to have cumulative recreational impacts (Cornwall Council, 2021). However, the new building will not provide stand-alone residential accommodation and will not contribute to recreational impacts on the SAC.

In the absence of mitigation, the proposed works are predicted to have a short-term negative impact of unlikely occurrence, of minor significance on an International scale. See section 6.1 for mitigation measures.

5.2 Habitat Distribution

A total of nine main habitat types were recorded on-site according to the UK Habitat Classification: Other woodland – mixed (w1h), hedgerow (priority habitat) (h2a 70); modified grassland (g4 230 64), other neutral grassland (g3c 80), ornamental dense scrub (h3 48), developed land - sealed



surface (u1b), buildings (u1b5) and built linear features (u1e 68; u1e 69) and other hedgerow (h2b).

Of the habitats on-site, the mixed woodland and species-rich native hedgerow are considered to be of ecological value and are described further in section 5.3 Notable Habitats. Modified grassland, other neutral grassland, dense scrub, buildings, built linear features and other hedgerow are considered to be of low ecological value and are described below. NB: Habitats of negligible or low ecological value may support protected or notable species; see section 5.4 in relation to species. The assemblage of vascular plant species associated with each habitat, including Latin names, is provided in Appendix 3.

Modified grassland (g4 230 64)

Much of the garden is laid to lawn and comprises modified grassland which is regularly maintained at a short sward height. Vegetation comprises abundant common bent and frequent selfheal, white clover and moss species, with occasional red fescue, sweet vernal-grass, dandelion and wild strawberry (Figure 1).

Modified grassland on-site offers very limited shelter or foraging opportunities for faunal species and is considered to be of value 'within the Zone of Influence'.

Other neutral grassland (g3c 80)

Unmanaged, longer grassland occurs alongside the fence line which crosses the site. This is dominated by false-oat grass, with remnants of woodland flora including bramble, nettle, foxglove and honeysuckle.

Other neutral grassland provides a small area of potential shelter and foraging habitat for small mammals, reptiles and invertebrates but it is bordered by lawns and shrubberies and disconnected from the mixed woodland. It is considered to be of value 'within the Zone of Influence'.

Dense scrub (h3 48)

Dense scrub is planted along the roadside boundary, part of the southern boundary and within a group in the garden. This habitat comprises a mix of non-native shrub species including rhododendron, fuchsia and mahonia species (Figure 1).

The scrub provides shelter and foraging habitat for faunal species and is considered to be of value 'within the Zone of Influence'.

Building (u1b5)

A single detached residential dwelling and a small shed are present in the western section of the site; these buildings will not be impacted by the proposed boathouse/studio development and are not included in this assessment. A stone storage building lies adjacent to the boatyard and slipway on the eastern boundary, adjacent to the foreshore. This is built into the hillside and has stone, mortared walls on two aspects and a flat concrete roof which is used as a viewing platform (Figure 2).

The storage building is devoid of vegetation and the stonework is in good condition; it is considered to be of 'negligible' ecological value. A detailed assessment of the storage building for protected species is provided in 5.3.



Developed land, sealed surface (u1b)

The boatyard, a section of slipway and the viewing platform have concrete surfaces. A pathway through the woodland is also of concrete construction. Other sealed surfaces within the site include the paved pathways and patios within the garden and a tarmac driveway. A swimming pool at the front of the property was covered over at the time of the survey.

The sealed surfaces are considered to be of 'negligible' ecological value.

Other hedgerow (h2b)

Species-poor hedges dominated by densely planted griselinia shrubs are located along parts of the northern and southern boundaries (Figure 3). These are regularly trimmed and cut to a box shape. A grass-covered hedgebank lies at the western end of the garden which is vegetated with predominantly false oat-grass.

The hedges provide shelter and foraging habitat for faunal species and are considered to be of value 'within the Zone of Influence'.

Built linear feature; mortared wall (u1e 68)

There are several linear features within the property. High, stone retaining walls surround the boatyard area; these are in good condition and have no vegetation cover (Figure 4). There are low stone retaining walls within the garden which support a mix of native and non-native plants including red valerian, ivy, navelwort, hart's-tongue fern, Mexican fleabane, iv-leaved bellflower and wild strawberry. There are occasional gaps within the stonework (Figure 5).

The retaining walls around the boatyard are considered to be of 'negligible' ecological value and the low garden walls are considered to be of value 'within the Zone of Influence'.

Built linear feature; fence (u1e 69)

A wooden fence runs north-south across the garden. This is well-vegetated with a mix of shrubs and climbers, and a narrow margin of grasses and tall herbs. Species present include ivy, black bryony, bramble, honeysuckle and heather (Figure 6).

Although a man-made structure, the vegetated structure provides shelter and foraging for faunal species and creates a habitat corridor across the site. It is considered to be of value 'within the Zone of Influence'.



Figure 1: View looking east of modified grassland (lawn) and dense scrub (planted shrubberies)



Figure 2: View looking southwest of the storage building with adjacent foreshore.



Figure 3: View looking northwest of the species-poor, planted hedgerow on the northern boundary



Figure 4: Retaining walls around boatyard area with adjacent storage building



Figure 5: View looking north of the retaining garden walls with vegetation cover



Figure 6: View looking south of the fence with vegetation cover



5.3 Notable Habitats

Other woodland; mixed (w1h)

Mixed woodland with >25% canopy cover is present at the eastern end of the site (Figure 7). This is a small area of open woodland with c. 13 mature trees, comprising predominantly sessile oak and low numbers of beech, sweet chestnut and Monterey pine. The woodland understorey is poorly developed. The ground layer contains a diverse mix of plant species, including abundant three-cornered leek with frequent sweet vernal-grass and occasional rough meadow-grass, false brome, red fescue, false oat-grass, bluebell (Schedule 8 WCA 1981), cleavers, hogweed and common dog-violet. Primrose, red campion, herb robert, hart's-tongue fern, stinking iris and nettle are also present in this habitat.

The mixed woodland contains mature trees and a diverse flora, and provides potential habitat for nesting birds, small mammals and invertebrates. This habitat is considered to be of 'Local Value'.

The location of the boathouse/studio will not directly affect the woodland but the import of construction materials and machinery through the site has the potential to cause habitat degradation due to disturbance to the ground flora, the spread of non-native invasive plants (see section 5.3) and impacts to tree root protection areas. Once the boathouse/studio is operational, the existing path through the woodland will be used for pedestrian access and no further impacts are predicted.

In the absence of mitigation, degradation of mixed woodland during the construction phase is predicted to have a short-term negative impact of probable occurrence, of minor significance on a local scale. Measures to mitigate and compensate for woodland degradation are provided in Section 6.2 below.

Hedgerow (priority) (h2a 70)

A species-rich native hedgerow is present along part of the southern boundary of the site, bordering the woodland. This is a typical Cornish hedge, with an earth/stone bank topped with trees and shrubs (Figure 8). The woody cover is patchy and comprises mainly sycamore and holly with non-native oleaster. The shaded bank below is covered with abundant ivy with frequent three-cornered leek (Schedule 9 WCA 1981) and occasional bramble and cleavers. Primrose, bluebell (Schedule 8 WCA 1981) and red campion also occur in this habitat.

The Cornish hedge provides potential habitat for nesting birds, small mammals, reptiles and invertebrates and, together with other hedges on the site, provides a wildlife corridor. The hedge is considered to be of 'Local Value'.

The hedge is unlikely to be affected during the construction phase as the proposed access route for materials and machinery will follow the line of the existing path through the woodland. However, if there are any diversions from this route, the function of the hedge as a wildlife corridor could be compromised. Once operational, the boathouse/studio will not affect the hedgerow.

In the absence of mitigation, degradation of the hedgerow during the construction phase is predicted to have a short-term negative impact of unlikely occurrence, of minor significance on a local scale. Measures to mitigate for potential hedgerow degradation are provided in Section 6.2 below.



Figure 7: View looking east of the mixed woodland and estuary beyond



Figure 8: View looking south of the species-rich, native hedgerow



5.4 Notable Species

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

Bats (Roosting, foraging and commuting)

Three bat species (eight records) have been recorded within a 1km radius of the site (ERCCIS, 2023): one record for pipistrelle species (*Pipistrellus* sp.), three records for common pipistrelle bat (*Pipistrellus pipistrellus*), three records for brown long-eared bat (*Plecotus auritus*) and one record for lesser horseshoe bat (*Rhinolophus hipposideros*). In the UK, all bat species and their roosts are legally protected under the Conservation Regulations 2017 (as amended), Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and Schedule 5 WCA 1981 (as amended). Some species are also protected under the NERC Act 2006 (see Appendix 4 for further information).

The storage building on-site was assessed for bat roost potential on 3rd August 2023 when internal access was made available. The stone walls are in good condition, the roof is a flat concrete structure and there are no external cracks or crevices which could be used by roosting bats. Two air vents were noted within the wall on the north-west aspect which open into the internal space (Figure 9); these were covered by cobwebs internally and are not being used for bat access. Open drainage pipes run through the building wall on the south-west aspect; these run below the storeroom and do not provide bats with any internal access (Figure 10). At the time of the survey, the pipes had cobweb cover or were blocked. No evidence of bats, such as droppings, staining or insect remains were found inside the building and it is considered to be of 'negligible' roost potential according to the Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Collins, 2016).

A detailed preliminary ground level roost assessment of the trees was not undertaken as part of the Phase 1 survey. However, it was noted that several of the mature woodland trees have features which could potentially support roosting bats, including splits, holes, loose bark and ivy cover. These trees are likely to be classed as being of at least 'low' roost potential according to the Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Collins, 2016).

The woodland, hedgerow and garden habitats on-site border the estuary and are likely to be used by bats for occasional foraging. The hedges are connected to the estuary and other gardens and offer some limited potential as commuting routes. In accordance with the 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Collins, 2016), the site was assessed as being of 'moderate suitability' for foraging and commuting bats due to habitat connections to the wider landscape.

