



# Ecological Mitigation and Enhancement Strategy

Paddock Cabin, Poole Farm, Plymouth

Plymouth City Council

July 2023

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# Contents

1	Introduction, background and approach.....	1
1.1	Introduction.....	1
1.2	Legislation and planning policy .....	1
1.3	Approach .....	2
2	Ecological baseline and evaluation .....	4
3	Ecological impact assessment.....	12
3.1	The proposed development .....	12
3.2	Ecological impact assessment .....	12
3.3	Further mitigation measures.....	15
3.4	Biodiversity Net Gain.....	15
3.5	Summary of residual effects.....	15
3.6	Cumulative effects.....	15
3.7	Conclusion .....	15
4	References.....	16

## Tables

Table 2.1:	Designated sites of nature conservation importance .....	5
Table 2.2:	Habitats.....	6
Table 2.3:	Protected and notable species .....	7
Table 3.1:	Summary of ecological assessment .....	13

## Figures

Figure 1: Site Location Plan

Figure 2: Proposed Cabin Design (Overview)

Figure 3: Phase 1 Habitat Survey Plan, Target Notes and Photographs

## Appendices

Appendix 1: Wildlife Legislation

Appendix 2: Species Legislation and Conservation Status

Appendix 3: Baseline Evaluation Criteria

Appendix 4: National Planning Policy

Appendix 5: Local Planning Policy

Appendix 6: Designated Sites of Nature Conservation Importance

Appendix 7: Biodiversity Net Gain Assessment

# 1 Introduction, background and approach

## 1.1 Introduction

1.1.1 EAD Ecology was commissioned by Plymouth City Council to undertake an Ecological Mitigation and Enhancement Strategy (EMES) of a proposed timber frame cabin non-inhabited education space at Poole Farm, Plymouth (approximate OS Grid Ref: SX 50345855; refer to Figures 1 and 2), hereafter referred to as 'the site'. This report documents the EMES, which was undertaken in accordance with BS42020:2013 and following Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines (2018). It includes the following sections:

- Description of the existing ecological baseline;
- Identification of the potential impacts of the proposals during and post-construction;
- Identification of proposed avoidance, mitigation compensation measures for negative impacts, and further enhancement measures;
- Summary of residual ecological effects, i.e., those occurring after mitigation;
- Consideration of cumulative effects; and
- Conclusions, including assessment of compliance with wildlife legislation and planning policy.

1.1.2 The proposals are for a non-inhabited education space comprising a timber framed, clad cabin on stilts with a green roof. The cabin has been designed to be on stilts with no foundations or earthworks required other than 36 small (400mm diameter and 800mm deep) postcrete foundations to support each stilt. All other grassland underneath the cabin will be retained and will continue to be grazed by sheep.

1.1.3 Any external lighting will be positioned under the cabin canopy to avoid any upward light-spill; lighting will be minimised (low wattage, downward facing with low lumen).

## 1.2 Legislation and planning policy

### Wildlife legislation

1.2.1 The following wildlife legislation is relevant to the proposed development; refer to Appendix 1:

- Conservation of Habitats and Species Regulations 2017 (as amended);
- Wildlife and Countryside Act 1981 (as amended);
- Countryside and Rights of Way Act 2000;
- Natural Environment and Rural Communities Act 2006;
- Protection of Badgers Act 1992; and
- Hedgerow Regulations 1997 (as amended).

### National planning policy

1.2.2 The National Planning Policy Framework (NPPF; 2021) includes the Government's policy on the protection of biodiversity through the planning system. A summary of the relevant paragraphs of the NPPF is provided in Appendix 4.

### Local planning policy

1.2.3 Within the Plymouth and South West Devon Joint Local Plan 2013-2024 (adopted by Plymouth City Council on 26 March 2019), the following policies are of relevance to this report:

- Policy DEV26: Protecting and enhancing biodiversity and geological conservation.
- Policy DEV28: Trees, woodlands and hedgerows.

Policy SPT12: Strategic approach to the natural environment.

1.2.4 Within the Plymouth Plan (2011-2031) the following policy is of relevance:

Policy GRO6 Delivering Plymouth's natural network

1.2.5 A summary of the relevant Local Planning Policies is provided in Appendix 5.

### 1.3 Approach

#### Ecological baseline

1.3.1 The ecological baseline was derived from desk study information provided by Devon Biodiversity Records Centre (DBRC) and site surveys undertaken on the wider Poole Farm site to the east and north-east of the site by EAD Ecology in 2016, 2018 and 2020 (comprising preliminary bat roost inspections of buildings, bat emergence/re-entry surveys, bat activity surveys and breeding bird, reptile and hazel dormouse surveys). In addition, a habitat survey of the site was undertaken in May 2023; further details are provided below.

#### Desk Study

1.3.2 Biodiversity information was requested from a study area of 2km radius around the wider Poole Farm site boundary (extended to 4km for bats) from Devon Biodiversity Records Centre (DBRC) in 2018. Information requested included the location and details of the following:

Designated sites of nature conservation importance (statutory and non-statutory); and  
Previous records of protected and/or notable species, including Priority Species (Species of Principal Importance for Conservation in England listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) and Devon Biodiversity Action Plan (BAP) Priority Species.

1.3.3 Information was also obtained from the following websites (June 2023):

<https://magic.defra.gov.uk/MagicMap.aspx> – Information on protected sites;  
<http://jncc.defra.gov.uk> – information on protected sites, Priority Habitats and Species; and  
<https://www.gov.uk/government/organisations/natural-england> – information on protected sites and standing advice.

#### Site Survey

1.3.4 An Extended Phase 1 Habitat survey of the site was undertaken on 25 May 2023. The survey followed guidelines published by JNCC (2010) and Institute of Environmental Assessment (1995), and identified the main habitat types on the site and the presence/potential presence of protected and notable species. The results of the survey were detailed on a Phase 1 Habitat plan, with target notes used to identify specific features of ecological interest; refer to Figure 3. Following the Extended Phase 1 Habitat survey, no further (Phase 2) surveys were considered necessary to inform the assessment.

1.3.5 A Biodiversity Net Gain (BNG) assessment was undertaken using the Defra 'Biodiversity Metric 4.0' calculation tool, with reference to supporting documents (Natural England 2023a, 2023b and 2023c). The BNG assessment included calculations for pre-development (baseline) and post-intervention habitats within the site boundary. A Habitat Condition Assessment was undertaken on 25 May 2023, at the same time as the Extended Phase 1 Habitat survey; refer to Appendix 7.

#### Survey limitations

- 1.3.6 There were no limitations to the Extended Phase 1 Habitat survey or Habitat Condition Assessment.

#### Evaluation of ecological features

- 1.3.7 The importance of the ecological features identified was evaluated using criteria for habitats and species based on CIEEM guidelines (2018). Ecological importance was classified using an eight-level geographic scale from 'Sub-Parish' (low) to 'International' (high); refer to Appendix 3. Legal protection of species is considered in Section 4 (mitigation) and does not specifically form part of the valuation process.

#### Confirmation of 'important' ecological features

- 1.3.8 Features were identified that were considered 'important', in accordance with CIEEM guidelines (2018), and therefore subject to further detailed assessment. Features that were unlikely to be affected by the project, or were sufficiently widespread, unthreatened or resilient to potential project impacts, were not considered important in the context of the proposed development, and were not, therefore, subject to further assessment.

#### Identification of potential impacts

- 1.3.9 Potential impacts on the important ecological features were described for the construction and post-construction phases of the development.

#### Avoidance, mitigation, compensation and enhancement measures

- 1.3.10 The design of the cabin (refer to Figure 2) was informed by the ecological baseline, including the presence/predicted presence of protected species. Therefore, the impact assessment was of a partially-mitigated scheme. Additional avoidance, mitigation, compensation and enhancement measures for the construction and post-construction phases of the development were identified.

#### Residual effects

- 1.3.11 An assessment of the residual positive, negative or neutral ecological effects was undertaken following CIEEM (2018) guidelines. The effect timescale was given as:

Acute, immediate and discrete.

Short-term: 0-3 years.

Medium-term: 3-10 years.

Long-term: 10+ years.

- 1.3.12 Effects were described at a geographical scale (refer to Appendix 3); effects identified at Sub-Parish level and below were not considered 'Significant'.

- 1.3.13 The conclusion to the assessment confirms any significant residual effects, compliance with national planning policy (including the avoidance of 'significant harm' in accordance with Paragraph 180 of the NPPF, 2021), and compliance with relevant policies of the Plymouth and South West Devon Joint Local Plan 2013-2024 and the Plymouth Plan (2011-2031).

