

Preliminary Ecological Appraisal
Dubbers Two Turbines Site, St. Austell, Cornwall
November 2025

A report by

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Report details

Site address:	Dubbers Restoration Site, St. Austell, Cornwall
Grid reference:	SW975562
Survey date:	11 th June 2025
Report date:	7 th November 2025
Report author:	Yolande Knight PhD, MRSB
Report reviewer:	Colin Hicks BSc (Hons), MCIEEM
Report reference:	WOR 5125

Declaration of compliance

BS 42020:2013

This study has been undertaken in accordance with British Standard 42020:2013 Biodiversity, Code of practice for planning and development.

Code of Professional Conduct

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

Validity of survey data and report

The findings of this report are valid for 12 months from the date of survey. If work has not commenced within this period, an updated survey by a suitably qualified ecologist will be required.

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1. Introduction

Western Ecology has been commissioned to complete a Preliminary Ecological Appraisal of land at Dubbers Restoration Site, St. Austell, Cornwall. Two turbines and associated infrastructure is proposed.

1.1. Survey aims

The survey and this report identify features of conservation importance that could constitute a constraint to the works at this site. Where appropriate, recommendations for impact avoidance, mitigation and post-works enhancement are made to ensure compliance with wildlife legislation and relevant planning policy.

This survey has been prepared in accordance with the 'Guidelines for Preliminary Ecological Appraisal' produced by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017).

1.2. Site location

The site lies within the southern periphery of the Lower Longstones area of the operational clay works associated with the Little Johns Pit, located approximately 1.25km to the east of the village of Nanpean, and approximately 5km to the north-west of St Austell in mid-Cornwall.

2. Survey methodology

2.1. Desktop survey

The desktop survey collated existing biological records for the site and adjacent areas, and identified any nature conservation sites that may be affected by the proposed works. This comprises an important part of the assessment process, providing information on ecological issues that may not be apparent during the site survey.

Consultees for the data search included:

- The Environmental Records Centre for Cornwall & the Isle of Scilly provided biological records for protected/notable species and non-statutory sites within 1 km of the site.
- Natural England - GIS dataset of SSSI Impact Risk Zones, statutory nature conservation sites.
- Multi-Agency Geographic Information for the Countryside map (MAGIC Map)
- Cornwall County Council- Interactive Map

Species data was examined for protected and notable species records. An assessment was then made, based on known habitat preferences, as to whether these species might be present within the site and how they might be affected by the proposed works.

The location of nature conservation sites was examined to determine their ecological and landscape relationships with the proposed works. An assessment was then made of how the sites may be affected by the proposed works, taking into account these relationships, and the species and/or habitat types for which the nature conservation site was chosen.

SSSI Impact Risk Zones are areas where the proposed planned change to the environment could either create significant damage to a local SSSI, or might require additional planning and consultation in order to avoid impacting such sites. The assessments are made according to the particular sensitivities of the features for which the SSSI is notified, and specifies the types of works that have the potential for adverse impacts.

In compliance with the terms and conditions relating to its commercial use, the full desk study data is not provided within this report.

2.2. Field survey

A Preliminary Ecological Appraisal of the site was completed by Yolande Knight PhD, MRSB on 11th June 2025 in suitable weather conditions.

The existing habitats were classified using the UKHabs methodology developed by the Joint Nature Conservation Committee (JNCC, 2010) and modified by the Institute of Environmental Assessment (IEA, 1995). The main plant species were recorded, and broad habitat types mapped according to the UK Habitats Classification v2.0 definitions (UKHab Ltd., 2023), using quadrats where appropriate. Plant species were identified according to Stace (1997).

2.3. Method for valuation of habitats

The ecological value of habitats present is provided in line with Guidelines for Ecological Impact Assessment (CIEEM, 2018), and those which are important in terms of legislation or policy are identified. Table 1 summarises this information and details the extent of each habitat recorded here.

The nature conservation value, or potential value, of the habitat is determined within the following geographic context:

- International importance (e.g. internationally designated sites such as Special Areas of Conservation, Special Protection Areas, Ramsar sites);
- National importance (e.g. nationally designated sites such as Sites of Special Scientific Interest or species populations of importance in the UK context);
- County importance (e.g. SNCI, habitats and species populations of importance in the context of Cornwall);
- Local importance (e.g. important ecological features such as old hedges, woodlands, ponds);
- Site importance (e.g. habitat mosaic of grassland and scrub which may support a diversity of common wildlife species);
- Negligible importance. Usually applied to areas such as built development or areas of intensive agricultural land.