The site is considered to be of at least 'Local Value' for roosting, foraging and commuting bats, and possibly of higher value if the trees are found to support bat roosts.

The proposed development has the potential to impact on roosting, foraging and commuting bats if artificial lighting is required during the construction phase. None of the trees will be removed but construction machinery could potentially affect tree root protection zones and long-term tree health. Construction activities have potential to disturb individual animals due to noise and vibration. Post-construction, any external artificial lighting at the boathouse/studio could affect bat activity within the site and the adjacent estuary.



In the absence of mitigation, the nature of the identified impacts on bats is considered to be long-term, negative, of likely occurrence and of minor significance at a local scale. See section 6.3 for mitigation measures.



Figure 9. Vents in store building



Figure 10. Pipe openings in store building

Dormouse

There are no records for hazel dormouse (*Muscardinus avellanarius*) within a 1km radius of the site (ERCCIS, 2023) although there are occasional records known from the Truro area (Cornwall Mammal Group, 2023). Dormice and their nests are legally protected under the Conservation Regulations 2017 (as amended), Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, Schedule 5 WCA 1981 (as amended) and Section 41 NERC Act 2006. See Appendix 4 for further information.

This species typically occurs within woodland, hedgerows and scrub habitats. Within the site, the woodland is considered unsuitable due to the lack of understorey and the Cornish hedge has gappy shrub cover. The garden shrubberies are also unlikely to be used by this species. Overall, the site is considered to be of 'Negligible Value' for dormouse.

The proposed development is unlikely to have impacted dormouse due to the likely absence of this species from the site. In the absence of mitigation, the nature of the identified impacts on dormouse is negligible and no further mitigation is required.

Otter

The ERCCIS desk study revealed one record of otter within a 1km radius of the site (ERCCIS, 2023). Otters and their resting/ breeding places are legally protected under the Conservation Regulations 2017 (as amended), Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019; Schedule 5 WCA 1981 (as amended) and the NERC Act (2006). See Appendix 4 for further information.

It is likely that the estuary foreshore which borders the site is used by otters on occasion. No evidence of otter holts or hovers (resting and breeding places) were recorded during the survey



and the garden is unlikely to be used by this species. The site is considered to be of 'Negligible Value' to otter.

The proposed development will not have any direct impacts on the foreshore and the boathouse/studio is not located on any habitats which could be used by this species. However, construction activities have potential to indirectly disturb individual animals due to noise, vibration and any runoff from the construction site. Post-development, increased levels of artificial lighting associated with the boathouse/studio could affect otter nocturnal activity. There are no plans to install any facilities that require connection to drainage and there will be no grey/wastewater discharge into the estuary.

In the absence of mitigation, the nature of the identified impact on otter is considered to be long-term, negative, of likely occurrence and of minor significance within the Zone of Influence. Measures to avoid and mitigate the potential impacts on otter are provided in section 6.3.

Badger

There are 5 records for badger (*Meles meles*) within a 1km radius of the site (ERCCIS, 2023). 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 4).

Garden habitats within the site provides some potential foraging habitat for badger. No badger setts were observed on-site or within 30m of the site boundary (where access was available). A mammal run was noted over the Cornish hedge on the southern boundary which could potentially be attributed to badger but no other signs were recorded.

The site may be used for occasional foraging, in combination with the surrounding gardens and farmland. However, the site is small (c. 0.24 ha) and unlikely to be of significant importance for this species. The site is considered to be of value for badgers 'within the Zone of Influence'.

There is likely to be minor disturbance from noise and vibration during the construction phase but overall, the development of the site is unlikely to impact badger.

In the absence of mitigation, the nature of the identified impacts on badger is predicted to have had a short-term negative impact, of unlikely occurrence and minor significance within the Zone of Influence. See section 6.3 for mitigation recommendations.

Hedgehog

The ERCCIS desk study found no records of hedgehog (*Erinaceus europaeus*) within 1km of the site (ERCCIS 2023). However, this species is widespread in Cornwall and the lack of records does not necessarily indicate its absence from the site. This species is protected under Schedule 6 WCA (as amended) and the NERC Act 2006.

Within the site, the grassland, woodland, shrubberies and hedges provide potentially suitable habitat for hedgehog. The site is considered to be of value for hedgehog within the 'within the Zone of Influence'.

Development of the site is unlikely to negatively impacted hedgehog. Construction of the boathouse/studio on the existing boatyard footprint will not affect hedgehog habitat. Access through the site during construction could potentially affect individuals sheltering within vegetation



and some precautionary measures are recommended to prevent harm to individual animals. No impacts are predicted once the boathouse/studio is occupied.

In the absence of mitigation, the nature of the identified impacts on hedgehog is predicted to have a short-term negative impact, of unlikely occurrence and minor significance within the Zone of Influence. See section 6.3 for mitigation recommendations.

Marine mammals

Marine mammals recorded from the estuary within a 1km radius of the site include bottle-nose dolphin (*Tursiops truncatus*), common dolphin (*Delphinus delphis*), common porpoise (*Phocoena phocoena*) and grey seal (*Halichoerus grypus*) which are protected under the Conservation of Habitats and Species Regulations 2017, the Conservation of Offshore Marine Habitats and Species Regulations 2017 and Schedule 5 WCA 1981. Grey seal is also protected under the Conservation of Seals Act 1970.

The site lies above Mean High Water and is of 'Negligible Value' for marine mammals. However, construction activities have potential to indirectly impact marine mammals in the estuary through vibration and runoff from the construction site. There are no plans to install any facilities that require connection to drainage and there will be no grey/wastewater discharge into the estuary.

In the absence of mitigation, the nature of the identified impact on marine mammals is considered to be a short term, negative, of unlikely occurrence and of minor significance within the Zone of Influence. Measures to avoid and mitigate the potential impacts on fish populations are provided in section 6.3.

Reptiles and Amphibians

The ERCCIS desk study revealed one record for slowworm (*Anguis fragilis*), one record for common lizard (*Zootoca vivipara*) and one record for grass snake (*Natrix natrix*). These reptile species are protected from killing/injury under the WCA 1981 (as amended) and in the planning system by the NERC Act 2006. There are no amphibian records.

The site has suitable habitats for reptiles, within open woodland, longer grassland, shrubberies and hedgerows, particularly slow worm and common lizard. Common lizard may be present within gaps in the garden walls; the boatyard and store walls are in good condition and are unsuitable. The site is considered to of value for reptiles 'within the Zone of Influence'.

The proposed development is unlikely to negatively impact the local populations of reptiles. However, access through the site during the construction phase could potentially injure individual animals sheltering within vegetation and garden walls.

In the absence of mitigation, the nature of the identified impacts on reptiles is predicted to have had a short-term negative impact, of unlikely occurrence and of minor significance within the Zone of Influence. See mitigation measures in section 6.3.

Birds

A high number of bird species have been recorded within a 1km radius of the site (ERCCIS, 2023), mainly waders, wildfowl, divers and seabirds associated with the adjacent estuary. On-site, the dense shrubberies, woodland trees and the hedgerows provide nesting opportunities and the combined garden habitats provide a food source throughout the year for birds. Of the species recorded locally, at least 33 have the potential to use the site on occasion, including the notable



species listed in Table 1 below. All birds are legally protected whilst nesting under the WCA 1981 (as amended). Species included on Schedule 1 of the WCA 1981 and S41 NERC Act 2006 have additional legal protection.

Whilst the site has some potential to support low numbers of breeding bird species of conservation significance, the site is small and suitable bird nesting habitat only occupies c. 0.08 ha. Overall, the site is considered unlikely to be of significant conservation importance for breeding birds. The site is considered to be of no greater value for birds than 'within the Zone of Influence'.

The proposed development will not directly impact any potential bird nesting habitat. Access through the site to the construction area may require minor cutting or removal of garden shrubs which could potentially disturb individual nesting birds which is a legal offence; no mature trees or hedgerows will be affected. Noise, vibration and runoff during construction could cause temporary, localised disturbance of nesting birds and foraging waders and wildfowl within the adjacent estuarine habitats. There are no plans to install any facilities that require connection to drainage and there will be no grey/wastewater discharge into the estuary.

In the absence of mitigation, the nature of the identified impacts on bird species is predicted to have had a short-term negative impact, of unlikely occurrence and of minor significance within the Zone of Influence. Mitigation recommendations to avoid direct impacts to nesting birds are provided in section 6.3.

Table 1. Notable bird species recorded within a 1k radius which may occur within the site

English name	Scientific name	Conservation and legal status					
		S41 NERC 2006	GB Red Data Book	England Red Data Book	Cornwall Red Data Book	RSPB Red List	RSPB Amber list
Grey heron	<i>Ardea cinerea</i>		*				
Greenfinch	<i>Chloris chloris</i>					*	
Wood pigeon	<i>Columba palumbus</i>						*
Rook	<i>Corvus frugilegus</i>		*				*
Collared dove	<i>Streptopelia decaoto</i>		*				
Hawfinch	<i>Coccothraustes coccothraustes</i>	*					
Herring gull	<i>Larus argentatus</i>	*	*			*	
House sparrow	<i>Passer domesticus</i>	*				*	
Mistle thrush	<i>Turdus viscivorus</i>		*				
Redwing	<i>Turdus iliacus</i>		*				
Rook	<i>Corvus frugilegus</i>		*				*
Song thrush	<i>Turdus philomelos</i>	*					*
Tawny owl	<i>Strix aluco</i>		*				*
Dunnock	<i>Prunella modularis</i>	*					*
Bullfinch	<i>Pyrrhula pyrrhula</i>	*					*
Siskin	<i>Spinus spinus</i>				*		
Tawny owl	<i>Strix aluco</i>		*				*
Wren	<i>Troglodytes troglodytes</i>						*



Fish

The ERCCIS desk study revealed records for nine fish species of conservation importance located within the estuary within a 1km radius of the site, particularly at Weir Quay and Restronguet Point. These include European eel (*Anguilla anguilla*), herring (*Clupea harengus*), mackerel (*Scomber scombrus*), horse mackerel (*Trachurus trachurus*) and plaice (*Pleuronectes platessa*) which are priority species protected under S41 NERC Act 2006. European eel and thornback ray (*Raja clavate*) are protected under the OSPAR Convention 1992 (Convention for the Protection of the Marine Environment of the North-East Atlantic).

