## PRELIMINARY ECOLOGICAL ASSESSMENT

# SOLAR ARRAY, NORMANDY, ISLES OF SCILLY



Client: Council of the Isles of Scilly Our reference: 24-3-3 Planning reference: Report produced in advance of submission Report date: 19<sup>th</sup> March 2024 Revision: -Author: James Faulconbridge BSc (Hons), MRes, MCIEEM Contact: ios.ecology@gmail.com

# **Executive Summary**

#### **Overview**

The proposed Normandy Solar site was subject to a Preliminary Ecological Assessment (PEA) in March 2024.

This report outlines the results of the PEA as well as recommendations and proposed mitigation measures arising from the ecological baseline.

#### Proposals

The proposals relate to the installation of a ground-mounted solar array with associated ground anchors / concrete pads; support structures; cabling routes and access requirements.

#### **Ecological Assessment**

The existing site is an area of rough grassland located to the south-west of the existing Normandy Swimming Pool.

Proposals would result in the following impacts:

- De minimis removal of existing grassland sward to install ground anchors/concrete pads to support the panels;
- Short-term disturbance of the ground for trenching of cables no long-term impacts in this location;
- Long-term alteration in sward characteristics below the panels through shading;
- Likely cutting back of overhanging windbreak hedge to ensure effective generation;
- Potential impact of short-term disturbance or damage to nesting birds in the absence of appropriate working methodology no long-term impact on these species;
- Risk of killing/injuring small mammals during initial site clearance, in the absence of an appropriate working methodology no long-term impact to these species;
- No impacts identified to bats or other protected species.

#### Recommendations

Recommendations provided in this PEA report will ensure that impacts to protected species are avoided and ecological impacts mitigated or compensated where appropriate. These include:

- Measures to protect nesting birds including timing of works;
- Enhancement of the existing sward through cutting/over-sowing followed by long-term management to enhance the sward;
- Installation of solitary bee and hedgehog boxes within the final development;
- Measures to control or minimise the risk of non-native invasive species spreading within or outside of the site.

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# 1. Introduction

#### **1.1. Project Overview**

The site comprises an area of rough grassland within the grounds of Normandy Swimming Pool on St Mary's, Isles of Scilly

The proposals relate to the installation of a ground-mounted solar array with associated ground anchors / concrete pads; support structures and cabling route.



**Map 01** – Site location indicated by the red circle. Reproduced in accordance with Google's Fair Use Policy.

## 2. Site Location and Description

#### 2.1. Site Location

The Site comprises a rough grassland field to the immediate south-west of the Normandy Swimming Pool on Carn Friars Lane in the north-east of St Mary's, Isles of Scilly. The National Grid Reference for the centre of the site is SV 92720 11168 (see Map 01).

#### 2.2. Site Description

The Normandy Swimming Pool site is approximately 0.14 hectares (ha) in size – the area to be impacted by the proposed solar array is 0.04ha. These are illustrated with the blueline and redline boundaries respectively in Map 02.

The broader site contains the swimming pool enclosure; a single-storey reception building; access infrastructure; and an area of rough grassland to the south-west. There are evergreen windbreak hedges on the south-eastern boundary as well as a portion of the north-eastern boundary. Scattered shrubs exist along the south-western boundary.

The footprint of the proposed solar array is entirely within the rough grassland to the south-west of the swimming pool reception.

#### 2.3. Local Landscape Setting

The site is situated to the north-east of St Mary's; the largest inhabited island on the Isles of Scilly.

The location is within one of the more intensively farmed areas of land within the islands – small arable and flower-growing fields delimited by evergreen windbreak hedgerows dominate the immediate environs. There are scattered farmhouses and other dwellings within the vicinity of the site.

Situated close by to the east is the coastline of St Mary's with more semi-natural habitats including heathland, coastal grassland and rocky foreshores.



**Map 02** – Showing the landscape and habitats immediately surrounding the site. The blueline shows site ownership; the redline shows the area to be impacted by the proposed solar array. Reproduced in accordance with Google's Fair Use Policy.

#### 2.4. Relevant Designations

The Site itself is not subject to any statutory or non-statutory designations of relevance to the consideration of ecological value or impacts.