The examples are not exclusive and are subject to further professional ecological judgment.

2.4. Survey constraints

The majority of the site was readily accessible, with some areas of dense scrub and adjacent grassland having limited access due to high fences, steep banks and dense vegetation. Although some plant species would have not been visible during the survey period, within such a simple site comprising common and widespread habitat types, the timing of this survey is not a significant constraint to a robust initial site assessment.

It should also be noted that habitats, and the species they may support, change over time due to natural processes and because of human influence. In line with current guidelines, the survey on which this report is based is valid for one year, after which time it will need updating. This report is valid until 11th June 2026.

2.5. Study area

The study area for the desktop survey is within 1km for Statutory Nature Conservation Sites and Non-statutory Nature Conservation Sites. The study area for the Preliminary Ecological Appraisal was the footprint of the proposed development, hereafter referred to as the 'assessment site', and its immediate boundaries. This is the area included within the line described as "Survey area" within the legend of Map 1.

3. Results

3.1. Site description

The majority of the Site comprises a mosaic of habitats relating to habitat restoration work within the wider site area. Areas of lush-growth modified grassland and dense ruderal/ephemeral swards vegetate the lower flat areas, criss-crossed with tracks, banks and dry ditches. High steep banks to the north, east and south are vegetated with varied density scrub with dominant willow and frequent rhododendron. Atop the eastern bank are sections of modified grass and ruderal/ephemeral mosaic interspersed with sections of unvegetated base substrate (quarry spoil), some with manure fertiliser overlain. An area towards the centre is in operational use for reworking of rock.

3.2. Habitats

Habitats have been classified using the UK Habitats Classification v2 definitions, and are described below and detailed in Map 1. Habitats which are important in terms of legislation or policy are identified in Table 1. Plant species that characterise each of these habitats are identified, although this is for descriptive purposes, and comprehensive inventory is not provided. Images of habitat types are provided in Appendix 1.

Table 1. Baseline habitats

Baseline habitat	Description	Ecological value
g4- Grassland: modified grassland ¹	Several large sections of the Site comprise dense swards of modified grassland, following restoration seeding, with the species mix including abundant Yorkshire fog and rough meadow-grass, with frequent crested dog's-tail and perennial rye. Forbs were extremely scarce.	Site
Secondary code 201: young trees- planted	Scattered saplings, protected by guards, are planted within areas of the modified grassland, including hawthorn, hazel and dogwood.	Site
Secondary code 81: ruderal or ephemeral	Areas of dense common nettle, colt's-foot and charlock are present throughout the grassland habitat, with more mixed ruderal/ephemeral habitat, including common ragwort, oxeye daisy, marsh thistle, charlock and nettle present towards the eastern-most extent of the Site.	Site
g3c- Grassland: other neutral grassland	A narrow length of grassland adjacent to the eastern scrub bank has a richer mix of forbs present than the flat areas of re-seeded sward. The grass mix is as above, but with additional forbs common to sparsely vegetated ground including occasional groundsel, scentless mayweed, bird's-foot trefoil, sheep's sorrel and bristly oxtongue. Scattered areas of common	Site

¹ See Appendix 2 for modified grassland quadrat data.

	nettle, reed canary-grass and bramble are also present.	
h3h- Heathland and scrub: mixed scrub	Dense areas of scrub planting are present on the eastern bank and within an area to the north: species present comprise abundant willow, with frequent rhododendron, occasional European gorse and buddleia and rare hazel. Ground flora include common nettle, foxglove and a continuation of grassland species, with additional bird's-foot trefoil.	
u1b6 – vacant/derelict land quarry	An area to the centre of the Site comprises an area where quarry spoil is stored. The majority of the area is unvegetated, but sparse forbs and common grasses are occasionally present on the less recently managed slopes, with species present including common cat's-ear, ribwort plantain, annual meadow-grass and Yorkshire fog.	Negligible
u1c- Urban: artificial unvegetated – unsealed surface	Sections of unvegetated base substrate (quarry spoil), some with manure fertiliser overlain.	Negligible
(with 81 – ruderal/ephemeral)	Gravel tracks run through the Site, sparsely vegetated with a mix of low-growing forbs and grasses, such as sheep's sorrel, heath rush, scarlet pimpernel, Yorkshire fog and rough meadow-grass.	Negligible

3.3. Desktop survey

The biological records search found a number of notable species within the geographical parameters of the search.