The site lies above Mean High Water and is of 'Negligible Value' for fish. However, construction activities have potential to indirectly impact the estuary through vibration and any runoff from the construction site. There are no plans to install any facilities that require connection to drainage and there will be no grey/wastewater discharge into the estuary.

In the absence of mitigation, the nature of the identified impact on fish is considered to be short term, negative, of unlikely occurrence and of minor significance within the Zone of Influence. Measures to avoid and mitigate the potential impacts on fish populations are provided in section 6.3.

Invertebrates

A low number of notable invertebrate species have been recorded from within a 1km radius (ERCCIS, 2023). These include blood-vein moth (*Timandra comae*) which is a S41 NERC Act 2006 species and the nationally scarce spiders (*Halorates reprobus* and *Pardosa tenuipes*), beetle (*Aephus marinus*) and fly (*Aphrosylus mitis*). The unarmed stick-insect (*Acanthoxyla prasina* subsp. *inermis*) has also been recorded locally which is listed in the GB Red Data Book.

Notable marine invertebrates recorded within a 1km radius include common oyster (*Ostrea edulis*) a S41 NERC Act 2006 species which, along with dog whelk (*Nucella lapillus*) is protected under the OSPAR convention, and the nationally scarce two-toothed white snail (*Leucophytia bidentata*). The non-native invasive American slipper limpet (*Crepidula fornicata*) has been recorded at several locations nearby; this species is listed on Schedule 9 of the WCA and requires legal control.

On-site, the combined garden habitats are likely to support a diversity of common invertebrate species; blood-vein larva feed on low-growing plants such as dock and it is possible that this notable moth species may be present. The section of slipway within the site lies above the Mean High Water mark but within the splash zone; no marine invertebrates were recorded within this part of the site at the time of the survey. The site is considered to be of value for invertebrates 'within the Zone of Influence'.

The construction area is on existing hardstanding and will not affect any invertebrate habitat. The proposed access route through the garden may result in the minor loss and degradation of invertebrate habitats. The scheme has the potential to indirectly impact upon marine invertebrates in the estuary through any runoff from the construction site. There are no plans to install any facilities that require connection to drainage and there will be no grey/wastewater discharge into the estuary. Construction works are outside the foreshore and will not cause the spread of any invasive marine Schedule 9 species.

The nature of the likely impact on invertebrates is considered to be short in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance. Follow mitigation for habitats (section 6.2).



Vascular Plants

The ERCCIS desk study revealed a number of records for vascular plant species of conservation significance within a 1km radius of the site (ERCCIS, 2023). These include the S41 NERC Act 2006 species: chamomile (*Chamaemelum nobile*) and true fox sedge (*Carex vulpina*), the nationally rare Jacob's ladder (*Polemonium caeruleum*) and the nationally scarce stiff saltmarsh grass (*Puccinellia rupestris*), wild leek (*Allium ampeloprasum*) and bindweed species (*Calystegia sepium* ssp. *roseata*). There are also numerous vascular plants which are included in the England Red Data Book, including the vulnerable eelgrass (*Zostera marina*) and near threatened autumn lady's-tresses (*Spiranthes spiralis*), common cow-wheat (*Melampyrum pratense*), sanicle (*Sanicula europaea*), heath speedwell (*Veronica officinalis*) and wild strawberry (*Fragaria vesca*). There are also several records for bluebell (*Hyacinthoides non-scripta*) which is legally protected against uprooting and sale under Schedule 8 WCA 1981. The site has the potential to support notable plant species associated with woodland, hedgerow and grassland habitats.

A total of 78 vascular plant species were recorded on-site, many of which were non-native ornamental garden plants (see Appendix 3). N.B. The list of ornamental species is not exhaustive. The number of species is in accordance with a site of this size and mix of habitats. The woodland is the most floristically diverse habitat on-site. The only notable species recorded during the survey was bluebell in the woodland, hedgerow and shrubberies. The site is considered to be of value for vascular 'within the Zone of Influence'.

The proposed boathouse/studio and likely location of the construction storage area/compound will be located on an area of hardstanding. Access to the construction area will follow existing pathways through the site where possible, although some minor vegetation disturbance or clearance may be required along this route. Due to the very small areas of habitat disturbance, this is unlikely to impact local vascular plant populations. Indirect impacts to the estuary through construction runoff and dust could potentially affect vascular plants on the adjacent foreshore. There are no plans to install any facilities that require connection to drainage and there will be no grey/wastewater discharge once the boathouse/studio is operational which could affect vascular plants.

In the absence of mitigation, the nature of the identified impacts on plant species is predicted to have a short negative impact, of unlikely occurrence and of minor significance within the Zone of Influence. Follow mitigation for habitats in Section 6.2 below.

Invasive Plants

In the UK, a number of non-native invasive plant species are listed on Schedule 9 WCA 1981, making it an offence to cause them to spread to the wild. The ERCCIS desk study revealed records for six Schedule 9 invasive plant species within a 1km radius of the site (ERCCIS, 2023): Japanese knotweed (*Fallopia japonica*), three-cornered leek (*Allium triquetrum*), rhododendron (*Rhododendron ponticum*), montbretia (*Crocasmia x crocosmiifolia*), Himalayan cotoneaster (*Cotoneaster simonsii*) and variegated yellow archangel (*Lamium galeobdolon* ssp. *argentatum*).

Three Schedule 9 WCA 1981 invasive plant species were observed on-site during the site survey: three-cornered leek, Japanese rose (*Rosa rugosa*) and wall cotoneaster (*Cotoneaster horizontalis*). Rhododendron species (*Rhododendron ponticum*) was recorded just outside the site in the neighbouring garden to the north; other rhododendron species were also noted on-site in the shrubberies but these were not the invasive variety. The locations of the Schedule 9 species are



shown on Map 1 above. Although not included on Schedule 9, the non-native invasive winter heliotrope (*Petasites fragrans*) is present within the mixed woodland.

Construction activities have the potential to spread Schedule 9 and other invasive plants during earthworks around the construction site and by any vehicle movements outside the existing pathways. See section 6.3 for mitigation recommendations.

Non-Vascular Plants

A specialised survey for non-vascular plants, such as bryophytes, lichens and seaweeds, was outside of the scope of this assessment. The ERCCIS desk study revealed one record for a lower plant species of conservation importance within a 1km radius of the site: the nationally rare alga (*Gelidium corneum*). Two non-native invasive algae have been recorded locally: wireweed (*Sargassum muticum*) and harpoon weed (*Asparagopsis armata*). These are both listed on Schedule 9 of the WCA 1981 and require legal control.

On-site, the mature trees, Cornish hedgerow, garden walls and slipway provide potential lower plant habitat. However, overall, the site lacks features which could support diverse assemblages and species of conservation significance and it is considered to be of value for non-vascular plants 'within the Zone of Influence'.

The proposed development will not directly impact any potential lower plant habitats and any small, localised habitat disturbance during construction is unlikely to impact local populations. Indirect impacts to the adjacent foreshore and wider estuary through construction runoff and dust could potentially affect seaweeds and other non-vascular plants. There are no plans to install any facilities that require connection to drainage and there will be no grey/wastewater discharge that could affect lower plants on the foreshore. The works will not cause the spread of any Schedule 9 lower plant species.

In the absence of mitigation, the nature of the identified impacts on plant species is predicted to have a short-term negative impact, of unlikely occurrence and of minor significance within the Zone of Influence. Follow mitigation for habitats in Section 6.2 below.



6.0 Mitigation Recommendations

Recommendations to address potential ecological impacts 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 (Section 2.0; Map 1) which accompanies the Non-Technical Summary.

6.1 Designated Sites

The site borders Falmouth Bay and St Austell Bay SPA and lies in close proximity to Fal and Helford SAC. The following measures will be implemented to avoid and mitigate for potential indirect impacts to the designated features of these European sites:

1. A Habitat Regulations Assessment (HRA) will be required in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended) and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) to determine if a plan or project may affect the conservation objectives of the European sites. HRA is a staged process; as a minimum, Screening (Stage 1) and Appropriate Assessment (Stage 2) will be required to ascertain that adverse effects of the proposed development on the integrity of the European sites can be ruled out. The HRA process will identify detailed measures to avoid, mitigate and compensate for any adverse impacts, including potentially noise, vibration, runoff and lighting.
2. The proposed works are situated above the Mean High Water mark; a marine licence from the Marine Management Organisation (MMO) is, therefore, unlikely to be required to permit works.
3. The development site falls within the recreational Zone of Influence of the Fal and Helford SAC, which is considered to be vulnerable to recreational impacts associated with an increase in local population density. The proposed development, as described in section 3.3 above, will not result in an increase in local population density, nor is it considered likely to result in an increase in recreational use of the SAC above the current level.

6.2 Habitats

Of the habitats within the site, the mixed woodland and hedgerow (priority) are identified as notable habitats and mitigation is identified below to address potential impacts. The modified grassland, dense scrub, buildings, built linear features and other hedgerow are considered to be of low ecological value and there is no specific requirement to mitigate loss of / disturbance to these habitats. NB: habitats of low biodiversity value may support legally protected species (see section 6.3 below for species mitigation recommendations).

4. All habitats: Prepare and implement a Construction Environmental Management Plan (CEMP) to demonstrate the measures taken to avoid impacts to habitats, including minimising noise, vibration, lighting, dust and the risk of runoff during the construction phase. The CEMP should include the recommendations relating to construction below.
5. Mixed woodland (loss and degradation): Demarcate an appropriate access route through the site to the construction area for the transport of machinery and materials. The



route should be confined to the existing pathway through the woodland to avoid disturbance to the woodland ground flora and damage to tree root protection areas.