There are four statutory designated sites of conservation importance situated within a 1km radius of the site. Details of these designations are provided below:

- Isles of Scilly SAC Complex Encompassing the coastline around St Mary's and situated 350m to the east-north-east at its closest point, the SAC is designated for its nationally important numbers of Grey Seal and the nationally rare Shore Dock. Annex 1 habitats that are the primary reason for site selection include mudflats; inter-tidal sandflats; reefs and sub-tidal sandbanks.
- **Isles of Scilly SPA Complex** Encompassing the coastline around St Mary's and situated 330m to the east-north-east at its closest point, the SPA designated for its internationally important seabird assemblage of 13 species including internationally important numbers of lesser black-backed gull and nationally important numbers of European storm petrel and European shag.
- **Higher Moors and Porth Hellick Pool SSSI** Situated 340m south-west of the proposed development lies Higher Moors SSSI a topogenous mire designated for several rare and notable plant species including bog pimpernel, star sedge and marsh St John's-wort.

• **Watermill Cove SSSI** – Situated 930m to the north, Watermill Cover is designated for predominantly geological rather than ecological interest - its cliff exposures of Quaternary sediments, that show the sequence of changes in the climate and environment during the Quarternary period.

#### 2.5. Planning Context

2.5.1. National Planning Context

The **National Planning Policy Framework (NPPF)**<sup>1</sup> sets out the Government's policies on conserving and enhancing habitats and biodiversity through the planning system in paragraphs 174 to 182. Whilst these policies are primarily expected to be incorporated into development planning documents at regional and local scales, they are also of material consideration for individual planning applications.

#### Paragraph 174 states that:

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.'

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.

<sup>&</sup>lt;sup>1</sup> National Planning Policy Framework (Crown Copyright, 2023)

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

In addition to the NPPF, the **Office of the Deputy Prime Minister (ODPM) circular 06/0511**<sup>2</sup> provides guidance on the application of law relating to planning and nature conservation. Paragraph 98 states "the presence of a protected species is a material consideration when a planning authority is considering a development proposal, that if carried out, would be likely to result in harm to the species or its habitat." Whilst Paragraph 99 states "it is essential that the presence or otherwise of a protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted."

2.5.2. Local Planning Context

The following policies are most relevant to this assessment:

- **Core Policy 1** Environmental Protection;
- **Policy OE2** Biodiversity and Geodiversity.

The following planning guidance documents are also of relevance:

• The Isles of Scilly Local Development Framework Supplementary Planning Document: Biodiversity and Geological Conservation<sup>3</sup>.

<sup>&</sup>lt;sup>2</sup> Office of the Deputy Prime Minister. (2005). Biodiversity and Geological Conservation – Statutory

Obligations and their Impact within the Planning System. ODPM Circular 06/2005

<sup>&</sup>lt;sup>3</sup> https://www.scilly.gov.uk/sites/default/files/IslesofScillyBiodiversity&GeodiversitySPD.pdf

## 3. Survey Methodology

#### 3.1. Desktop Survey

A full desktop study was undertaken for the presence of bats based on the list of roosts and other records held by the Isles of Scilly Bat Group.

The desk study included accessing the Multi-Agency Geographic Information for the Countryside (MAGIC)<sup>4</sup> database in order to establish the presence of statutory designated sites, including all internationally and nationally designated sites such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), RAMSAR sites and Sites of Special Scientific Interest (SSSIs) within 1km of the site.

Other resources used include aerial photography to identify the presence of habitats in close proximity to the site. This assists in the assessment of the potential of the site and its surrounding habitat to support protected species.

A full background data search from Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS) was not considered proportionate to the small scale and low potential impacts of the proposed development. St Mary's does not support many of the terrestrial protected species found in mainland UK for which a data search would ordinarily be vital, including great crested newts; badgers; reptiles; dormouse; white-clawed crayfish; otter or watervole.

#### 3.2. Vegetation and Habitat Assessment

An assessment was made of all areas of vegetation based on the standardised Phase 1 survey methodology<sup>5</sup>. This involved a walkover survey to identify broad vegetation types, which were then classified against Phase 1 habitat types, where appropriate.

A list of characteristic plant species for each vegetation type was compiled and any invasive species encountered as an incidental result of the survey are noted.