## 2 Ecological baseline and evaluation

2.1.1 The ecological baseline conditions for the site and surrounding area are summarised in Tables 2.1 (designated sites), 2.2 (habitats) and 2.3 (protected and notable species). Each table also includes an evaluation of the ecological features, and confirmation of 'important' ecological features in the context of the proposed development, i.e., those that have been included in, or excluded from, further assessment.

2.1.2 Refer also to:

Appendix 2: Species legislation and conservation status.

Appendix 6: Designated sites of nature conservation importance.

Figure 3: Phase 1 Habitat Survey Plan.

Table 2.1: Designated sites of nature conservation importance

Site name	Distance / direction from site	Reason for designation	Importance	Included in detailed assessment?
European and nationally designated sites				
Plymbridge Lane and Estover Road Site of Special Scientific Interest (SSSI)	1.3km north-west at closest point	The site supports the only known wild populations of Plymouth Pear ( <i>Pyrus cordata</i> ), a species protected under the Wildlife and Countryside Act, 1981 (as amended).	National	No. No mechanisms or pathways identified likely to affect this site.
Locally designated sites				
Bircham Valley Local Nature Reserve (LNR)	On-site	Designated for its habitats, including woodland, scrub, grassland, streams and a pond. The habitats within the footprint of the proposals are of low ecological value (Sub-Parish) and are considered to make limited contribution to the LNR designation; however, higher value habitat within the context of the LNR (e.g., stream) has potential to be indirectly affected during construction.	District	Yes. Stream habitat within LNR could be indirectly affected by proposals.
Three further LNRs (Seaton and Lower Bircham LNR, Forder Valley LNR and Efford Marshes LNR)	0-1km – 1.4km	Sites include woodland, meadows, stream, willow carr thickets, ponds, marshland and scrub.	District	No. No mechanisms or pathways identified likely to affect this site.
Plymouth Biodiversity Network Site	On-site	Poole Farm Biodiversity Network Feature, along with other green space within Plymouth, is identified as a Plymouth Biodiversity Network Site. These are 'stepping stones' between network sites and supporting parkland, scattered trees, poor semi-improved grassland, amenity grassland and allotments. Given the limited footprint of the proposals and limited external lighting, potential adverse effects on the	Parish - District	No. Negligible potential impact on the network function of the Plymouth Biodiversity Network.



Table 2.1: Designated sites of nature conservation importance

Site name	Distance / direction from site	Reason for designation	Importance	Included in detailed assessment?
		network function of the Plymouth Biodiversity Network are considered negligible.		
Further Plymouth Biodiversity Network Sites	0.1km – 2.0km	Sites include road verges, scrub, woodland and marsh.	Parish - District	No. Negligible potential impact on the network function of the Plymouth Biodiversity Network.
Five County Wildlife Sites (CWS)	1.1km – 2.0km	Sites include ancient semi-natural broadleaved woodland, species-rich grassland, wet woodland and fen habitat.	County	No. No mechanisms or pathways identified likely to affect these sites.

Table 2.2: Habitats

Habitat	Description	Importance	Included in detailed assessment?
Habitats within the site			
Poor semi-improved grassland, dense bramble scrub and fences.	<p>Poor semi-improved grassland dominated by Yorkshire fog with other species including sweet vernal grass, perennial rye-grass, greater bird's-foot trefoil, ribwort plantain and soft-rush.</p> <p>A wooden fence bounded the eastern and southern boundaries, with a small patch of dense bramble scrub growing around the fence in the south-eastern corner. Refer to Figure 3 and associated Target Notes [TNs].</p>	Sub-Parish	No. Common and widespread habitat of limited biodiversity value that will be subject to minor impacts.

Table 2.2: Habitats

Habitat	Description	Importance	Included in detailed assessment?
Adjacent habitats			
Bare ground / poor semi-improved grassland / running water / pond / semi-natural broadleaved woodland / scattered broadleaved trees	Poor semi-improved grassland was present to the north and west of the site. Further to the west was a rough track with a stream beyond, located approximately 23m from the site boundary, beyond which lay semi-natural broadleaved woodland. Two scattered semi-mature oak trees and two semi-mature ash trees were located adjacent to the eastern site boundary. A small pond was located approximately 10m to the south of the site.	Sub-Parish – Parish	Yes. Potential for indirect effects during construction on stream to west. Negligible potential impacts on remaining habitats.

Table 2.3: Protected and notable species

Species	Desk study	Site survey	Importance	Included in detailed assessment?
Plants	Records of 46 species of notable plants (post 2000) including Nationally Scarce, Nationally Notable, Priority and Devon Notable and Devon Rarity species. Records of controlled plant species listed on Schedule 9 of the WCA 1981 (as amended), included curly waterweed, Japanese knotweed, montbretia, rhododendron and water fern.	No notable or invasive plant species were recorded during the site survey and the presence of such species was considered unlikely.	Negligible	No.
Invertebrates	Records of 21 species of notable invertebrate (post 2000) were recorded within the	The presence of significant populations of notable invertebrates was considered	Sub-Parish	No

Table 2.3: Protected and notable species

Species	Desk study	Site survey	Importance	Included in detailed assessment?
	2km study area. This included Priority Lepidoptera species.	unlikely given the sub-optimal quality of the habitats present and the limited areas affected.		
Amphibians	<p>Common frog, common toad and an unidentified newt species have been recorded within the study area. These species receive limited legal protection; common toad is a Priority Species.</p> <p>The site lies within a Devon Great Crested Newt Consultation Zone (Devon County Council, 2016); these are 5km zones around records (post 1970). Great crested newt and their habitats are legally protected.</p>	<p>No suitable breeding habitat for amphibians occurred on the site. A small pond was present approximately 10m south of the site. The pond provided suitable breeding habitat for common amphibians, potentially including common toad. The presence of great crested newt was discounted due to the urban location and lack of any previous records of this species from the area.</p> <p>The patch of dense bramble scrub and poor semi-improved grassland on site provided sub-optimal terrestrial habitat for amphibians, but common amphibians, including common toad, could be present within the site. Given the limited footprint of the proposals, loss of terrestrial habitat for amphibians will be limited.</p>	Sub-Parish	Yes
Reptiles	The desk study identified records of grass snake,	The patch of dense bramble scrub and poor semi-improved	Sub-Parish	Yes

Table 2.3: Protected and notable species

Species	Desk study	Site survey	Importance	Included in detailed assessment?
	common lizard and slow worm. All reptiles are legally protected and are Priority Species. A 'low' population of slow worms was recorded within the wider Poole Farm site during surveys in 2018.	grassland on site provided sub-optimal habitat for reptiles. It is possible that common reptiles, such as slow worm, could be present within the site.		
Birds	20 notable species of bird have been recorded within the study area (post 2000).	The site provided limited foraging habitat for common and widespread birds. It is possible that birds may utilise the patch of dense bramble scrub for nesting, but no impacts to the scrub are considered likely. The grassland is grazed by sheep, therefore ground-nesting birds were considered unlikely to use the site.	Sub-Parish	No
Hazel dormouse	There are no records of hazel dormouse within the 2km study area. Hazel dormouse is legally protected and a Priority Species.  No evidence of dormouse was found within the wider Poole Farm site during surveys in 2018.	There was no suitable habitat for dormouse within the site (the bramble scrub was isolated and not considered suitable). Presence of dormouse was discounted.	Negligible	No
Badger	There are a number of records of badger within 2km of the	No setts or other signs of badger activity were recorded on site. Badgers may occasionally forage	Sub-Parish	No

Table 2.3: Protected and notable species

Species	Desk study	Site survey	Importance	Included in detailed assessment?
	site. Badgers and their setts are legally protected.	or pass through the site, but any effects are likely to be negligible.		
Bats	<p>There are a number of bat records from within the 4km study area. These include brown long-eared bats, common pipistrelle, Nathusius' pipistrelle, soprano pipistrelle, Daubenton's, noctule, lesser and greater horseshoe bat, Natterer's bat, serotine and barbastelle. All bats and their roosts are legally protected and a number are Priority Species.</p> <p>During surveys carried out by EAD Ecology in 2016, 2018 and 2020 of the wider survey area, bat roosts were recorded in offsite buildings which were in proximity to the site. These included a common pipistrelle satellite roost in the Farmhouse, approximately 39m to the east, and an occasional day roost for an individual lesser horseshoe bat and a common pipistrelle day roost in the Old Dairy, approximately 62m to the east of the site.</p>	<p>The site provided limited foraging opportunities for bats. There was no roosting habitat within the site boundary. Four semi-mature trees adjacent to the eastern site boundary were assessed as having 'negligible' bat roosting suitability.</p> <p>External lighting has minor potential to disrupt foraging/commuting light-sensitive bats that may use the site or adjacent habitat.</p>	Sub-Parish	Yes

Table 2.3: Protected and notable species

Species	Desk study	Site survey	Importance	Included in detailed assessment?
Otter	There are a number of records of otter within the 2km study area. Otter is a legally protected and a Priority Species.	No holts or suitable resting places were recorded within or adjacent to the site.	Negligible	No
Water vole	There are no records of water vole within the 2km study area. Water vole is legally protected and a Priority Species.	No suitable habitat for water vole was present on site.	Negligible	No
Eurasian beaver	Beavers were released into an enclosure in the wider Poole Farm site (outside of the site boundary) in 2020. Beavers are currently absent from the enclosure.	The site lies outside the beaver enclosure and the proposals will not affect this species, if reintroduced back into the enclosure in the future.	Negligible	No
Other mammals	Records of hedgehog were identified within 2km of the site boundary. Hedgehog is a Priority Species.	The site provided suitable habitat for hedgehog and occasional use of the site by this species was assumed.	Sub-Parish	No. Given the limited footprint of the proposed works and the nature of the habitats affected, impacts are considered to be negligible.