6. If there is any localised disturbance adjacent to the construction route during construction, restore the woodland ground flora by rectifying any areas of compacted soil and reseeding with an appropriate native woodland seed mix.
7. Hedgerow (loss and degradation): Protect the priority hedgerow during construction by maintaining a development-free 2m wide buffer alongside the boundary in this part of the site. As the hedge lies within the mixed woodland, it is unlikely to be disturbed providing that the demarcated construction route is adhered to.

6.3 Species

Development of the site had some potential to directly impact bats (roosting, foraging and commuting), badger, hedgehog, reptile species, birds and invertebrates within the site boundary. It could also indirectly affect marine species in the adjacent estuary including otter, marine mammals, fish and non-vascular plants. The impact on these species/ species groups can be avoided/ mitigated by following the mitigation measures below.

8. All species: Prepare and implement a Construction Environmental Management Plan (CEMP) to demonstrate the measures taken to avoid impacts to species, including minimising noise, vibration, lighting, dust and the risk of runoff during the construction phase. The CEMP should include the recommendations relating to construction below.
9. Bats (roosting): Several trees within the mixed woodland have been identified as having bat roost potential. If any tree works are proposed e.g. reduction or felling, a preliminary ground level roost assessment by a licenced bat ecologist will be required for the planning application to identify if any of these trees have high, moderate or low Potential Roost Features (PRF). Depending on the type of PRFs present and likely impacts, additional dusk emergence surveys may be required to confirm the current roost status of the trees; these must be carried out between May – September.
10. If any further bat surveys indicate that the works will impact a bat roost, a licence from Natural England will be required before the works can proceed. Licences can only be applied for after planning permission is granted.
11. Bats (foraging 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 foraging and commuting bats. Further bat activity surveys are not recommended due to the small size of the site and due to the predicted minor impact of the development on foraging and commuting habitats. Any artificial lighting proposed must be minimised and directed away from the site boundaries and the estuary.
12. Badger and hedgehog: Any excavated pits associated with the proposed development site (none are anticipated) 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.
13. All fences (temporary and permanent) must have a minimum 25cm gap below to permit movement of faunal species.



14. Hedgehog: If any vegetation clearance is required, remove this carefully according to the method outlined in 18. below to avoid injury to hedgehog and small mammals.
15. Birds: Adopt a precautionary approach during any removal / pruning of any trees or shrubs to avoid nesting birds. Cut vegetation outside the main breeding nesting (October to February inclusive). If this is not feasible, carry out an ecological watching brief to check vegetation prior to works. 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.
16. Mitigate for any minor loss of nesting habitat by installing a bird box within retained trees.
17. Reptiles: If clearance of shrubs and long grassland is required, cut woody vegetation to 200mm above ground level during the winter (when birds will not be nesting) and undertake ground works during spring/ summer (May – September/ early October) when reptiles will be active and are able to move away from disturbance.
18. Invertebrates, vascular and non-vascular plants: Follow mitigation recommendations for habitats (section 6.2).
19. Invasive plants: Three-cornered leek, wall cotoneaster and Japanese rose are present within the site. These species are listed on Schedule 9 of the WCA (1981) making it an offence to cause them to spread to the wild. Three-cornered leek is abundant within the woodland and so any vegetation disturbance alongside the path could cause this species to spread. Follow the recommendations in 5. above to minimise this risk.
20. Eradication of these species represents an opportunity to increase the biodiversity value of the site and help protect semi-natural habitats within the immediate vicinity of the site.
21. Marine species: Marine species associated with the adjacent estuary include estuarine birds, otter, marine mammals, fish and non-vascular plants. Follow the Environment Agency pollution prevention guidance PPG5 on working on and near water to avoid the risk of water contamination during the construction phase (Environment Agency, 2007). These former guidelines have been withdrawn but should be used until new guidance is issued.
22. Include measures in the CEMP to minimise construction noise, vibration and lighting to avoid disturbance to marine species in the adjacent estuary.
23. Post-development, minimise external lighting/light spill from the new boathouse/studio and along the access route. Avoid any direct lighting onto the estuary.

6.4 Opportunity for Biodiversity Enhancements

Biodiversity Net Gain (BNG) is an approach to development and/or land management that aims to leave the natural environment in a measurably better state than it was beforehand. To avoid a net loss, ecological impacts should be minimised by applying the mitigation hierarchy approach: firstly to avoid impacts, then to reduce impacts and finally to compensate for impacts. Biodiversity enhancements are additional to the required mitigation/compensation and should be incorporated within development schemes to achieve a BNG, as required by the Local Planning Authority (Cornwall Council, 2023).

The biodiversity value of the site could potentially be enhanced by successfully implementing the following measures, as recommended by Cornwall Council's biodiversity guidance (2018):



24. Install an integral bat box within the structure of the new boathouse/studio to improve roosting habitat.
25. Install a bee brick within the structure of the new boathouse/studio to improve invertebrate habitat, or alternatively provide bee posts within landscaped parts of the site.

Additional enhancements which could be included are as follows:

26. Provide additional bird boxes within the woodland area.
27. Maximize the value of the site for invertebrates, amphibians, reptiles and hedgehog by providing piles of deadwood within the wooded area of the garden.
28. Incorporate native tree and shrub planting in landscaped parts of the site.
29. Restore the Cornish hedge on the south-western boundary by planting up gaps with native trees and shrubs, such as oak, hawthorn, hazel, elder and holly.
30. Remove/ control invasive plant species to enhance the ecological value of the site and protect semi-natural habitats in the wider area from degradation arising from the spread of invasive species.

6.5 Further surveys

A Habitat Regulations Assessment will be required to inform the planning application.

Providing the mitigation recommendations provided in this report can be followed to avoid impacts to protected species, no further surveys are required to inform the planning application.

6.6 Monitoring

Post-development 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	Mitigation and enhancements (Points 1-31 in Section 6.0)	Significance of effect of residual impact after mitigation
Designated Sites	Degradation of Falmouth Bay to St Austell Bay SPA and Fal and Helford SAC (construction)	Short-term negative impact of unlikely occurrence, of minor significance on an International scale	1, 2, 3	To be determined by a Habitat Regulations Assessment
Mixed woodland	Minor loss and degradation (construction)	Short-term negative impact of probable occurrence, of minor significance on a local scale.	4, 5, 6, 28, 30	Neutral
Hedgerow (priority)	Minor degradation (construction)	Short-term negative impact of unlikely occurrence, of minor significance on a local scale.	4, 7, 29	Neutral
Bats (roosting)	Loss or degradation of suitable habitat (construction and operational)	Long-term, negative, of likely occurrence and of minor significance at a local scale.	8, 9, 10, 23, 24	To be determined by further survey
Bats (foraging and commuting)	Loss or degradation of suitable habitat (construction and operational)	Long-term, negative, of likely occurrence and of minor significance at a local scale.	8, 12, 23	Neutral
Otter	Disturbance to individual animals (construction and operation)	Long-term, negative, of likely occurrence and of minor significance within the Zone of Influence.	8, 21, 22	Neutral
Badger	Harm or disturbance to individual animals (construction)	Short-term negative impact, of unlikely occurrence and minor significance within the Zone of Influence.	8, 12, 13	Neutral
Hedgehog	Harm or disturbance to individual animals (construction)	Short-term negative impact, of unlikely occurrence and minor significance within the Zone of Influence.	8, 12, 13, 14, 27	Neutral
Marine mammals	Disturbance to individual animals (construction)	Short term, negative, of unlikely occurrence and of minor significance within the Zone of Influence	8, 21, 22	



Feature	Characterisation of unmitigated impact	Effect without mitigation	Mitigation and enhancements (Points 1-31 in Section 6.0)	Significance of effect of residual impact after mitigation
Reptiles	Harm or disturbance to individual animals (construction)	Short-term negative impact, of unlikely occurrence and of minor significance within the Zone of Influence.	8, 17, 27	Neutral
Birds	Harm or disturbance to individual animals (construction)	Short-term negative impact, of unlikely occurrence and of minor significance within the Zone of Influence.	8, 15, 16, 26	Neutral
Fish	Harm or disturbance to individual animals (construction)	Short term, negative, of unlikely occurrence and of minor significance within the Zone of Influence.	8, 21, 22	Neutral
Invertebrates	Loss of or degradation of suitable habitat (construction)	Short in duration, of unlikely occurrence, negative within the Zone of Influence and of minor significance	8, 18, 25, 27	Neutral
Vascular plants	Loss or degradation of habitats (construction)	Short negative impact, of unlikely occurrence and of minor significance within the Zone of Influence	8, 18, 19, 20, 26, 28, 29, 30	Neutral
Lower Plants	Loss or degradation of habitats (construction)	Short-term negative impact, of unlikely occurrence and of minor significance within the Zone of Influence	8, 18	Neutral

7.1 Residual Impacts

Provided that the mitigation recommendations given in the Ecological Impact Assessment and the Habitat Regulations Assessment reports are implemented, no residual impacts are predicted.



8.0 Bibliography

- Baker, 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.
- BSI (2021) BS 8683: 2021 Process for designing and implementing Biodiversity Net Gain – Specification. BSI.
- Bright et al., (2006) Dormouse Conservation Handbook. English Nature (now Natural England).
- Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). UK Habitat Classification – Habitat Definitions V1.1. at <http://ukhab.org>
- 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.
- 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] (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. April 2019. CIEEM, Winchester.
- 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
<https://www.cornwall.gov.uk/media/v1roqk0x/planning-for-biodiversity.pdf>
- Cornwall Council (2021) European Sites Supplementary Planning Document (SPD)
<https://www.cornwall.gov.uk/media/wmvnoxzz/european-sites-mitigation-spd-july-2021-marine-and-terrestrial-sites.pdf>
- Cornwall Council (2022) Biodiversity Net Gain: A how to guide for the development process
<https://www.cornwall.gov.uk/media/muhmug45/draft-biodiversity-net-gain-guidance-for-developers-and-planners-web.pdf>



Cornwall Council (2023) Climate Emergency Development Plan [Climate Emergency Development Plan Document \(DPD\) - Cornwall Council](#)

Cornwall Mammal Group (2023). [HOME | cornwallmammalgroup](#)

Cornwall Wildlife Trust [CWT] (2007) Biodiversity and Geological Conservation: Planning Good Practice Guidance for Cornwall. CWT.