#### 3.3. Bats

The site does not include any features with potential to support roosting bats which might be either directly or indirectly impacted by the proposals. A full PRA methodology was not therefore employed as this was scoped out.

An assessment of the potential use of the site by foraging and commuting bats was made based on the suitability of habitat present and the distribution of linear vegetated features within the site and the immediate site environs.

<sup>&</sup>lt;sup>4</sup> http://defra.magic.gov.uk

<sup>&</sup>lt;sup>5</sup> JNCC (2010). Handbook for Phase 1 Habitat Survey: A technique for environmental audit – Field manual

#### 3.4. Birds

The assessment of breeding and wintering birds on the site was based on the suitability of habitat present, evidence of nesting such as old or currently active nests and the presence of bird species that may potentially nest within the available habitat.

#### 3.5. Other Protected Species

An assessment of potential and suitability for other protected species was made based on the habitats present; the local status of these species; and the background records.

No further protected species survey methodologies were required to support a comprehensive Ecological Assessment at this site.

#### **3.6.** Surveyor Competence

The PEA survey was undertaken by James Faulconbridge MRes MCIEEM trading as IOS Ecology. James is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM); he is a Licensed Bat Worker (Class Licence Level 2) and has over 15 years' experience undertaking a range of ecological surveys and assessing the factors that affect ecology in relation to construction and the built environment.

#### 3.7. Survey Dates

The PEA survey was undertaken on 14<sup>th</sup> March 2024.

#### **3.8. Zone of Influence**

The Zone of Influence (ZOI) is the area within which the ecological impacts arising from a proposed development are likely to be significant. Due to the nature of the proposed development the ZOI is identified as the site and the habitats which immediately bound it.

The sensitivity and value of offsite statutory and non-statutory sites mean that the potential for impacts arising from the proposed development should be considered within a wider ZOI. Therefore, scoping for direct and indirect impacts to designated sites is conducted within a ZOI of 1km of the Survey Site.

#### 3.9. Assessment of Ecological Value

The ecological values provided within this report are based around both the professional judgement of the author and current published relevant guidance, including "Guidelines for Ecological Impact Assessment in the United Kingdom."<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> CIEEM (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester.

### 4. Results

#### 4.1. Habitats

The habitats present onsite are illustrated in Map 03 and described below.

Other habitats which would not be impacted either directly or indirectly are not mapped or assessed further for clarity and brevity.



**Map 03** – Showing the broad habitats identified within the site. Reproduced in accordance with Google's Fair Use Policy.

#### 4.1.1. Semi-improved Grassland

The site of the proposed solar array is entirely covered by a tussocky, undermanaged grassland. The sward is grass-dominated but with a high herbaceous content – many of these are larger perennials as well as invasive species as listed below.

Grass species include locally dominant red fescue (*Festuca rubra*), cock's foot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*) along with a range of typical grassland herbaceous species including dandelion (*Taraxacum officinale agg.*), ribwort plantain (*Plantago lanceolata*), creeping buttercup (*Ranunculus repens*), sticky mouse-ear (*Cerastium glomeratum*) and common vetch (*Vicia sativa*).

There are abundant larger ruderal/herbaceous species within the sward also including wild radish (*Raphanus raphanistrum*), fennel (*Foeniculum vulgare*),

broadleaf dock (*Rumex obtusifolium*), nipplewort (*Lapsana communis*) and common nettle (*Urtica dioica*). Bracken (*Pteridium aquilifolium*) is present towards the south-western boundary of the habitat and bramble (*Rubus fruticosus agg.*) is occasional within the sward.

A range of invasive or non-native species – ubiquitous across Scilly – were also recorded within the sward including three-cornered leek (*Allium triquetrum*), Spanish bluebell (*Hyacinthoides hispanica*), daffodil (*Narcissus sp.*), alexanders (*Allium triquetrum*) Bermuda buttercup (*Oxalis pes-caprae*), nasturtium (*Tropaeolum majus*) and montbretia (*Crocosmia × crocosmiiflora*).