### 3 Ecological impact assessment

#### 3.1 The proposed development

##### Development description

- 3.1.1 The proposals are for a non-inhabited education space comprising a timber frame, clad cabin on stilts with a green roof.

##### Ecological design and avoidance measures

- 3.1.2 The cabin has been designed to be on stilts with no foundations or earthworks required other than 36 small (400mm diameter and 800mm deep) postcrete foundations to support each stilt. All other grassland underneath the cabin will be retained and will continue to be grazed by sheep.

- 3.1.3 The design includes a green roof measuring approximately 130m<sup>2</sup>, which will be planted with native grasses and plants.

- 3.1.4 The following measures will also be implemented into the design:

Two bat boxes – located to avoid north-facing aspects.

Two sparrow ledges – located in a sheltered position from the prevailing wind, rain and strong sunlight, and out of the reach of predators.

Two swift boxes – located with a clear flight path for swifts to access the entrance hole, in a position that protects them from the midday sun and the worst of the weather, and out of reach of predators.

Two insect houses – located on south / south-eastern aspects.

- 3.1.5 External lighting will be kept to a minimum and will be positioned only under the cabin canopy in order to have minimal impact on nocturnal wildlife, including bats, badgers and hedgehogs. The lights will be low wattage, downward facing with low lumen and minimal light spill.

#### 3.2 Ecological impact assessment

- 3.2.1 Table 3.1 provides a summary of the ecological impact assessment for each receptor identified as 'important' in the context of the proposed development (refer to Table 2.1), and includes:

Potential impacts, both during and post-construction.

Proposed avoidance, mitigation, avoidance and enhancement measures.

Predicted residual effects.

Table 3.1: Summary of ecological assessment

Ecological feature	Potential unmitigated impact	Construction	Post-construction	Avoidance, mitigation, compensation and enhancement	Residual effect
Designated sites of nature conservation importance					
Bircham Valley LNR	The stream to the west of the site that is within Bircham Valley LNR could be affected from a pollution event during construction when foundations for the cabin stilts are installed.			All works will be undertaken in accordance with the relevant guidance regarding the prevention of pollution (i.e., as per <a href="https://www.gov.uk/guidance/pollution-prevention-for-businesses">https://www.gov.uk/guidance/pollution-prevention-for-businesses</a> ).	Neutral, not significant
Habitats					
Stream to the west of the site and pond to the south of the site	The stream to the west of the site and the pond to the south of the site could be affected from a pollution event during construction when foundations for the cabin stilts are installed.			All works will be undertaken in accordance with the relevant guidance regarding the prevention of pollution (i.e., as per <a href="https://www.gov.uk/guidance/pollution-prevention-for-businesses">https://www.gov.uk/guidance/pollution-prevention-for-businesses</a> ).	Neutral, not significant
Protected and notable species					
Amphibians and reptiles	Killing / injury of individual reptiles and amphibians during installation of foundations.			Habitat manipulation measures would be implemented to ensure that accidental killing or injury to reptiles and amphibians was avoided. Prior to installation of foundations, grassland within the site boundary would be strimmed / mown and kept short to discourage reptiles and amphibians out of the site and into adjacent suitable habitat.	Neutral, not significant



<p>Bats</p>	<p>Potential disturbance to light-sensitive species post-construction.</p>			<p>No external lighting would be installed, except for lighting under the cabin canopy. This lighting would be designed to direct light towards the cabin and prevent spill on to adjacent habitats. No lighting to be left on when the building is not in use.</p> <p>The lighting design would consider the following characteristics (BCT / ILP 2018):</p> <ul style="list-style-type: none"> <li>• LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.</li> <li>• Narrow Spectrum lights with no UV content.</li> <li>• Warm white; &lt;2700 kelvin to reduce blue light component.</li> <li>• Directional downlights and use of use of fore/rear shields (if required) to ensure light-spill to adjacent habitats is avoided.</li> <li>• Any external security lighting set on motion-sensors and short (1min) timers.</li> </ul>	<p>Neutral, not significant</p>
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### 3.3 Further mitigation measures

- 3.3.1 If the scrub is required to be trimmed back or removed, this would be undertaken outside of the main bird-breeding season (i.e., between October and February inclusive) or subject to a pre-clearance check by a suitably qualified ecologist to ensure that no nesting birds would be affected. If nesting birds were found, work would be delayed until all chicks had fledged.

### 3.4 Biodiversity Net Gain

- 3.4.1 The DEFRA Biodiversity Metric 4.0 indicates that development in accordance with the illustrative plans (refer to Figure 2) is predicted to result in an 83.32% net gain; refer to Appendix 7.

### 3.5 Summary of residual effects

- 3.5.1 Residual effects arising from the proposed cabin would be neutral and not significant for Bircham Valley LNR, stream and pond habitats in proximity to the site and for reptiles, amphibians or bats.

### 3.6 Cumulative effects

- 3.6.1 No cumulative effects are predicted. All residual effects would be limited to the development footprint, and not significant. The development would therefore not contribute to cumulative effects with other developments identified in the area.

### 3.7 Conclusion

- 3.7.1 There would be a small loss of semi-improved grassland within the footprint of the development associated with the installation of the foundations for the stilts; this loss would be mitigated by new habitat creation (green roof). With the provision of suitable mitigation, all residual effects to designated sites of nature conservation importance, habitats and legally protected species would be neutral and not significant. Overall, it is considered that the proposals would provide 'biodiversity gain' and would avoid 'significant harm' in accordance with the NPPF (2021), and would accord with relevant planning policies of the Plymouth and South West Devon Joint Local Plan 2013-2024 and the Plymouth Plan (2011-2031).

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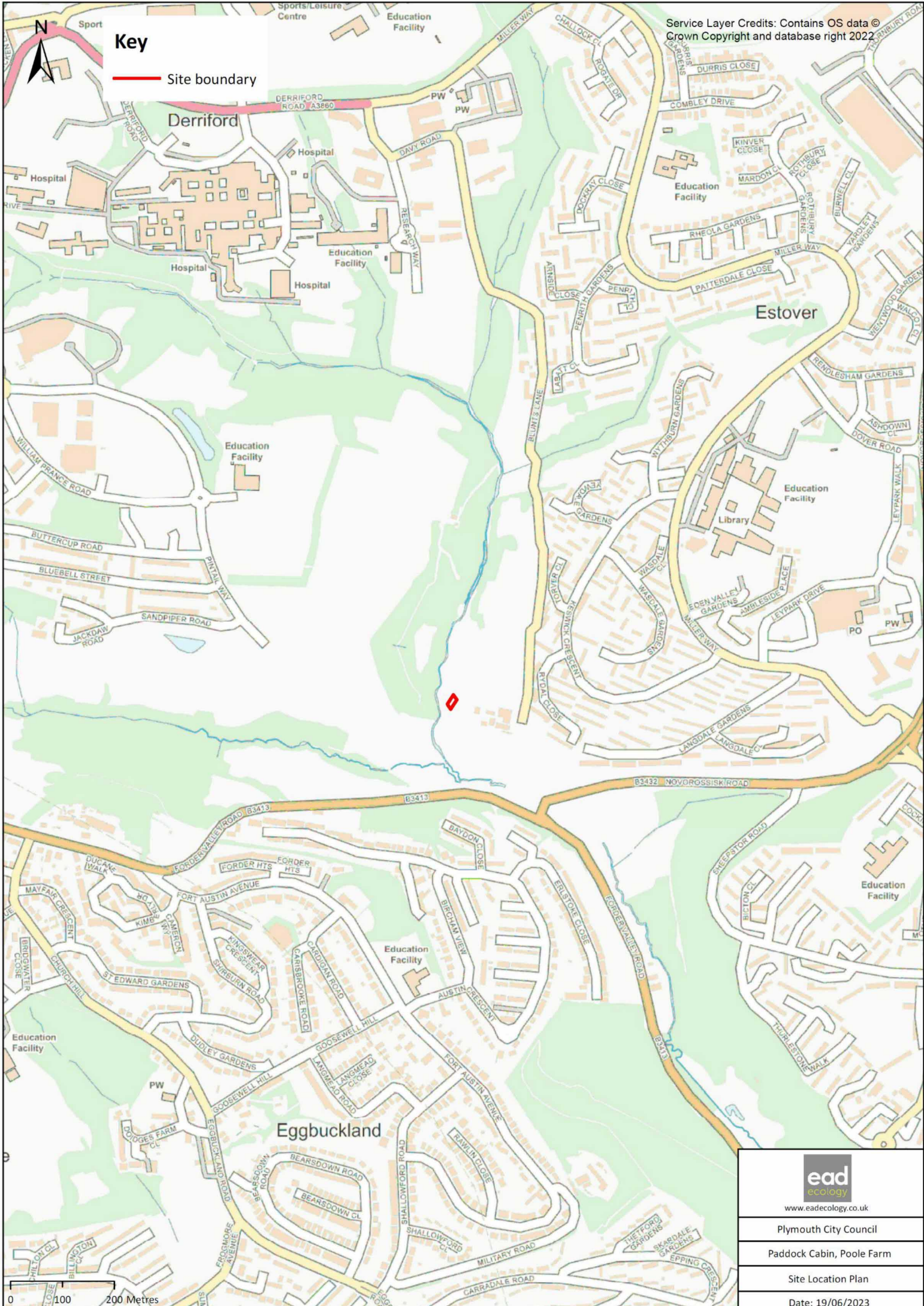
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## Figure 1: Site Location Plan