DEFRA et al (2023). Multi Agency Geographic Information for the Countryside (MAGIC). Available at: <http://magic.defra.gov.uk/>

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 2023) Erecords computer database. Cornwall Wildlife Trust. Unpublished.

JNCC (to 2023). Red Lists in Great Britain. Available at: [Red lists in Great Britain | JNCC - Adviser to Government on Nature Conservation](#); [Conservation designations for UK taxa | JNCC - Adviser to Government on Nature Conservation](#) (accessed June 2023).

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 (2017) The Conservation of Habitats and Species Regulations 2019 (as amended). HMSO, London.

HM Government (2019) The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. HMSO, London.

JNCC [Joint Nature Conservation Committee] (2011) UK BAP Priority Species and Habitats. Available at: [UK BAP Priority Habitats | JNCC - Adviser to Government on Nature Conservation](#) (accessed June 2023)

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



Department of Housing, Communities and Local Government (2021) National Planning Policy Framework <https://www.gov.uk/guidance/national-planning-policy-framework>

Mitchell-Jones, A J & McLeish, A P., (Edits) (1999). The Bat Workers' Manual. Joint Nature Conservation Committee, Peterborough.

Mitchell-Jones, T., 2004. Bat mitigation guidelines. External Relations Team, English Nature.

Natural England Advice Note (2022) [Hazel dormice: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/hazel-dormice-advice-for-making-planning-decisions)

Natural England (2022) [Reptiles: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/reptiles-advice-for-making-planning-decisions)

Natural England (2022). [Bats: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/bats-advice-for-making-planning-decisions)

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

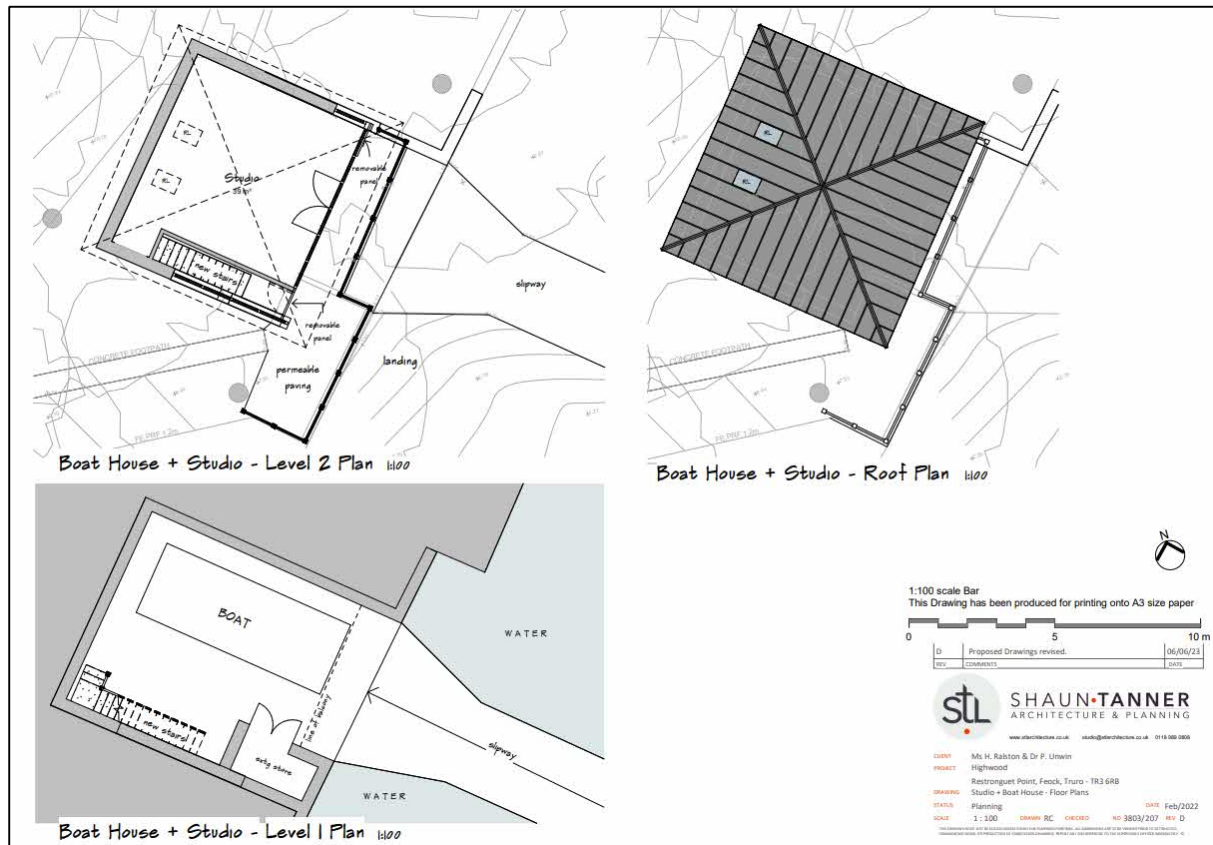
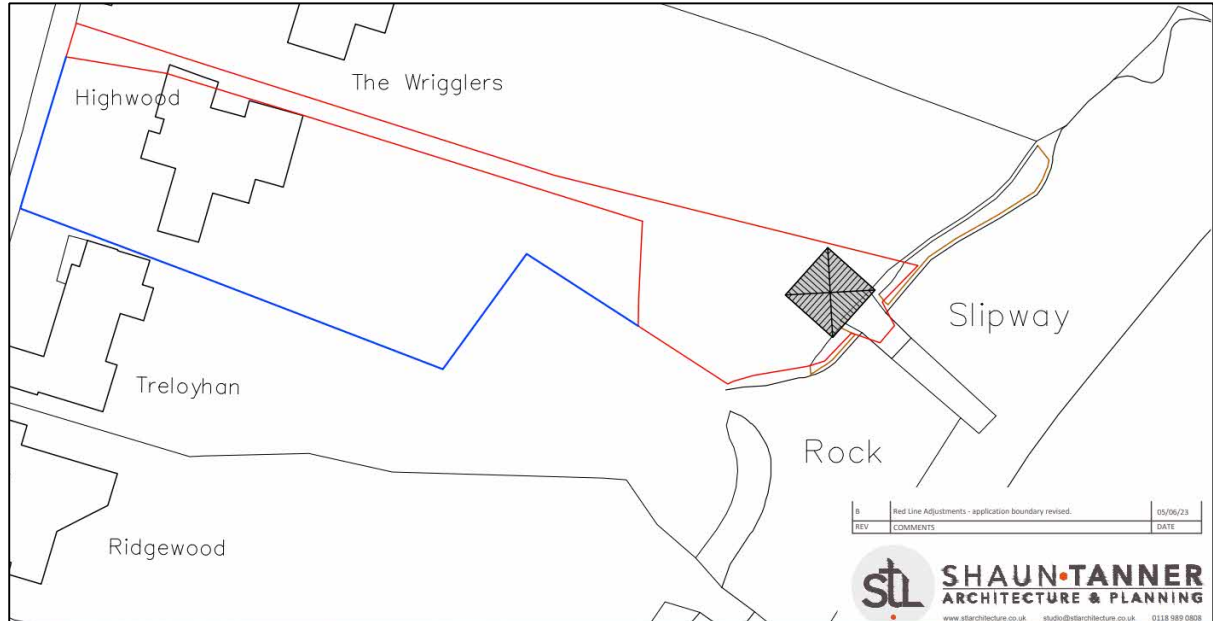
Preston C. D. Pearman D. A. & Dines T. D. (2002) New Atlas of the British and Irish Flora. Oxford Unity Press Inc., New York

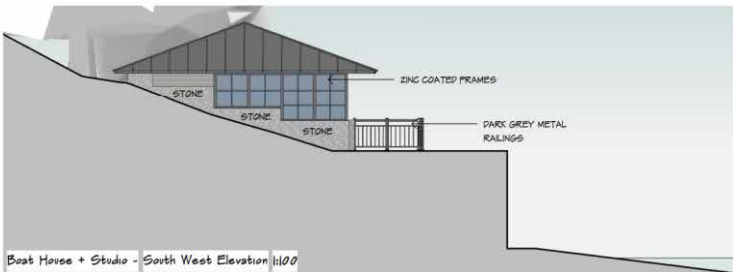
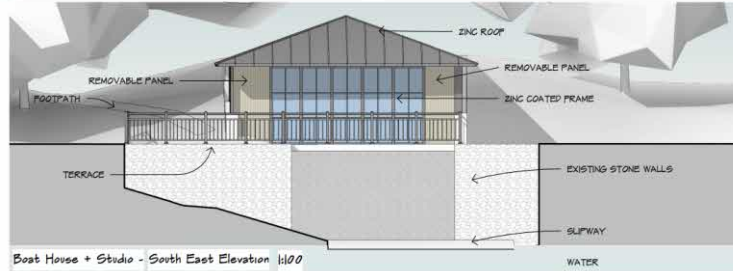
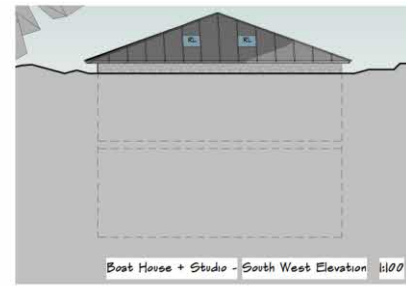
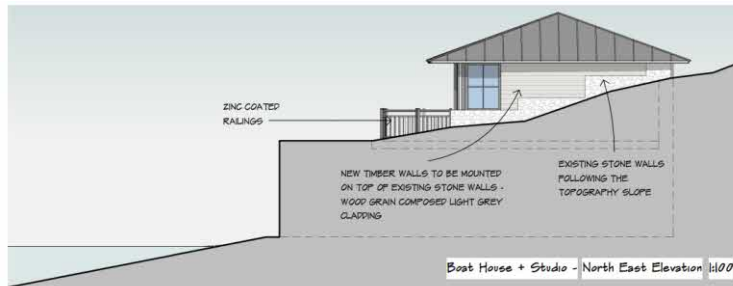
Ratcliffe, D. (2009) A Nature Conservation Review. Cambridge University Press. Cambridge.