4.1.2. Introduced Shrubs

There is an evergreen windbreak hedge on the south-eastern boundary of the site – this is dominated by karo (*Pittosporum crassifolium*) but there are individual escallonia (*Escallonia macrantha*) shrubs within the stand. Typical shade-tolerant species are found below including bramble, common nettle, cleavers (*Galium aparine*) and bracken.

Individual karo seedlings are beginning to germinate in the grassland sward in closest proximity to the windbreak hedge.



**Photo 01** – Showing a view of the site looking south-west towards the arable field beyond the site boundary.



**Photo 02** – Showing the evergreen windbreak hedge on the south-eastern boundary of the site. The proposed location of the solar array is visible in the foreground.



**Photo 03** – Showing the proposed location of the solar array (foreground) with the evergreen windbreak hedge visible in the background.



**Photo 04** – Showing the detail of the sward – the number of larger, often non-native herbaceous species can be seen.

#### 4.2. Bats

#### 4.2.1. Roosting Habitat

The desk study of records held by the Isles of Scilly Bat Group does not identify any records of bats previously roosting within the site or within 700m of the site.

The proposals would not directly or indirectly impact on any buildings or trees suitable for use by roosting bats.

#### 4.2.2. Foraging Habitat

The site is likely to provide a foraging resource for local common pipistrelle populations as part of a wider landscape. However the change in land use is considered de minimis in terms of impacts on potential foraging habitat and the potential for enhanced grassland habitats post-development would offset any impacts.

#### 4.2.3. Commuting Habitat

The windbreak hedge on the south-eastern boundary and, to a lesser extent, the broken line of shrubs on the south-western boundary are likely to be used by commuting bats to navigate between roosts and foraging habitat in the wider landscape..

#### 4.3. Birds

#### 4.3.1. Nesting Habitat

The following onsite habitats are likely to support nesting birds during the breeding season:

- The shrubs associated with the evergreen windbreak hedge on the southeastern perimeter of the site and the broken line of shrubs present on the south-western boundary;
- There is a risk of ground-nesting species or those which favour tussocky grassland and scrub habitats finding nesting habitat within the grassland itself this is considered to be unlikely given the management at the time of surveys but should be considered in accordance with the precautionary principle.

Any nesting opportunities within or in close proximity to the site are likely to support common farmland and peri-urban bird species.

#### 4.3.2. Foraging Habitat

All habitats on site are likely to provide foraging habitat for common bird species as part of a wider resource landscape.

#### 4.4. Other Ecological Receptors

The habitats onsite are likely to support a wide range of **invertebrates**, as well as common small mammal species such as **white-toothed shrew**.

No further species would require consideration in order to support the current planning application.

## 5. Evaluation

#### 5.1. Proposals

The proposed works were identified by the client and illustrated in Currie & Brown drawing PL4101565\_NP\_01\_01.

The proposals include the installation of an 11kWp solar array on a footprint of 0.04ha of rough grassland. These would be mounted on metal support frames – there is an aspiration to use ground-anchors to secure these but a worst-case assumption of concrete pads is made for the purposes of this assessment.

Short-term impacts over a small linear area would arise from cable trenching to connect the array in with existing onsite infrastructure.

The efficient function of the panels may necessitate a reduction in the overhang of the evergreen windbreak hedgerow to the south-east in order to reduce shadowing of the panels.

#### 5.2. Assessment of Ecological Impacts

#### 5.2.1. Statutory and non-statutory Sites

The proposed development would not impact directly or indirectly upon any offsite statutory sites.

#### 5.2.2. Habitats

The proposals would lead to an alteration in the character of the grassland through a level of shading from the solar panels. There would be a negligible reduction in overall extent of the habitat at the location of the ground anchors or concrete pads.

A minor reduction in the overhanging evergreen windbreak hedge may be required to ensure efficient operation of the panels and this would translate into long-term management to maintain the feature within a smaller form.

Short-term disturbance to the sward through trenching to install the cable route is unlikely to represent significant damage and would quickly restore from the existing seed bank.

#### 5.2.3. Bats

The proposals would not impact directly or indirectly on features suitable for use by roosting bats.

Any minor reduction in the suitability of the grassland to support foraging resources for local bat populations (through shading by the panels) could be

offset through enhanced management of the surrounding grassland within the site to encourage a diverse pollinator population.