**Key**  
— Site boundary

Derriford

Estover

Eggbuckland



[www.eadecology.co.uk](http://www.eadecology.co.uk)

Plymouth City Council

Paddock Cabin, Poole Farm

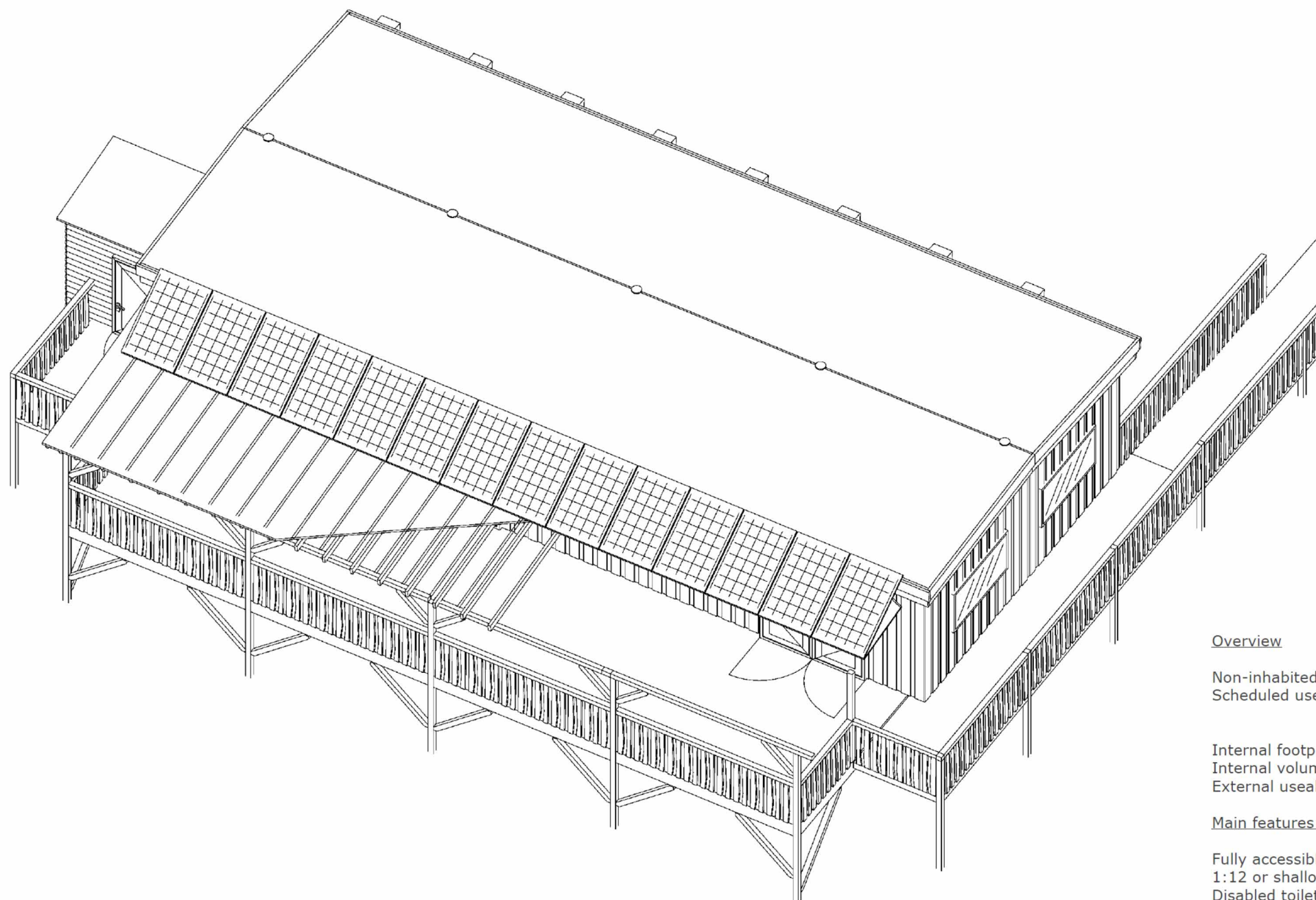
Site Location Plan

Date: 19/06/2023

## Figure 2: Proposed Cabin Design (Overview)



**This page: Overview illustration only - not to scale**



Overview

Non-inhabited education space for Wildlife Watching; located close to Poole Farm pond and river  
Scheduled used - access can be restricted by Plymouth Council in adverse weather

Internal footprint: 104 m<sup>2</sup>  
Internal volume: 312 m<sup>3</sup>  
External useable space (sheltered raised deck): 64 m<sup>2</sup>

Main features:

Fully accessible building including:  
1:12 or shallower wheelchair-accessible ramp from ground level  
Disabled toilet  
Multi-use internal space with sliding-door dividers

Sustainable and local materials throughout:







Intensive Green Roof  
South-West English felled Larch/Douglas Fir timber frame and cladding  
Minimal use of concrete

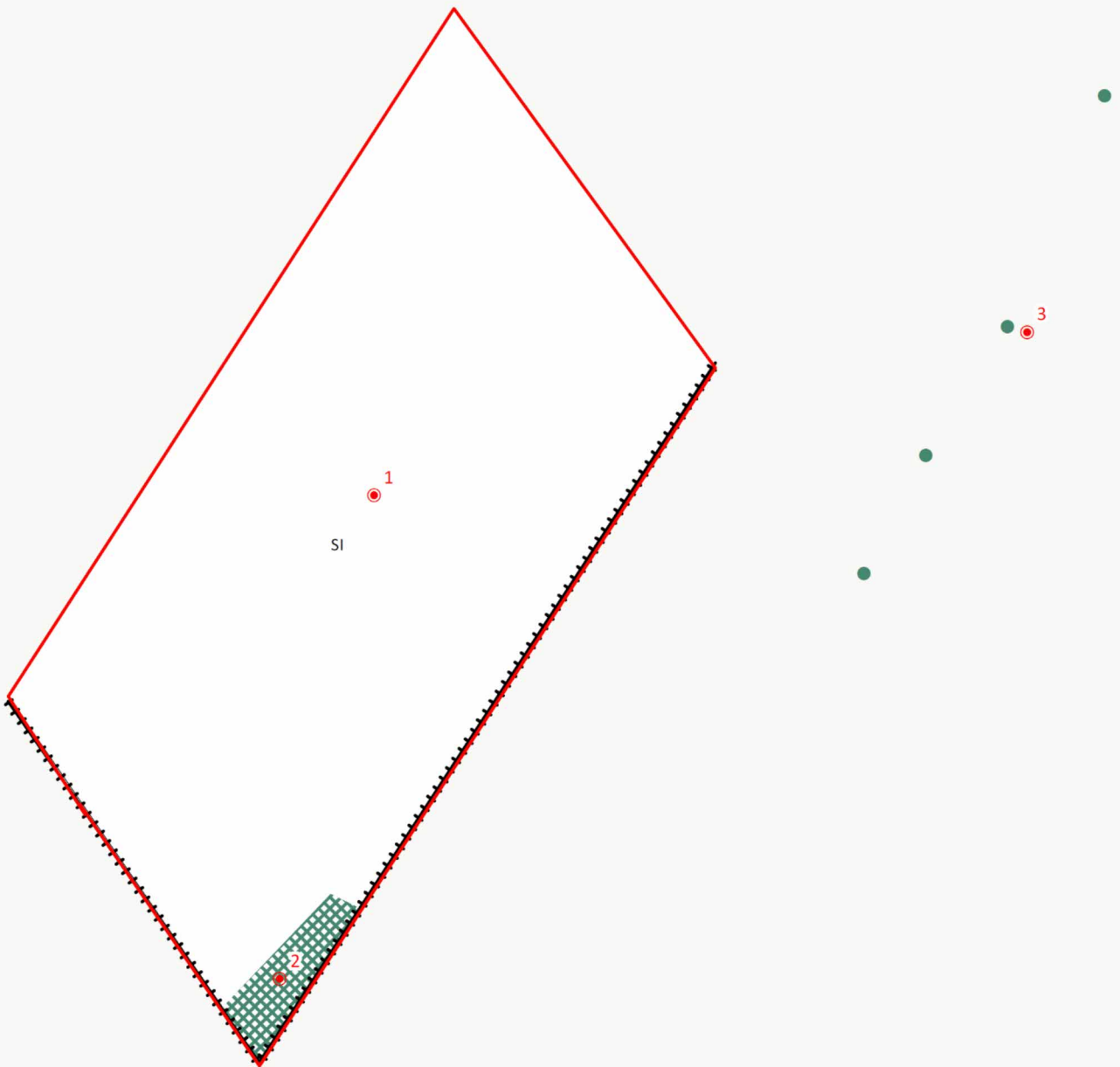
Figure 3: Phase 1 Habitat Survey Plan, Target Notes and  
Photographs