Statutory nature conservation sites

There are no SNCS within 1km of the Site.

Non-statutory nature conservation sites (NNCS)

There is one NNCS located within 1km of the Site: Longstone Downs County Wildlife Site (CWS) is situated ~600m to the south-east. This is an area of lowland heath situated within an area of extensive china clay works.

SSSI Impact Risk Zones

The Site is not within an area identified as a SSSI Impact Risk Zone for the type of development proposed.

Biological records

A number of records for protected and notable species are present within 1km (Table 2).

Table 2. Biological records within 1km.

Species Group	Taxonomic name	Common name	UK protection	Status	Count
Amphibian	<i>Bufo bufo</i>	Common Toad	WCA5 ²	NERC S.41 ³ ; UKBAP ⁴	1
	<i>Rana temporaria</i>	Common frog	WCA5		1
Bird	<i>Cuculus canorus</i>	Cuckoo	NERC S.41	Red; UKBAP	1
	<i>Carduelis carduelis</i>	Goldfinch			1
	<i>Larus fuscus</i>	Lesser Black-backed Gull		Amber	1
	<i>Pica pica</i>	Magpie			1

² Wildlife and Countryside Act (1981) Schedule 5: Animals which are protected

³ Species listed under Section 41 of the Natural Environment and Rural Communities Act (2006). These are the species found in England which have been identified as requiring action under the UK BAP. All local authorities and other public authorities in England and Wales have a duty to promote and enhance biodiversity in all of their functions.

⁴ UKBAP priority species identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan.

	<i>Tadorna tadorna</i>	Sand Martin		Cornwall RDB ⁵	2
	<i>Riparia riparia</i>	Skylark	NERC 41		3
	<i>Hirundo rustica</i>	Swallow			1
Invertebrates	<i>Ceramica pisi</i>	Broom Moth	NERC 41	UKBAP	1
	<i>Erynnis tages</i>	Dingy Skipper	NERC 41	UKBAP	3
	<i>Ischnura pumilio</i>	Scarce Blue-tailed Damselfly			1
	<i>Coenonympha pamphilus</i>	Small Heath	NERC 41	UKBAP	1
Liverwort	<i>Marsupella profunda</i>	Western Rustwort	WCA8 ⁶	UKBAP	5
Mammals - Terrestrial (non-bats)	<i>Meles meles</i>	Badger	Protection of Badgers Act 1992	Cornwall RDB	1
	<i>Micomys minutus</i>	Harvest Mouse	NERC 41	UKBAP; Cornwall RDB	1
	<i>Erinaceus europaeus</i>	West European Hedgehog	NERC 41	UKBAP; Cornwall RDB	1
Mammals - Bats	<i>Plecotus auritus</i>	Brown Long-eared Bat	NERC 41, WCA5	UKBAP	1
	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	WCA5		2
Plant	<i>Radiola linoides</i>	Allseed		Cornwall RDB	3
	<i>Centunculus minimus</i>	Chaffweed		Cornwall RDB	2
	<i>Glebionis segetum</i>	Corn Marigold		Cornwall RDB	2
	<i>Spergula arvensis</i>	Corn Spurrey		Cornwall RDB	1
	<i>Impatiens glandulifera</i>	Himalayan Balsam	WCA9		1
	<i>Cotoneaster simonsii</i>	Himalayan Cotoneaster	WCA9		1
	<i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia	WCA9		4
	<i>Allium triquetrum</i>	Three-cornered Garlic	WCA9		1
	<i>Rhododendron ponticum</i>		WCA9		3
	<i>Cotoneaster horizontalis</i>	Wall Cotoneaster	WCA9		2

⁵ Cornwall Red Data Book (2009)

⁶ Wildlife and Countryside Act (1981) Schedule 8: Plant species protected under Section 13, protected from picking and sale of plants or part of plants listed.