No impacts to commuting routes are identified – reductions in the overhang of the evergreen windbreak hedge would modify this feature but not in such a way as to affect its presence as a tall, vegetated structure within the local landscape.

#### 5.2.4. Nesting Birds

The installation works have the potential to disturb breeding birds if they are using the footprint of the proposed solar array location for nesting at the time of construction, or during the cutting back of the evergreen windbreak hedge. These could be controlled through standard avoidance methods.

As in the case of bats - any minor reduction in the suitability of the grassland to support foraging resources (through shading by the panels) could be offset through enhanced management of the surrounding grassland within the site.

#### 5.2.5. Other Species

Ground works and clearance could impact upon small mammals such as lesser white-toothed shrew if they are present in the footprint of the site at the time of construction. This could lead to killing or injuring in the absence of an appropriate working methodology.

The assessment did not identify the presence of, or suitable habitat for, other protected species. No further impact assessment is therefore provided.

### 6. Recommendations

#### 6.1. Further Survey Requirements

The ecological baseline presented in this report is considered to be sufficient to assess the impact of the proposals upon ecological receptors. No further surveys are therefore recommended to support the application.

#### 6.2. Timing of Works – Nesting Birds

The onsite vegetation – including both the grassland sward and the boundary windbreak hedgerow – offers suitable nesting habitat for breeding birds as detailed in Section 4.3. In order to ensure legislative compliance, the contractors undertaking the works must ensure that nesting birds are not disturbed in accordance with requirements under the Wildlife and Countryside Act (1981)<sup>7</sup>.

The most reliable means of ensuring nesting birds are not impacted by the works is for clearance works affecting relevant areas to be conducted outside the bird breeding season of March to September inclusive. Works can be undertaken outside of the breeding season without constraints relating to breeding birds.

If works are scheduled to commence during the breeding season, a nesting bird survey would need to be carried out by a suitably qualified person prior to commencement. Careful observation of any potential nesting sites would be required to ensure that the parent birds are not visiting a nest and provisioning the young. Nests are only protected if they are active (i.e. being used to rear young) or in the process of being built.

- Where active nests are identified, works affecting these areas must be delayed until the chicks have fledged the nest.
- Once it is confirmed that nests are absent or no longer active, the relevant features should be dismantled carefully and by hand as a precaution.

Measures to protect retained habitats which might support nesting birds may include barriers where required, and signs identifying areas which contractors should avoid.

#### 6.3. Biodiversity Net gain

The project should secure a Biodiversity Net Gain through appropriate landscaping and habitat creation within the redline of the development where possible. This is to ensure compliance with Local Plan policy OE2(2d) which requires that projects *"ensure proportionate and appropriate biodiversity net-gain is secured"*.

<sup>&</sup>lt;sup>7</sup> HMSO (1981). Wildlife and Countryside Act 1981 (as amended). HMSO, London.

The scale of the development, and the very minimal direct impacts (which are restricted to the footings for the new solar array) would suggest that completion of the detailed BNG Metric would not be proportionate to this site if submission of the application is targeted before the 2<sup>nd</sup> April 2024 when the statutory BNG assessment becomes mandatory.

BNG allows quantification of habitat conversion between types with reference to condition, distinctiveness and local relevance which is very subjective outside of this framework. In the case of the site under consideration, loss of habitat will be de minimis and there is no change in habitat type (eg. from grassland to woodland). A management plan to enhance the retained sward can achieve a net gain with a high degree of confidence.

The requirement to demonstrate measurable net gain could therefore be met to ensure compliance with OE2 without the formality of the BNG metric, at the discretion of the LPA. However the Small Sites Metric can be completed using the data gathered on site to quantify this enhancement if required and submitted during the determination period.

#### 6.4. Site Clearance

This recommendation relates to the core area where the panels will be installed and the cable route. The habitat enhancement recommendations outlined in Section 6.5 would be seasonally constrained to autumn to ensure successful establishment of wildflowers, and this may not be compatible with the programme for panel installation.

If the timeframes outlined in Section 6.5 would coincide with construction, then it can be enacted within a single operation. If panels are to be installed at a different time of year, then the prescription for clearance outlined in Section 6.5.2 could be followed as a stand-alone methodology without the seasonal constraint (though see notes in 6.2 regarding timing of works).