### Key

-  Dense scrub
-  Fence
-  Poor semi-improved grassland
-  Scattered broadleaved trees
-  Survey boundary
-  Target note



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Plymouth City Council
Paddock Cabin, Poole Farm
Phase 1 Habitat Survey Plan
Date: 19/06/2023

Target Note	Description
1	<p data-bbox="288 304 1418 405">Species-poor semi-improved grassland with a long sward height dominated by Yorkshire fog, with abundant sweet vernal grass, occasional perennial rye-grass, soft-rush, greater bird's-foot trefoil and rare creeping cinquefoil, ribwort plantain and broad-leaved dock.</p> 
2	<p data-bbox="288 1279 1037 1312">Dense patch of bramble scrub approximately 4m x 1m in area.</p> 



3

Two semi-mature pedunculate oak trees and two semi-mature ash trees off-site to the east of the site. No bat roost suitability.



## Appendix 1: Wildlife legislation

## Wildlife Legislation

### 1 Conservation of Habitats and Species Regulations 2017 (as amended)

These Regulations, also referred to as the 'Habitats Regulations', provide for the designation and protection of 'European Sites' (the National Site Network). They convey a statutory requirement for local planning authorities to undertake a 'Habitats Regulations Assessment' of the potential impacts of plans and projects, including development proposals, on European Sites. The provisions also include protection of 'European Protected Species' (EPS). Under the Regulations, local planning authorities have to consider three 'derogation tests' when deciding whether to grant permission for a development that affects an EPS, which are as follows:

- the development must be for over-riding public interest or for public health and safety;
- there are no satisfactory alternatives to the proposed development; and
- the favourable conservation status of the EPS concerned must be maintained.

### 2 Wildlife and Countryside Act 1981 (as amended)

This Act is the principal wildlife legislation in Great Britain. It includes provisions for important habitats to be designated and protected as Sites of Special Scientific Interest (SSSIs). Numerous plant and animal species, and the places that they use for shelter and protection, are also protected under the Act, including all birds, their nests and eggs.

### 3 Countryside and Rights of Way Act 2000

Referred to as the CROW Act, this legislation increases the protection of SSSIs and strengthens wildlife enforcement action. The Act also strengthens the protection of protected species under the Wildlife and Countryside Act 1981 (as amended) through the introduction of a new offence of 'reckless disturbance'.

### 4 Natural Environment and Rural Communities Act 2006

This Act places a duty on all public bodies and statutory undertakers to have due regard to the conservation of biodiversity in all their functions. It also requires the publication of a list of habitats and species of principal importance for the conservation of the biodiversity. This list, known as the Section 41 list, includes all Priority Habitats and Species of Principal Importance for the Conservation of Biodiversity in England.

### 5 Protection of Badgers Act 1992

This Act was introduced primarily for animal welfare reasons, as opposed to species conservation. It provides protection of badgers and their setts.

### 6 Hedgerow Regulations 1997 (as amended)

These Regulations include provisions for the protection of hedgerows and make it an offence to remove 'important' hedgerows without consent from the local planning authority. Where planning permission is granted for a development proposal, the removal of 'important' hedgerows is deemed to be permitted.

## Appendix 2: Species legislation and conservation status

## Species legislation and conservation status

### 1 Invertebrates

A number of UK invertebrates are protected under UK legislation, including the Wildlife and Countryside Act 1981 (as amended). In addition, numerous species are Priority Species.

### 2 Plants

All wild plants are protected against unauthorised removal or uprooting under Section 13 of the Wildlife and Countryside Act 1981 (as amended). Plants listed on Schedule 8 of the Act (e.g. stinking goosefoot, red helleborine, monkey orchid) are afforded additional protection against picking, uprooting, destruction and sale. Bluebell (*Hyacinthoides non-scripta*) is protected against sale only. Further species are also protected under the Conservation of Habitats and Species Regulations 2017.

Notable plant species include those that are listed as:

Nationally vulnerable – A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A-E for Vulnerable, and is therefore considered to be facing a high risk of extinction in the wild (Cheffings C M & Farrell L (Eds) (2005) Species Status No. 7 – The Vascular Plant Red Data List for Great Britain, JNCC (online).

Nationally scarce – species recorded in 16-100 hectads in Great Britain.

Nationally rare – species occurring in 15 or fewer hectads in Great Britain.

Section 14 of the Wildlife and Countryside Act 1981 (as amended) prohibits the planting of certain invasive plant species in the wild, or otherwise causing them to grow there. Prohibited plants are listed on Part 2 of Schedule 9 and include Japanese knotweed, Himalayan balsam and giant hogweed.

### 3 Amphibians

There are seven native amphibian species present in Britain. These are afforded varying degrees of protection under UK legislation. Great crested newts (*Triturus cristatus*) and their habitat are afforded full protection under UK legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it illegal to:

Deliberately capture, injure or kill a great crested newt.

Damage or destroy any place used for shelter or protection by great crested newts, including resting or breeding places; or intentionally or recklessly obstruct access to such a place.

Deliberately, intentionally or recklessly disturb great crested newts.

Great crested newt and common toad (*Bufo bufo*) are Priority Species.

### 4 Reptiles

Slow-worm (*Anguis fragilis*), viviparous/common lizard (*Zootoca vivipara*), adder (*Vipera berus*) and grass snake (*Natrix natrix*) are protected under the Wildlife and Countryside Act 1981 (as amended) against intentional killing and injuring. These species are also Priority Species.

### 5 Birds

The bird breeding season generally lasts from March to early September for most species. All birds are protected under the Wildlife and Countryside Act (1981) (as amended) and the Countryside & Rights of Way (CRoW) Act 2000. This legislation makes it illegal, both intentionally and recklessly, to:

kill, injure or take any wild bird.

take, damage or destroy the nest of any wild bird while it is being built or in use.  
take or destroy the eggs of any wild bird.

Furthermore, birds listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended) are protected against intentional or reckless disturbance whilst nest building and when at or near a nest containing eggs or young. Dependent young of Schedule 1 species are also protected against disturbance.

In addition to this legal protection, the leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of the birds regularly found here and produced a list of birds of conservation concern. Of the 245 species assessed, 70 were placed on the Red List of high conservation concern, 103 on the Amber List of medium conservation concern and 72 on the Green List of low conservation concern:

Red list species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.

Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; and those with internationally important or localised populations.

## 6 Badgers

Badger (*Meles meles*) is a widespread and common species. However, they are legally protected under The Protection of Badgers Act 1992, due to animal welfare concerns. Under this legislation it is illegal to:

Wilfully kill, injure, take, or cruelly ill-treat a badger, or attempt to do so.

Intentionally or recklessly interfere with a sett by disturbing badgers whilst they are occupying a sett, damaging or destroying a sett, or obstructing access to it.

A badger sett is defined in the legislation as “any structure or place, which displays signs indicating current use by a badger”.