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Legend

— RLB

UK Habs polygons

u1c - artificial unvegetated unsealed surface

u1b6 - vacant/derelict land

g3c - other neutral grassland

g4 - modified grassland

g4 (81) - modified grassland
(with ruderals/ephemerals)

h3h - mixed scrub

Title: Map 1. Baseline habitats

Project: Dubbers Turbines, Dubbers
Restoration Area, Cornwall

Checked by: CDH Version: 01
Date: 30/10/2025



0 40 80 120 160 200 m



3.4. Potential for species of nature conservation importance

Habitats have been assessed from the results of the field survey for their potential to support the following protected species. Where there is no potential for a species or species group to be present within the site, they may be scoped out at this stage.

Table 3. Potential for species of nature conservation importance

Species	Assessment	Potential for presence
Amphibians (common and widespread)	The mosaic of habitats provides terrestrial opportunities for common amphibians such as common frog and palmate newt, while the surrounding habitats also provide foraging resources and hibernacula. It is likely that a variety of common amphibians are present within the Site, particularly in association with ditches and grassland/scrub edges.	Moderate
Badgers	The local area is likely to support badger populations. No badger setts or other field signs (such as latrines, snuffle holes or footprints) were observed in the Site. Depending on wider fencing, although the mosaic of habitats will likely provide some foraging opportunities, there may be limited access to the Site.	Limited (depending on wider fencing)
Bats (roosting)	There is no potential roosting habitat associated with the Site.	Negligible
Bats (foraging and commuting)	The grassland and ruderal habitat is likely to provide only limited seasonal foraging opportunities, while the scrub habitat provides potential for foraging and commuting features which connect to off-site habitat in the immediate landscape. Given landscape context, there is potential for a variety of bat species (including light-averse species) to be active within and around the Site.	Moderate
Birds (common and widespread)	Scrub and grassland habitats provide suitable nesting and breeding habitat for a variety of species, including notable species which are known to be active here. There is potential for birds to be active across the Site during winter and passage periods.	Moderate
Common Dormouse	Suitable habitat is limited to species-poor mixed scrub with no hazel present. This is very isolated from other suitable habitat in the local area, while also lacking a good diversity of woody fruiting shrubs. It is considered unlikely that dormice are active here, and they do not need to be considered further.	Negligible
Hedgehog	Grassland and scrub habitats provide foraging, dispersal and hibernation opportunities.	Moderate
Reptiles	The majority newly seeded/lush grassland habitat provides negligible potential for foraging or hibernating reptiles. The grassland edge habitats and scrub habitat provide opportunities for foraging, dispersal and hibernation for reptile species such as slow worm, common lizard, grass snake and adder.	Potentially present associated with scrub and grassland edge habitats
Otter	No suitable watercourses are associated with this site. This species does not need to be considered further.	Negligible
Water Vole	No suitable watercourses are associated with this site. This species does not need to be considered further.	Negligible
Notable invertebrates	Habitats at this Site are likely to support common and widespread invertebrates, although priority invertebrate habitats such as flushes, suitable brown-field land, and soft rock cliffs are absent from the Site. These species do not need to be considered further.	Negligible

Notable plants	The nationally rare liverwort Western Rustwort is present within the wider area, however no suitable habitat (such as bare granite faces and exposed china clay spoil) is associated with the survey Site.	Negligible
Invasive non-native plants	Rhododendron <i>R. ponticum</i> is present within scrub habitats within the Site.	Present

References

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Stace, C., 1997. *New Flora of the British Isles*. 2nd edition. Cambridge University Press, Cambridge.

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Appendix 1: Habitat images



Grassland habitat, looking south.



Mixed scrub, eastern bank.



Operational quarry area and adjacent spoil set for restorative seeding.



Ruderal/ephemeral habitat at eastern extent.