#### 6.5. Habitat Enhancement

#### 6.5.1. Overview

The existing sward is typical of many grassland habitats on Scilly with regards its significant representation of non-native and invasive species. The underlying sward is grass-dominated and shows signs of historical nutrient enrichment both in terms of the density and character of the grass sward; and the composition of herbaceous species.

Enhancement of the retained habitat could therefore focus on two aspects:

- an initial intervention to introduce new native species; and
- ongoing management to reduce nutrient status, reduce vigour of nonnative species, and encourage the development of a biodiverse native sward.

The extent of this enhancement should be across the entire grassland sward (as illustrated in Map 03) if possible, or within a smaller area focussed around the location of the panels.

#### 6.5.2. Initial Intervention

There are no practical approaches to fully remove the range of invasive species within the sward without recourse to repeated herbicide applications which are not considered appropriate in a conservation context.

Initial intervention could therefore represent incremental mowing – first with a high bar and lowering after several days to finish with a low cutting height to remove the existing sward to ground level. This initial cut would encourage small mammals and other species to leave the area through disturbance to prevent killing or injuring. Arisings must be removed.

#### 6.5.3. Species Introduction

The density of the existing grassland sward is likely to confer a high proportion of bare ground beneath the vegetation and provide an excellent seed base for introduction of new species.

The sward should be over-sown with a species-rich native grassland mix. It would be optimal to use island-collected seeds potentially involving a green hay mix from another species-rich grassland within the islands. Discussions with the Wildlife Trust may allow a suitable source to be identified. If this is not appropriate, seed mixes should be tailored to the species native on the islands.

This initial intervention for grassland enhancement should be timed during the autumn period in order to maximise the chances of germination.

#### 6.5.4. Ongoing Management

The grassland should be managed by cutting up to x2 per year and all arisings removed off site.

The grass should be first cut in March to a height of approximately 5cm – this is to replicate the impacts of traditional winter grazing in a hay meadow context and would serve to ensure the sward is low enough to avoid interference with the panels at the beginning of the key generation season. It would also reduce the vigour of non-native species, especially three-cornered leek and Bermuda buttercup, which are at their peak in early spring and could be significantly diminished by this action.

A further 'hay cut' can be undertaken in August/September and all arisings should be removed from the site. Recommended cutting machinery for this operation would be a reciprocating blade mower (such as an Allen scythe), which can cut tall grassland at a single point near to ground level, thus facilitating removal of arisings.

Further management of the sward directly around the panels could be undertaken responsively using hand tools such as a strimmer throughout the year as required in order to ensure that the sward is not interfering with the operation of the panels. This should be restricted to those areas necessary to ensure optimal performance.

6.5.5. Monitoring and Review

The management strategy should be reviewed in order to ensure it is achieving the desired habitat enhancement. This could be undertaken by the contractors completing the work, if confident to assess the changes in the sward characteristics. Alternatively, ecological input can be sought.

The key aims against which success should be measured are:

- A reduction in the prevalence of non-native species such as threecornered leek and Bermuda buttercup;
- An increase in the number of desirable herbaceous species, defined by establishment of those included within the seed mix or source;
- An increase in herbaceous composition of the sward with a lower density of grass, especially the locally dominant fescue.

The management of the sward should be amended as required to achieve these aims.

#### 6.6. Habitat Boxes

6.6.1. Solitary Bee Boxes

The proposed management of the sward would represent a significant increase in pollinator resource; therefore incorporation of solitary bee nest boxes would have a high probability of occupation if correctly sited. It is recommended that **2 solitary bee boxes** are installed in association with the array.

Box designs should be selected with regards to ecological function, rather than aesthetic, and positioned close to areas of foraging resource such as pollinator-friendly planting, and facing either east or south in a sunny location at a height of between 1 - 4m above ground level. Further information can be found at the Bumblebee Conservation Trust website<sup>8</sup>.

<sup>&</sup>lt;sup>8</sup> https://www.bumblebeeconservation.org/bee-nest-boxes/

#### 6.6.2. Hedgehog Boxes

A hedgehog box could be installed within the new landscaping in order to provide a habitat resource for this species.