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



9.0 Appendix 1: Indicative Site Proposals





NEW STOREY ABOVE BOAT HOUSE
 TO BE USED AS A STUDIO ROOM



1:100 scale Bar
 This Drawing has been produced for printing onto A3 size paper



D	Proposed Drawings revised:	06/06/23
REV	COMMENTS	DATE







CLIENT: Ms H. Rabston & Dr P. Unwin
 PROJECT: Highwood
 Restronguet Point, Feock, Truro - TR3 6RB
 DRAWING: Studio + Boat House - Elevations
 STATUS: Planning
 SCALE: 1 : 100 DRAWN: RC CHECKED: NI: 3803/208 REV: D
 DATE: Feb/2022



10.0 Appendix 2: Location of Site and Designated Sites of Nature Conservation Importance



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Location	Site Code	Site Type	Site Name	Colour
1	6	AONB	Cornwall	
2	UK0013112	SAC	Fal & Helford	
3	UK0013112	SAC (Marine)	Fal & Helford	
4	UK9020323	SPA	Falmouth Bay to St Austell Bay	



11.0 Appendix 3: Vascular plant list by habitat type

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

Latin name	Common Name	Other woodland - mixed (w1h)	Modified grassland (g4)	Dense scrub (h3)	Species-rich native hedgerow (h2a)	Other hedgerow (h2b)	Built linear feature - wall (u1e)	Built linear feature - fence (u1e)
<i>Acer pseudoplatanus</i>	Sycamore				R			
<i>Acer pseudoplatanus</i>	Sycamore (seedling)	R	R					R
<i>Agrostis capillaris</i>	Common bent-grass		A					
<i>Allium triquetrum</i>	Three-cornered leek	F/A			F			
<i>Anthoxanthum odoratum</i>	Sweet vernal grass	F	O					
<i>Arctium</i> sp.	Burdock							R
<i>Arrhenatherum elatius</i>	False oat-grass	O			O			
<i>Arum maculatum</i>	Lords and ladies	R						
<i>Asplenium scolopendrium</i>	Hart's tongue	R/O					R/O	
<i>Aubretia</i> sp.	Aubretia						O	
<i>Bellis perennis</i>	Daisy		O					
<i>Brachypodium sylvaticum</i>	False brome	O						
<i>Cardamine pratensis</i>	Cuckoo flower		R					
<i>Castanea sativa</i>	Sweet chestnut	O						
<i>Castanea sativa</i>	Sweet chestnut (sapling)	R						
<i>Centranthus ruber</i>	Red valerian						O	
<i>Circaea lutetiana</i>	Enchanter's nightshade	R						
<i>Cotoneaster horizontalis</i>	Wall cotoneaster						R	
<i>Cymbalaria muralis</i>	Ivy-leaved toadflax						F	
<i>Dactylis glomerata</i>	Cock's-foot	R					R	
<i>Digitalis purpurea</i>	Foxglove							R
<i>Dryopteris dilatata</i>	Broad buckler fern	R			R			
<i>Dryopteris filix-mas</i>	Male fern	R			R			R
<i>Epilobium</i> sp.	Willowherb species		R					
<i>Erica</i> sp.	Heather (garden variety)							O
<i>Erigeron karvinskianus</i>	Mexican fleabane						F	
<i>Fagus sylvatica</i>	Beech	R/O						
<i>Festuca rubra</i>	Red fescue	O	O				F	R
<i>Fragaria vesca</i>	Wild strawberry	R	R/O				O	
<i>Fraxinus excelsior</i>	Ash (sapling)			R				
<i>Fuchsia</i> sp.	Fuchsia			F	R			R
<i>Galium aparine</i>	Cleavers	O	O		O			
<i>Geranium robertianum</i>	Herb robert	R/O	R		R			R



Latin name	Common Name	Other woodland - mixed (w1h)	Modified grassland (g4)	Dense scrub (h3)	Species-rich native hedgerow (h2a)	Other hedgerow (h2b)	Built linear feature - wall (u1e)	Built linear feature - fence (u1e)
<i>Geum urbanum</i>	Wood avens			R				
<i>Griselinia</i> sp.	Griselinia			O		D		
<i>Hedera helix</i>	Ivy	R			A		O	A
<i>Heracleum sphondylium</i>	Hogweed	O			R			
<i>Holcus lanatus</i>	Yorkshire fog		O					O
<i>Hyacinthoides non-scripta</i>	Bluebell	O		R	O			
<i>Hydrangea</i> sp.	Hydrangea				R			
<i>Hypochaeris radicata</i>	Cat's-ear		O					
<i>Ilex aquifolium</i>	Holly	R			R			
<i>Iris foetidissima</i>	Stinking iris	R/O						
<i>Laurus nobilis</i>	Bay							R
<i>Lolium perenne</i>	Perennial rye-grass		R					
<i>Lonicera periclymenum</i>	Honeysuckle	R						F
<i>Mahonia</i> sp.	Mahonia			R/O				
<i>Malus</i> sp.	Apple			R				
<i>Narcissus</i> sp.	Daffodil species	F						
<i>Oleaster</i> sp.	Oleaster			O/LF	R			
<i>Pinus radiata</i>	Monterey pine	R/O						
<i>Pittosporum</i> sp.	Pittosporum					R		
<i>Plantago lanceolata</i>	Ribwort plantain	R						
<i>Poa trivialis</i>	Rough meadow-grass	F						
<i>Primula vulgaris</i>	Primrose	O/LF	R	R				R
<i>Prunella vulgaris</i>	Selfheal		F					
<i>Pteridium aquilinum</i>	Bracken	R						
<i>Quercus petraea</i>	Sessile oak	F						
<i>Quercus petraea</i>	Sessile oak (seedling)	R						
<i>Quercus suber</i>	Cork oak	R						
<i>Ranunculus repens</i>	Creeping buttercup		O					
<i>Rhododendron</i> sp.	Rhododendron species			R/O				
<i>Rosa rugosa</i>	Japanese rose			R/LD				
<i>Rubia peregriana</i>	Wild madder							R
<i>Rubus fruticosus</i> agg.	Bramble	R			O	R		R
<i>Rumex acetosa</i>	Common sorrel	R/O						
<i>Rumex acetosella</i>	Sheep's sorrel		R					R
<i>Rumex obtusifolius</i>	Broad-leaved dock				R			
<i>Sagina procumbens</i>	Procumbent pearlwort	R						
<i>Silene dioica</i>	Red campion	R/O						
<i>Sonchus arvensis</i>	Field sowthistle	R					R	R/O
<i>Tamus communis</i>	Black bryony	R						R



Latin name	Common Name	Other woodland - mixed (w1h)	Modified grassland (g4)	Dense scrub (h3)	Species-rich native hedgerow (h2a)	Other hedgerow (h2b)	Built linear feature - wall (u1e)	Built linear feature - fence (u1e)
Taraxacum officinale agg.	Dandelion	R/O	O		R			R
Trifolium repens	White clover		F					
Ulmus sp.	Elm species (sapling)	R						
Umbilicus rupestris	Navelwort	R					F	
Urtica dioica	Common nettle	R/LF			R			R
Veronica chamaedrys	Germander speedwell		O					
Viola riviniana	Common dog violet	O	F					R
Wahlenbergia hederacea	Ivy-leaved bellflower	R					O	



12.0 Appendix 4: Legislation and Planning Policy

Protected Habitats, Species and Designated Sites

- The Conservation of Habitats and Species Regulations (HM Government, 2017) (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (HM Government, 2019)), referred to here after as the 'Habitat Regulations', encompasses Special Areas of Conservation (SACs) and provides additional protection for Special Protected Areas (SPA's), RAMSAR Sites and European Protected Species (EPS). Protection is afforded from direct and indirect impacts, particularly where mobile wildlife populations for which the SAC/SPA is designated may be significantly affected. A Habitats Regulations Assessment/Appropriate Assessment must be completed by the competent authority, based on sufficient information provided by the applicant, to meet Regulation 63 of the Habitats Regulations. The Waddenzee judgement ruled that a plan or project may be authorised only if a competent authority has made certain that the plan or project will not adversely affect the integrity of the site. A decision can only be reached "where no reasonable scientific doubt remains as to the absence of such effects". Competent authorities must be "convinced" that there will not be an adverse effect. Where doubt remains as to the absence of adverse effects, the plan or project must not be authorised, subject to the procedure outlined in the Habitats Regulations regarding imperative reasons of overriding public interest.
- The Conservation of Offshore Marine Habitats and Species Regulations 2017. The Regulations apply to the "offshore area" outside UK territorial waters, i.e. the area greater than 12 nautical miles from the landward baseline of the territorial sea, and are commonly referred to as the DEFRA Offshore Habitats Regulations. This legislation includes provisions for the designation and protection of marine SACs and SPAs that support important habitats and species in the offshore marine area. The regulations make provision for licencing activities that affect European Protected Species (EPS) and give protection to wild birds, their eggs and nests in UK offshore waters.
- The Countryside and Rights of Way (CRoW) Act (HM Government, 2000, as amended) The CROW Act places a statutory duty on Statutory Nature Conservation Organisations (SNCO) to have regard to biodiversity conservation and to promote conservation action by others. Section 74 of the Act requires the preparation and maintenance of lists of priority species and habitats. It also places a statutory duty on public bodies to conserve SSSIs and enhance their value, and provides SNCOs with the power to impose Management Schemes on owners of SSSIs. The CROW Act strengthens the legal protection for threatened species with regard to killing, injuring, disturbing or destroying places used for shelter and protection.