Appendix 2: Quadrat data

Site Dubbers Two Turbines					Date: 11/06/2025 Surveyors: YEK					Conditions: 100% cloud, 14°C, F4 ESE				
Quadrat no. and sp. count	Perennial rye	Timothy	Cock's-foot	Yorkshire fog	Crested dog's-tail	Rough meadow-grass	White clover	Greater plantain	Dandelion	Broadleaved dock	Chickweed	Creeping bent	<p>Use W3W or turn on GPS on phone camera for quadrat photos.</p> <p>UK Habs v2 criteria: Sp. Poor (<9 sp/m²), dom by a few fast-growing grasses on fertile/neutral soil. Abundance of P rye, White Clover. Other forbs <u>associated</u> with high nutrient levels.</p> <p>Other comments: dense overseeded <u>sward</u>. Very few forbs beyond ruderals. Tracks/bank sides have acidic grassland species such as sheep's sorrel, heath rush, cat's ear.</p>	
A1: 2				D		O							50.369452, -4.8496485	
A2: 4		O		F		F							50.369904, -4.8484254 Other sp. Present: <u>charlock O.</u>	
A3: 2				D		F							50.369609, -4.8493803	
A4: 3				F	O	F							50.370472, -4.8482752 Other sp. Present: common nettle R, broad-leaved dock O	
A5: 3				F	O	F							50.370875, -4.8487473 Other sp. Present: <u>pendulous sedge O</u>	
A6: 4		R		A	O	F							50.371320, -4.8490369	
A7: 3	A					F	O						50.371224, -4.8491442	
A8: 2				A		A							50.370916, -4.8496485	
A9: 3				O	O	A							50.370602, -4.8497665	
A10: 4	O			A	O	F							50.369230, -4.8483503	

Appendix 3: Legislation and Policy used to assess habitats and species

European Habitats and Species Directive (CEC, 1992)

The main aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those habitats and species of European importance.

European Red Data lists (IUCN, 2000)

International Union for Conservation of Nature (IUCN) and the European Commission have been working together on an initiative to assess around 6,000 European species according to IUCN regional Red Listing Guidelines. Through this process they have produced a European Red List identifying those species which are threatened with extinction at the European level so that appropriate conservation action can be taken to improve their status.

European Council Birds Directive (CEC, 1979)

The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. An important part of this Directive is the identification and classification of Special Protected Areas (SPAs) to protect vulnerable bird species listed in Annex 1 of the Directive and regularly occurring migrating species.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

This Act is the primary legislation that protects animals, plants and certain habitats in the UK.

The Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation of Habitats and Species Regulations 2010, and transpose Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (“the Habitats Directive”) and elements of Directive 2009/147/EC on the conservation of wild birds (“the Birds Directive”) in England, Wales, and to limited extent, Scotland and Northern Ireland.

The objectives of the Habitats Directive are to protect biodiversity through the conservation of natural habitats and species of wild fauna and flora. The Directive lays down rules for the protection, management and exploitation of such habitats and species.

The Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species. These sites form a network termed Natura 2000 and include Special Areas of Conservation and Special Protection Areas.

Protection of Badgers Act 1992

The Protection of Badgers Act 1992 consolidated and improved previous legislation. Under the Act it is an offence to kill, injure or take a Badger, or to damage or interfere with a sett used by a Badger unless a licence is obtained from a statutory authority.

[The Hedgerow Regulations 1997](#)

The Hedgerows Regulations 1997 protect certain hedgerows from being removed (uprooted or destroyed) if they meet certain criteria.

[The Countryside and Rights of Way \(CROW\) Act 2000](#)

This Act increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation.

[Circular 06/2005 Biodiversity and geological conservation – statutory obligations and their impact within the planning system](#)

This circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements the national planning policy in the National Planning Policy Framework and the Planning Practice Guidance.

[Natural Environment and Rural Communities Act 2006](#)

The Act made amendments to the both the Wildlife and Countryside Act 1981 and the Countryside and Rights of Way (CROW) Act 2000. For example, it extended the CROW biodiversity duty to public bodies and statutory undertakers.

[UK Post-2010 Biodiversity Framework, 2012](#)

The 'UK Post-2010 Biodiversity Framework', published in July 2012, succeeds the UK BAP and 'Conserving Biodiversity – the UK Approach', and is the result of a change in strategic thinking.

[National Planning Policy Framework, 2023](#)

The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied. It contains a number of policies relating to ecology including "minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures".

[The natural choice: securing the value of nature \(2011\) \(Natural Environment White Paper\)](#)

This White Paper outlines the Government's vision for the future of landscape and ecosystem services.

[Biodiversity 2020](#)

This is a national strategy for England's wildlife and ecosystem services based on the White Paper.