## 7 Bats

There are 18 species of bats found in the UK, 17 of which are known to breed here. The conservation status of these species is summarised in the table below:

Common name	Scientific name	IUCN Red List*	Priority Species
Greater horseshoe	<i>Rhinolophus ferrumequinum</i>	LC	Yes
Lesser horseshoe	<i>Rhinolophus hipposideros</i>	LC	Yes
Daubenton’s	<i>Myotis daubentonii</i>	LC	No
Brandt’s	<i>Myotis brandtii</i>	LC	No
Whiskered	<i>Myotis mystacinus</i>	LC	No
Natterer’s	<i>Myotis nattereri</i>	LC	No
Bechstein’s	<i>Myotis bechsteinii</i>	NT	Yes
Alcathoe bat	<i>Myotis alcathoe</i>	DD	No
Greater mouse-eared	<i>Myotis myotis</i>	LC	No
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	LC	No
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	LC	Yes
Nathusius’ pipistrelle	<i>Pipistrellus nathusii</i>	LC	No



Serotine	<i>Eptesicus serotinus</i>	LC	No
Noctule	<i>Nyctalus noctula</i>	LC	Yes
Leisler's	<i>Nyctalus leisleri</i>	LC	No
Barbastelle	<i>Barbastella barbastellus</i>	NT	Yes
Brown long-eared	<i>Plecotus auritus</i>	LC	Yes
Grey long-eared	<i>Plecotus austriacus</i>	LC	No

\*IUCN categories: LC Least Concern, NT Near Threatened, DD Data Deficient

All bat species are afforded full protection under UK legislation, including the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it illegal to:

Deliberately capture, injure or kill a bat.

Damage or destroy a bat roost; or intentionally or recklessly obstruct access to bat roosts.

Deliberately, intentionally or recklessly disturb a bat, including in particular any disturbance which is likely:

to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or

in the case of animals of a hibernating or migratory species, to hibernate or migrate; or

to affect significantly the local distribution or abundance of the species to which they belong.

A bat roost is defined in the legislation as "any structure or place which a bat uses for shelter or protection". Roosts are protected whether or not bats are present at the time.

## 8 Otter

Otters (*Lutra lutra*) are fully protected under UK legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CROW) Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it illegal to:

Deliberately capture, injure or kill an otter.

Damage or destroy any structure or place used for shelter or protection by an otter; or intentionally or recklessly obstruct access to such a place.

Deliberately, intentionally or recklessly disturb an otter whilst it is occupying a structure or place which it uses for shelter or protection.

Otter is a Priority Species.

## 9 Water vole

Water vole (*Arvicola amphibious*) are afforded full protection under the Wildlife and Countryside Act 1981 (as amended), which make it illegal to:

Kill, injure or take a water vole.

intentionally or recklessly destroy, damage or obstruct access to any structure or place that is used by a water vole for shelter or protection.

intentionally or recklessly disturb a water vole whilst it is in a place used for shelter or protection.

Water vole is a Priority Species.

## 10 Common/Hazel dormouse

The hazel dormouse (*Muscardinus avellanarius*) is fully protected under UK legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CROW) Act 2000 and

the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it illegal to:

Deliberately capture, injure or kill a dormouse.

Damage or destroy any structure or place used for shelter or protection by a dormouse; or intentionally or recklessly obstruct access to such a place.

Deliberately, intentionally or recklessly disturb a dormouse whilst it is occupying a structure or place which it uses for shelter or protection.

Hazel dormouse is a Priority Species.

## Appendix 3: Baseline Evaluation Criteria

## Baseline Evaluation criteria

Key evaluation categories are as follows:

International value (internationally designated sites, or sites meeting criteria for international designation. Sites supporting populations of internationally important species);

UK value (sites with UK importance);

National value (nationally designated sites (e.g. SSSIs) or sites meeting SSSI selection criteria. Sites containing viable areas of threatened Priority Habitat or supporting a viable population of Red Data Book species or supplying critical elements of their habitat requirements);

Regional value (sites exceeding county-level designations but not meeting SSSI criteria. Sites containing viable areas of threatened habitats on the Regional BAP, supporting viable populations of species that are nationally scarce or included in the regional BAP due to rarity);

County value (sites meeting criteria for county or metropolitan designations. Site containing a viable area of a threatened habitat identified on the county BAP or supporting viable populations of county or metropolitan rarities e.g. county BAP or county 'Red Data Book' species);

District value (undesignated sites or features that are considered to appreciably enrich the habitat resource within the context of the Borough or District);

Parish value (areas of habitat considered to appreciably enrich the habitat resource within the context of a parish or neighbourhood);

Sub-Parish (ecological resource not meeting any of the above criteria).

Additional criteria employed were from the following:

Schedules and Annexes of UK and European wildlife legislation (e.g. Wildlife and Countryside Act (1981) (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended));

International conventions on wildlife (e.g. Bern Convention, Bonn convention);

Habitats and species of Principal Importance.

Local Biodiversity Action Plans.

Taxi-specific conservation lists (e.g. Red Data Lists; Red/Amber Lists).

## Appendix 4: National Planning Policy

## National Planning Policy Framework (2021)

The National Planning Policy Framework (NPPF) includes the Government's policy on the protection of biodiversity through the planning system. The following policies are relevant to the Proposed Development:

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

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

175. 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.

180. 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<sup>1</sup> and a suitable compensation strategy exists; and

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<sup>1</sup> For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

- 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.

182. 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 sites.

## Appendix 5: Local Planning Policy



Relevant policies of the Plymouth Plan 2011-2031 and the Plymouth and South West Devon Joint Local Plan 2014-2034 (Adopted, March 2019).

Policy	Content relevant to Ecology and Nature Conservation
<b>The Plymouth Plan 2011-2031</b>	
<p>Policy GRO6 Delivering Plymouth's natural network</p>	<p>The City will ensure that the natural environment is fully considered and embedded in the delivery of the city's vision for growth. The Natural Network will consist of a functional network of green and blue spaces that support a high quality of life for communities as well as providing an attractive environment for investment, space for nature to thrive and increased resilience to the impacts of climate change. The Natural Network includes public open space, allotments, play areas, woodlands, trees, playing pitches, Local Green Spaces, statutory and non-statutory designated sites, Strategic Greenspace Areas, Undeveloped Coast, Strategic Landscape Areas, Protected Landscape Areas, marine areas. Plymouth's natural network will be delivered through the following measures:</p> <ol style="list-style-type: none"> <li>1. Developing a new model for managing natural spaces that enable communities to have more involvement and ownership of their local spaces, and deliver effective partnership working maximise the benefits it brings to health and well-being.</li> <li>2. Aiming to ensure that everyone in the city has good access to a high-quality natural space within a target distance of their home, in accordance with the following accessibility standards set out in Figure 3.2 of the Joint Local Plan.</li> <li>3. Ensuring our bathing water quality achieves 'Excellent' under the new more stringent EU standards and continues to provide a high quality cultural, wildlife and recreational resource for the city. This work will be delivered with the support of South West Water, the Environment Agency, the Marine Management Organisation and other partners.</li> <li>4. Sustainably managing the city's water environment by adopting a catchment-based approach to ensure reductions in flood risk and enhanced water quality, wildlife, amenity value and designated shellfish waters.</li> <li>5. Using planning powers to protect and enhance the network and support the achievement of the accessibility standards.</li> </ol>
<b>Policies of the Plymouth and South West Devon Joint Local Plan 2014-2034</b>	
<p>DEV26 - Protecting and enhancing biodiversity and geological conservation</p>	<p>Development should support the protection, conservation, enhancement and restoration of biodiversity and geodiversity across the Plan Area. Specific provisions are identified below:</p> <ol style="list-style-type: none"> <li>1. The highest level of protection will be given to European Sites. Development will not be permitted unless it will not adversely affect the integrity of a European site, either alone or in combination with other development. Proposals having a harmful impact on the integrity of European Sites that cannot be avoided or adequately mitigated will not be permitted other than in exceptional circumstances. These circumstances will only apply where: <ol style="list-style-type: none"> <li>i. There are no suitable alternatives.</li> <li>ii. There are Imperative Reasons of Overriding Public Interest.</li> <li>iii. Necessary compensatory provision can be secured to ensure that the overall coherence of the Natura 2000 network of European Sites is protected.</li> </ol> </li> <li>2. A high level of protection will be given to sites of national significance for</li> </ol>

Relevant policies of the Plymouth Plan 2011-2031 and the Plymouth and South West Devon Joint Local Plan 2014-2034 (Adopted, March 2019).