- The Hedgerows Regulations (1997) The Hedgerow Regulations 1997 were made under Section 97 of the Environment Act 1995 (HM Government, 1995) and took effect on 1 June 1997. They introduced arrangement for local planning authorities (LPAs) to protect important countryside hedgerows through a system of notification. Such hedgerows are frequently valuable because of their historical, ecological and landscape characteristics.

Under the Hedgerow Regulations 1997, an offence occurs when:

A person intentionally or recklessly removes, or causes or permits another person to remove, a hedgerow in contravention of regulation 5(1) or (9); and when

A person contravenes or fails to comply with regulation 6(2).

A hedgerow is a boundary line of shrubs or trees and is 'important', and protected, under the Hedgerow Regulations 1997 if it meets a specific criterion (see Table 1 and Appendix 1). Cornish hedgerows do not necessarily meet the criteria of the Hedgerow Regulations 1997 but are typically of great historic, landscape and biodiversity value. The Hedge (and wall) Importance Test (HIT), developed by the Guild of Cornish Hedgers, is an alternative measure of value and is required to inform planning decisions impacting hedgerows in Cornwall (Cornwall Council, 2018).

- The Natural Environment and Rural Communities (NERC) Act (HM Government, 2006) bestows a legal duty on public authorities to conserve biodiversity. The Section 40 duty requires Local Authorities to have regard to the purpose of conserving biodiversity. This particularly relates to Section 41 Habitats and Species of Principal Importance (sometimes called 'priority habitats' or 'priority species').
- 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.
- OSPAR Convention 1992 (Convention for the Protection of the Marine Environment of the North-East Atlantic: This makes provision for the prevention and elimination of marine pollution from land-based sources, by dumping or incineration or offshore sources, together with assessment of marine habitat quality and protection and conservation of marine ecosystems.

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, sand lizard, smooth snake & 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 2019 (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (HM Government, 2019)), 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 (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. Sand lizard and smooth snake are also EPS (see above legal protection of EPS).

Invasive plants: The WCA 1981 states that if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence. Anyone convicted of an offence under Section 14 of the WCA 1981 may face a fine of £5,000 and/or 6 months imprisonment, or 2 years and/or unlimited fine or indictment. The following legislation is relevant to invasive plants:

Control of Pesticides Regulations (CoPR) 1986: CoPR 1986 require any person who uses a pesticide to take all reasonable precautions to protect the health of human beings, creatures and plants, safeguard the environment and in particular avoid the pollution of water. For application of pesticides in or near water, approval from the Environment Agency should be sought before use.

Environmental Protection Act 1990 (EPA 1990): EPA 1990 contains a number of legal provisions concerning 'controlled waste', which is set out in Part II. Material containing the propagules of species listed on Schedule 9 is classified as controlled waste and must be safely disposed of at an appropriately licensed landfill site in accordance with the Environmental Protection Act 1990 (Duty



of Care) Regulations 1991. Section 33 (1a) and (1b) create offences to do with the deposit, treating, keeping or disposing of controlled waste without a license. Exemptions from licensing are available in some circumstances, and are set out in Schedule 3 to the Waste Management Licensing Regulations 1994 as amended, which makes it an offence to keep, treat or dispose of controlled waste in a manner likely to cause pollution of the environment or harm to human health. Anyone convicted is subject to a maximum fine of £20,000 and/or 6 months imprisonment and if prosecuted under the Crown court, this escalates to an unlimited fine and/or a maximum of two years imprisonment. Section 34 places duties on any person who imports, produces, carries, keeps, treats or disposes of controlled waste. Waste must be handled responsibly and in accordance with the law at all stages between its production and final recovery or disposal. Waste must be transferred to an authorized person i.e. either a registered carrier or exempted from registration by the Controlled Waste (Registration of Carriers and Seizure of Vehicle Regulations 1991). A waste transfer note must be completed and signed giving a written description of the waste, which is sufficient to enable the receiver of the waste to handle it in accordance with his or her own duty of care. The provisions concerning waste transfer notes are set out in the Environmental Protection (Duty of Care) Regulations 1991 (as amended). Failure to comply with these provisions is an offence, with a penalty of a fine not exceeding £5000 up to an unlimited fine in Crown court.

Hazardous Waste Regulations 2005 (HWR 2005): HWR 2005 contains provisions about the handling and movement of hazardous waste. Consignment notes must be completed when any hazardous waste is transferred, which include details about the hazardous properties and any special handling requirements. If a consignment note is completed, a waste transfer note is not necessary. Material containing knotweed that has been treated with herbicide may be classified as hazardous waste.

Waste Management Licensing Regulations (WMLR 1994): WMLR state that failure to use a licensed operative could leave you liable to prosecution. The 'waste relevant objectives' are described in paragraph 4 of Schedule 4. These objectives require that waste is recovered or disposed of "without endangering human health and without using processes or methods which could harm the environment and in particular without risk to water, air, soil, plants or animals; or causing nuisance through noise or odours; or diversely affecting the countryside or places of special interest".

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), Site of Nature Conservation Interest (SNCI), Site of Importance for Nature Conservation (SINC), County Geology Sites (CGS), Roadside Verge Audit Biological Sites and Ancient Woodlands. CWSs, SNCI, SINC and CGSs are of at least county importance for wildlife/geology; 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 list of habitats and species of principal importance under Section 41 NERC Act (2006) in England includes 56 habitats and 943 species first identified as priority habitats and species. The Local Authority has a duty to conserve habitats and species of principal importance; these habitats and species were previously identified as 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. Paragraph 99 ODPM Circular 06/2005 states: 'It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is granted'.

National Policy: The National Planning Policy Framework (NPPF) was revised on 20 July 2021 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, revised in July 2018 and updated in February 2019.

Chapter 15 of the NPPF (2021) 'conserving and enhancing the natural environment' sets out how the planning system 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.

Of note are the following paragraphs:

NPPF Paragraph 175 states that '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'.

NPPF Paragraph 179 states that '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. English National Parks and the Broads: UK Government Vision and Circular 2010 provides further guidance and information about their statutory purposes, management and other matters. For the purposes of paragraphs 176 and 177, whether a proposal is 'major development' is a matter for the decision maker, taking into account its nature, scale and setting, and whether it could have a significant adverse impact on the purposes for which the area has been designated or defined. Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system. Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them'.

NPPF Paragraph 180 states that '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 improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.

NPPF Paragraph 181 states that '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'.



NPPF Paragraph 182 states that 'The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site'.

Local Policy - Cornwall

Cornwall Local Strategic Plan Policies 2010 - 2030

The latest Local Plan was adopted on 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 22 is reinforced with the pending Cornwall Council European Sites Supplementary Planning Document (SPD) .

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).

Cornwall Council Planning for Biodiversity Document

This document was adopted on 16th October 2018 by Cornwall Council and is a material consideration in planning decisions. It is supplementary to policies of the Cornwall Local Plan: Strategic Policies (2016). Considering the amended NPPF (2018) and the Council's approach to calculating and securing Environmental/Biodiversity Net Gain, the document will be reviewed alongside engagement on the Council's approach to Net Gain and adopted in a revised form as a Supplementary Planning Document, forming part of a suite of adopted guidance designed to promote good practice in the built and natural environment in Cornwall.

Cornwall Council Terrestrial European Sites Supplementary Planning Document (SPD)

'This SPD provides a solution for Appropriate Assessment and mitigation for those submitting planning applications that fall within the zones of influence of European protected sites in Cornwall, and where recreational disturbance is the only Habitat Regulations issue. It sets out a strategic approach to the provision of mitigation for an increase in potentially harmful recreational impacts arising from new housing and tourism growth. The intention of this strategically led mitigation is to provide the best joined up solution for the European sites management to ensure their future conservation status. This approach addresses the requirements of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and in doing so provides individual developers with a standard solution to Appropriate Assessment and mitigation. This SPD explains where Appropriate Assessment and mitigation of recreational impacts is required and why and sets out the solutions to achieving this'.

Biodiversity Net Gain: A how to guide for the development process - <https://www.cornwall.gov.uk/media/muhmug45/draft-biodiversity-net-gain-guidance-for-developers-and-planners-web.pdf>

'This aim of this document is to enable developers and planners to understand how Biodiversity Net Gain will apply to planning applications in Cornwall. The document will overview the core concepts of Biodiversity Net Gain and Biodiversity Metrics, describe the typical process for successful validation of planning applications and explain what steps developers need to take to have a successful Net Gain application. It will also give guidance on fulfilling ongoing Biodiversity Net Gain requirements into the future and what to do when struggling to achieve Biodiversity Net Gain onsite'.

Draft Chief Planning Officers Advice Note: Biodiversity Net Gain in Cornwall - <https://old.cornwall.gov.uk/media/43031716/draft-chief-planning-officer-note-biodiversity-net-gain.pdf>



The Environment Act (2021) requires all developments to achieve a minimum 10% Biodiversity Net Gain. Cornwall Council has adopted this policy as set out in the Draft Chief Planning Officers Advice Note and requires all major developments to quantify and describe habitat loss using the latest Biodiversity Metric and achieve a minimum 10% biodiversity net gain.