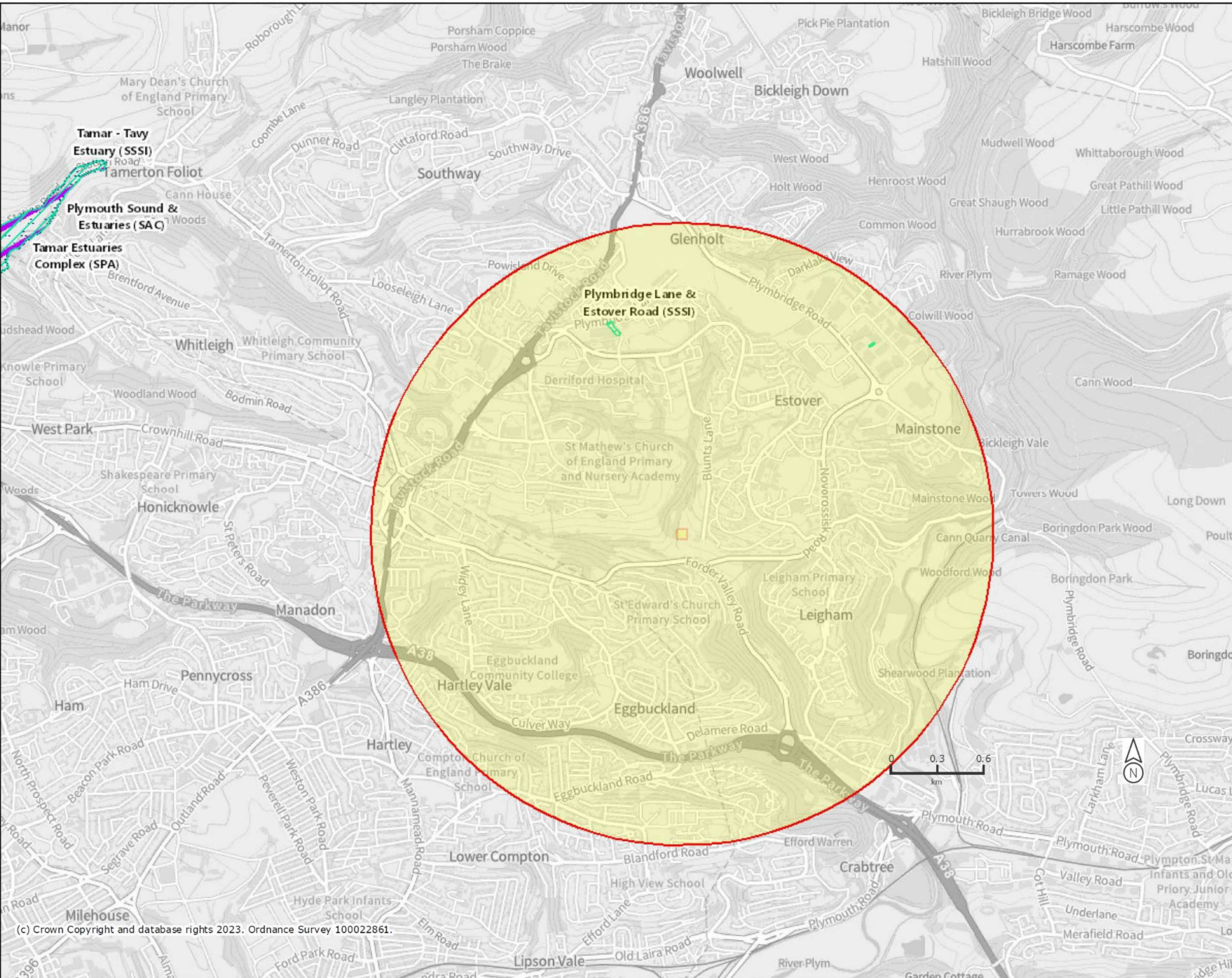
Policy	Content relevant to Ecology and Nature Conservation
	<p>nature conservation Development proposed on land within or outside such a site which would be likely to have a harmful impact on the site (either individually or in combination with other developments) will not be permitted unless the benefits of the development, at the site, clearly outweigh both the impacts on the notified special interest features of the site and any broader impacts on the national network of sites of national significance for nature conservation.</p> <p>3. Development likely to have a harmful impact on locally designated sites, their features or their function as part of the ecological network, will only be permitted where the need and benefits of the development clearly outweigh the loss and where the coherence of the local ecological network is maintained.</p> <p>4. Harmful impacts on European and UK protected species and Biodiversity Action Plan habitats and species must be avoided wherever possible, subject to the legal tests afforded to them where applicable, and unless the need for, or benefits of the development clearly outweigh the loss.</p> <p>5. Net gains in biodiversity will be sought from all major development proposals through the promotion, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of legally protected and priority species populations. Delivery of net gains in biodiversity should be designed to support the delivery of the identified biodiversity network that crosses the Plan Area and links the city of Plymouth to the countryside and coast, as well as the network within the city itself. The level of biodiversity net gain required will be proportionate to the type, scale and impact of development. Enhancements for wildlife within the built environment will be sought where appropriate from all scales of development.</p> <p>6. Development will provide for the long-term management of biodiversity features retained and enhanced within the site or for those features created off site to compensate for development impacts.</p>
DEV28 – Trees, woodlands and hedgerows	<p>Development that would result in the loss or deterioration of the quality of:</p> <ul style="list-style-type: none"> <li>Ancient woodland, aged or veteran trees or impact on their immediate surroundings;</li> <li>Other woodlands or high amenity trees including protected trees;</li> <li>Important hedgerows including Devon hedgebanks;</li> </ul> <p>will not be permitted unless the need for, and benefits of, the development in that location clearly outweigh the loss and this can be demonstrated.</p> <p>Development should be designed so as to avoid the loss or deterioration of woodlands, trees or hedgerows. If the loss of trees, woodlands or hedgerows, cannot be avoided, new native and locally appropriate trees and hedgerows will be secured as mitigation to ensure they contribute to a ‘net gain’. Mitigation should be delivered on site, but if this is not achievable, offsite compensation will be required to provide a net gain in canopy cover in line with local standards.</p>
SPT12 Strategic approach to	<p>The distinctive characteristics, special qualities and important features of the natural environment of the Plan Area will be protected, conserved and enhanced. This will be through a strategic approach which protects the hierarchy of international, national and locally designated sites, commensurate with their</p>

Relevant policies of the Plymouth Plan 2011-2031 and the Plymouth and South West Devon Joint Local Plan 2014-2034 (Adopted, March 2019).

Policy	Content relevant to Ecology and Nature Conservation
the natural environment	<p>status, and takes account of the natural infrastructure functions of different sites, habitats and features. Key principles include:</p> <ol style="list-style-type: none"> <li>1. Avoiding harmful impacts on existing features as a first principle, and where harmful impacts are unavoidable, to ensure that such impacts are adequately and proportionately mitigated or as a last resort fully compensated.</li> <li>2. Protecting sites of European significance for biodiversity and conservation. These include existing and potential Special Protection Areas, existing possible and candidate Special Areas of Conservation, existing and proposed Ramsar sites and sites identified, or required, as compensatory measures for harmful impacts on European sites.</li> <li>3. Protecting sites of national significance for biodiversity and conservation. These include Sites of Special Scientific Interest, National Nature Reserves, Ancient Woodlands and Marine Conservation Zones.</li> <li>4. Conserving and enhancing the landscape and scenic beauty of the South Devon and the Tamar Valley Areas of Outstanding Natural Beauty, and the adjacent Dartmoor National Park.</li> <li>5. Protecting and enhancing the distinctive landscapes of the Undeveloped Coast, particularly within the South Devon Heritage Coast, with support for improvements to public access to and enjoyment of the coast.</li> <li>6. Safeguarding the landscape setting of the Cornwall and West Devon Mining Landscape World Heritage Site.</li> <li>7. Supporting innovative and sustainable solutions within the North Devon Biosphere Transition Zone in accordance with the Biosphere Strategy for Sustainable Development.</li> <li>8. Conserving and enhancing a functional network across the Plan Area of greenspace and geodiversity sites that meets the needs of communities and wildlife.</li> <li>9. Improving links to and along regional and national walking and cycling routes, including the South West Coast Path national trail and the National Cycle Network.</li> <li>10. Protecting and extending the Public Rights of Way and bridleway network as an essential element of the enjoyment of the natural environment.</li> </ol>