Cornwall's Environmental Growth Strategy 2020 - 2065 - https://old.cornwall.gov.uk/media/24212257/environmental-growth-strategy_jan17_proof.pdf

Cornwall's Environmental Growth Strategy provides a long-term framework for Cornwall and the Isles of Scilly to not just conserve, but to grow nature in line with the Environment Act (2021). Environmental growth is about both protecting and enhancing nature, ensuring that there is more of it, and that it is bigger, better, more diverse, and more connected. A Nature Recovery Network has been identified and mapped by LAGAS Natural Capital Information and Management Hub.

Climate Emergency Development Plan Document (Anticipate adoption date: 21st Feb 2023 - https://www.cornwall.gov.uk/media/1pzjuzln/appendix-3-finalclimate-emergency-dpd-appendix-3-final-with-map_p1.pdf)

Policy C1 - Climate Change Principles: Development in Cornwall should represent sustainable development and manage our natural, historic and cultural assets wisely for future generations. Of particular relevance are the following objectives:

2. Mitigate against and improve resilience to the effects of climate change;
3. Contribute positively to the health, wellbeing and resilience of our communities and the natural world;
4. Use and reuse land efficiently and minimise impact of development on soils through over compaction, pollution or reduction in the quality of soil and encourage regenerative practice to conserve the capacity of soils for sustainable production of food, water, raw materials and energy;
5. Contribute positively to environmental growth, protecting irreplaceable habitats and the integrity of ecosystems, restoring natural processes and strengthening nature recovery networks, and ensuring a net gain for biodiversity.
7. Conserve and enhance our natural and historic environment and cultural heritage according to their international, national and local significance and increase built and natural environment distinctiveness through locally distinctive, high quality and sustainable design and multi-functional green infrastructure provision;
8. Avoid or minimise light, water, air and noise pollution and improve or maintain air and water quality;
9. Protect and enhance carbon storage in our natural environment (including the marine environment); and
10. Regenerate, improve or maintain the natural functioning of coastal and river processes, avoiding areas at risk of flooding and coastal change and further reducing flood risk elsewhere wherever possible.

Policy G1 - Green Infrastructure Design and Maintenance: Green infrastructure should be central to the design of schemes, ensuring permeability of the site for wildlife and people and



creating a multi-functional network of spaces and uses. All developments should be planned around the protection and enhancement of nature. Development proposals will be expected, where appropriate to the scale and nature of the development, to meet the following principles of green infrastructure design:

1. The green infrastructure should form a multifunctional network through the creation of linear and other green infrastructure features to provide and enhance natural connections using important local character features, including existing planting, trees, groups of trees, copses, wetland, hedgerows and opportunities for wild food foraging as the key starting point for green infrastructure proposals and retain, reinforce and embed them into the design of the development to create distinctive places with permeable boundaries that reference, reflect and enhance the local environment; and
2. The green infrastructure shall be accessible for all with high levels of accessibility in public areas, and promote health, wellbeing, community and cohesion and active living; and
3. The green infrastructure shall incorporate sustainable drainage and blue infrastructure wherever possible and create better places for people and wildlife; and
4. The green infrastructure shall be resilient to climate change, minimise the development's environmental impact and enhance the quality of water, soil and air, aiding resilience and adaptation to climate change; and
5. Priority shall be given in landscaping schemes and natural planting to at least 50% pollinator friendly planting of predominantly native species; and
6. Street trees and other greening shall be integrated into street design and public open spaces wherever possible while remaining sympathetic to the historic environment. Streets should be designed to accommodate tree pits, whilst maintaining the space for the necessary runs of services (e.g. water, electric, sewerage); and,
7. The design and maintenance of green infrastructure shall conserve and enhance the historic environment and contribute to local distinctiveness; and
8. Homes should have access to a well-proportioned and well-orientated garden (generally equal in size to the footprint of the house) or other communal green space that provides a cohesive and useable space which is suited to a range of activities and space for nature; and,
9. The development shall make provision for long-term post-development management and maintenance for all green infrastructure, including provision for community representation and management; and,
10. The development proposal shall include a scheme for the provision of bird and bat boxes and bee bricks tailored to habitat conditions existing on or being created on and/or adjoining the site including the location and clustering (as appropriate) of those measures. These should normally be provided at the rate of one measure per unit, provided in the most suitable locations, either as single units or a cluster of such (e.g. close to hedgerows and flightpaths).

Policy G2 - Biodiversity Net Gain: 1. All development proposals (except those defined as exempt in secondary legislation) must achieve a minimum of 10% Biodiversity Net Gain (or any higher percentage mandated by national policy/legislation) over the pre-development site value as measured by the latest version of the DEFRA Biodiversity Metric



In advance of national mandating of biodiversity net gain this policy shall only apply to major development proposals.

2. Proposals for Biodiversity Net Gain must:

- a) be supported by core biodiversity gain information;
- b) be secured for at least a 30 year period from the substantive completion of the development;
- c) be delivered in accordance with an agreed management plan;
- d) follow the mitigation hierarchy set out in National Policy and Local Plan Policy 23(3) and (4) and demonstrate evidence of adequate avoidance and mitigation measures. Biodiversity net gain should be additional to any habitat creation required to mitigate or compensate for impacts; and
- e) aim to achieve the required net gain onsite within the site boundary.

3. where a proposal adequately demonstrates in the Biodiversity Gain Plan that the mitigation hierarchy has been followed and the required net gain, or any compensation for lost biodiversity cannot be achieved onsite within the site boundary, it must secure the alternative provision of the required biodiversity units as registered offsite gains through:

- a) the purchase of registered offsite biodiversity units to enable provision to be made by an approved biodiversity provider; provided the in-perpetuity management and monitoring of the receptor site can be assured; or
- b) direct provision of the habitat types in a suitable location by the applicant provided the in-perpetuity management and monitoring of the offset site can be assured; or
- c) a Biodiversity Offset Contribution to the Cornwall Council Habitat Bank.
- d) the purchase of statutory Biodiversity Credits from National Government.

4. The receptor site for any local offsite biodiversity gains should have regard to the local priorities for nature as set out in any adopted Local Nature Recovery Strategy to be provided, be in a suitable location where local climatic conditions suit the type of offset offsite habitat to be provided, informed by a comprehensive understanding of habitats and species associated with the site and should avoid the best and most versatile agricultural land.

Minor development (as defined in secondary legislation) shall demonstrate biodiversity net gains in accordance with a Cornwall Council approved Small Site Biodiversity Metric.

Policy G3 – Canopy: 1. All major development should provide, through the retention of existing and or / the establishment of new, canopy coverage equal to at least 15% of the site area (excluding areas of the site that are priority habitat types) in accordance with a Cornwall Council approved calculator or metric.

2. Any proposal to remove canopy on the site should be justified in accordance with the canopy mitigation hierarchy.

3. Where a pre-development site already contains canopy that exceeds the 15% requirement, the development proposal should ensure the retention of as much canopy as possible on site in line with the mitigation hierarchy and should justify the losses proposed. An alternative canopy cover



percentage, as evidenced by a council approved canopy metric, should be agreed with the Local Authority.

4. Where there are significant ecological, historical, landscape or operational reasons to justify a canopy requirement of less than 15% on site and this can be fully evidenced, an alternative percentage of canopy provision shall be agreed with the Council.

5. Minor development sites (with the exception of householder development and Change of Use (not creating new dwellings or additional floorspace) are not required to demonstrate the 15% canopy target but should explore all options in relation to canopy provision, and take appropriate measures to both avoid or reduce harm to existing onsite trees. Proposals shall include where appropriate and practicable provision of new canopy.

6. New canopy should provide a mix of species that are resilient to pests, diseases and climate change and should be delivered in sustainable locations, in a manner that supports the growth and spatial requirements of canopy. New canopy should positively contribute to the climate resilience of the site in a manner which protects and enhances existing canopy.

Policy G4 – Local Nature Recovery Networks: Where development is sited within or adjacent to an adopted Local Nature Recovery Network it should demonstrate how the proposal will maintain and enhance the integrity and connectivity of the network and support the principles of the Local Nature Recovery Strategy.

Policy RE1 – Renewable and Low Carbon Energy: Proposals for renewable and low carbon energy-generating and distribution networks, will be supported in the context of sustainable development and climate change.

Policy CC1 – Coastal Vulnerability Zone: Relevant parts include:

1) New development including replacement buildings (unless classified as exempt) within the Coastal Vulnerability Zone will only be permitted where it can be demonstrated through a Coastal Vulnerability Assessment that it:

a) Is consistent with policy statements for the local policy unit in the current Shoreline Management Plan; and

b) would not impair the ability of communities and the natural environment /biodiversity to adapt sustainably to the impacts of coastal change (including coastal squeeze).

3) Soakaways and other infiltration based sustainable systems within 5 metres of the Cornwall Coastal Vulnerability Map (CCVM) zone or discharge of surface water over or down the face of a cliff will not be permitted unless demonstrated through a Coastal Vulnerability Assessment that the proposed drainage method would not adversely affect coastal stability.

Policy CC3 – Reduction of Flood Risk: Development proposals shall be designed to reduce flood risk to the application site and its surroundings.

Policy CC4 – Sustainable Drainage System (SuDS) Design: SuDS proposals shall prioritise the use of above non-buried SuDS, including retrofit SuDS and where feasible within existing town centres, commercial and retail areas, and redevelopment projects and shall be designed to achieve the following criteria:

1) Maximise the benefits to the sense of place, amenity and biodiversity; and



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- 2) Reduce the overall level of flood risk on the site and the surrounding areas; and
 - 3) Provide attractive, biodiverse and non-buried systems; and
 - 4) Incorporate SuDS within greenspace, blue and green infrastructure, amenity, and biodiversity schemes to manage surface water flows, improve water quality, educate and improve the wellbeing of communities; and
 - 5) Where built into public green or open space have sufficient room to provide a safe, naturalised system without the need for fencing or barriers; and
 - 6) Provide for simple and straightforward maintenance, including the provision of a plan and mechanism for on-going maintenance.