# Appendix 6: Designated Sites of Nature Conservation Importance





### Legend

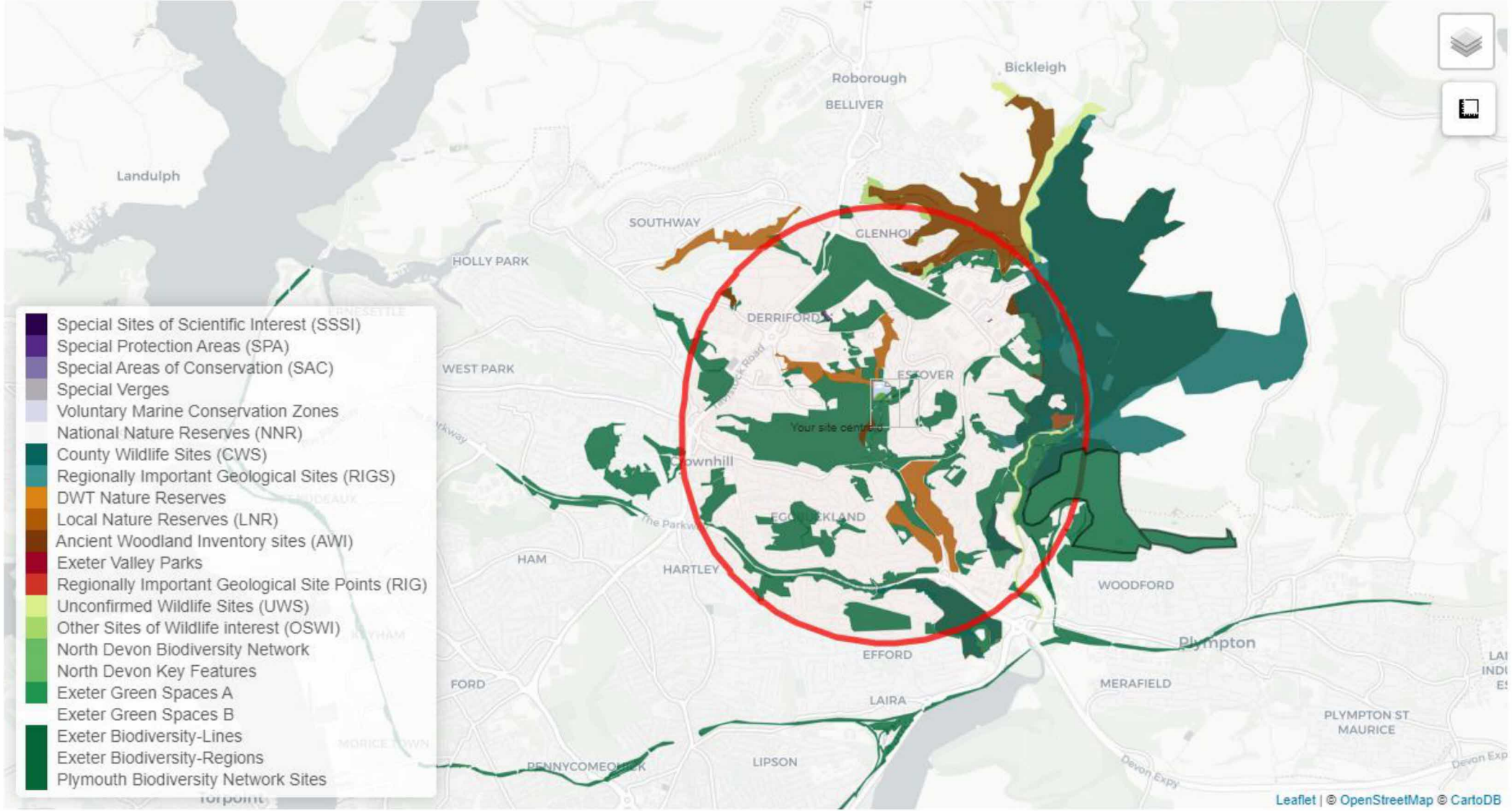
- National Nature Reserves (England)
- Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)

Projection = OSGB36  
 xmin = 243600  
 ymin = 55670  
 xmax = 256200  
 ymax = 61990

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# Map of statutory and non-statutory sites within 2 kilometres of SX50455872 (18/09/2018) Enq no.9-228



## Appendix 7: Biodiversity Net Gain Assessment

## Methodology

A Biodiversity Net Gain (BNG) assessment was undertaken using the Defra 'Biodiversity Metric 4.0' calculation tool, with reference to supporting documents (Natural England 2023a, 2023b and 2023c). A copy of the Metric calculator has been submitted separately for review.

The BNG assessment included calculations for pre-development (baseline) and post-intervention habitats within the site boundary.

### Pre-development (baseline) habitats

The on-site habitats were subject to habitat condition assessment (HCA) surveys and a desk study, undertaken by an experienced ecologist from EAD Ecology on 25 May 2023. The desk study comprised of a review of satellite imagery and Defra MAGIC datasets to assist with the assessment and also identify any habitat degradation post 30 January 2020. The HCA followed Defra Metric 4.0 habitat conditions criteria (Natural England 2023d); refer to Tables A7.1 and A7.2. Based on the habitats present, sufficient information could be gathered to fully assess all relevant habitat types and condition.

Table A7.1: Baseline Grassland (Modified Grassland) Condition (25/05/2023).

BNG Condition Criteria (Natural England 2023d) P= Pass/ F = Fail							Condition	Description / Comments
A	B	C	D	E	F	G		
F	P	P	P	F	P	P	Poor	Poor semi-improved grassland dominated by Yorkshire fog.

Table A7.2: Baseline Scrub Condition (25/05/2023).

Habitat Type	Condition	Condition assessment notes
Bramble scrub	N/A	Habitat condition assessment N/A

### Post-intervention habitats

Post-intervention habitat areas shown are based on the proposed plans (refer to Figure 2).

Determination of anticipated post-intervention habitat condition for on-site created habitats is based on the relevant habitat condition criteria in Defra Metric 4.0 (Natural England 2023d). Interventions proposed to achieve the conditions specified in the Metric are outlined in Table A7.3. It is considered in the professional opinion of EAD Ecology that the measures and targeted habitat condition are realistic and achievable.

Table A7.3: Green roof Management / Interventions to achieve BNG Metric Condition Target.

BNG Condition Criteria (Natural England 2023d) P= Pass/ F = Fail				Condition	Description / Comments
A	B	C	F		
P	F	P	P	Moderate	Plant with a variety native of grasses and flowers so that a single structural component does not account for more than 80% of the total habitat area.



					Ensure 70% of the roof area is soil and vegetation and that there is a minimum of 50% native and non-native wildflowers.
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### Strategic significance

The Strategic significance applied to each baseline and post-intervention habitat parcel have been assigned in accordance with the Metric guidance (Natural England 2023a and 2023b), with reference to site and habitat specific information and professional judgement. The site is part of a Plymouth Biodiversity Network Site and lies within a Local Nature Reserve (LNR), designated for its habitats, including grassland and scrub, both of which are present within the site. The pre-development habitats have therefore been assigned a Multiplier of 1.15, for habitats formally identified in local strategy. The proposed green roof (part of the habitat creation proposals) is considered to contribute to the Plymouth Biodiversity Network so the green roof has been assigned 'Location Ecologically Desirable' (Multiplier 1.1).

### Spatial Risk

All habitat creation will occur within the site therefore no spatial risk multiplier is applicable.

### Assumptions and limitations within the Metric

It is presumed that there will be an up to one-year delay in delivering the green roof, to allow time to sow the green roof at an optimum time of year.

An 'Area Check Error' is present within the Metric; the area created does not equal the area lost as the grassland beneath the cabin will be retained and there will be the addition of the green roof on the cabin roof.

It is assumed that no bramble scrub will be lost due to the proposals; bramble scrub was present along the fence line and it is assumed that the foundation pits will not be located in close proximity to the fence.

### Stacking

No stacking rules apply to the proposals.

### Results

The proposed development would result in the following changes in on site Habitat Units:

Table A7.4. Metric 4.0 On site BNG Summary

Scenario	Unit type	Units	Percentage
On site baseline	Habitat units	0.05	-
	Hedgerow units	N/A	N/A
	River Units	N/A	N/A
On-site post intervention (including habitat retention, creation and enhancement)	Habitat units	0.09	-
	Hedgerow units	-	-
	River Units	-	-
On-site net change (units and percentage)	Habitat units	0.04	83.32
	Hedgerow units	N/A	N/A
	River Units	N/A	N/A

### Trading rules

Where the above on site habitat delivery is applied, all 'Trading rule' requirements specified in the Metric 4.0 would be met.

### Conclusions

Through the proposed on-site habitat delivery, the development can demonstrate application of the Mitigation Hierarchy and deliver 83.32% Biodiversity Net Gain within the site, in excess of current national and local biodiversity planning policy requirements (NPPF; Paragraph 180) and the Plymouth and South West Devon Joint Local Plan 2013-2024.

### References

Natural England (2023a) Natural England Joint Publication JP039. The Biodiversity Metric 4.0 User Guide.

Natural England (2023b) Natural England Joint Publication JP039. The Biodiversity Metric 4.0 Technical Annex 2 – Technical Information.

Natural England (2023c) Natural England Joint Publication JP039. The Biodiversity Metric 4.0 Short Data Input Guide.

Natural England (2023d) Natural England Joint Publication JP039. The Biodiversity Metric 4.0 Technical Annex 1 – Condition Assessment Sheets and Methodology.



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