A specific box can be purchased for the purpose, and should be sited in a quiet area of the site away from routine disturbance by users of the site. The box should be positioned under shrubs and in a shady, sheltered location. Adding logs or brash retained from the site clearance works would improve the appeal of this feature for hedgehogs, but care must be taken to ensure that any branches are stable and do not block the entrance.

#### 6.7. Invasive Species

Under the Wildlife and Countryside Act, 1981<sup>9</sup>, a number of alien plant species are listed in Schedule 9 Part II. These are species which have become naturalised in Britain, usually as garden escapes. Section 14 (2) of the Act states that an offence is committed "*if any person plants or otherwise causes to grow in the wild any plant*" in Schedule 9.

Three-cornered leek and montbretia are listed on Schedule 9; however these species are ubiquitous across the islands and their low-level presence on the site is commonplace. Other invasive species as listed in Section 4.1.1 are not listed under Schedule 9, but their spread should be avoided in line with Local Plan Policy OE2(1d) and (2c).

It is incumbent on a landowner to ensure that any actions of land management or development do not result in the plant being spread either within the existing site or elsewhere. This should be a consideration when determining where arisings from management should be disposed of in order to avoid the risk of viable plant material contaminating other sites.

#### 6.8. Survey Validity and Update

The surveys were completed in March 2024. Many species are transient in their use of habitats, and apparently minor changes in condition or use of the site can affect suitability. However in the absence of significant changes in condition or use of the site, the nature and character of the site suggest that:

• The PEA assessment can be considered valid for a period of 18 months after the survey was completed, until September 2025.

If Planning Permission is not applied for by this date, the ecology surveys should be updated as required.

<sup>&</sup>lt;sup>9</sup> HMSO (1981, as amended). Wildlife and Countryside Act 1981. HMSO, London.

# Appendix 1 – Relevant Legislation

#### The Habitat Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) or the 'Habitat Regulations 2017 (as amended)', ensures wild animals of a European Protected Species and their breeding sites or resting places are protected under Regulation 43. Such wild animals of a European Protected Species include great crested newts, otters, dormice and all species of bat. It is an offence to deliberately capture, injure or kill any such wild animal and in the case of great crested newts, deliberately take or destroy their eggs. It is also an offence to deliberately damage or destroy a breeding site or resting place of any such wild animal.

Wild animals of a European Protected Species are also protected from disturbance under Regulation 43. Disturbance of such wild animals includes in particular any disturbance which is likely:

- (a) 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* 

(b) To affect significantly the local distribution or abundance of the species to which they belong.

# The Wildlife and Countryside Act (as amended) and Countryside and Right of Way Act (CRoW) Act 2000 (as amended)

The Wildlife and Countryside Act 1981 (as amended) and the CRoW Act 2000 (as amended) afford protection to wild birds in England and Wales under Part 1. It is an offence to intentionally kill, injure or take any wild bird. It is also an offence to intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built, or intentionally take or destroy their eggs. If the wild bird is included on the Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), it is additionally an offence to intentionally or recklessly disturb the wild bird whilst on the nest during the breeding season.

Certain species of animal, such as the water vole, are offered 'full protection' under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act 2000 (as amended) by being included in Schedule 5 in respect of certain offences under Section 9. Such offences include:

9(1) Intentional killing, injuring or taking of a Schedule 5 animal;

9(4a) Intentional or reckless damage to, destruction of or obstruction of any structure or place used by a Schedule 5 animal for shelter or protection;

# 9(4b) Intentional or reckless disturbance of a Schedule 5 animal occupying such a structure or place.

Widespread species of native reptiles occurring within England and Wales such as the adder or common lizard are protected against intentional killing and injuring under the Wildlife and Countryside Act 1981 (as amended) only. Animals of a European Protected Species are now only protected under offences 9(4a) and 9(4b) of Section 9, the main legislative tool covering such animals is under the 'Habitats Directive 2010 (as amended)'.

#### The Hedgerow Regulations 1997

Under the Hedgerow Regulations 1997, it is an offence to remove most hedgerows without the issuing of a Hedgerow Removal Notice from the Local Planning Authority. 'Important hedgerows' are those protected under the 1997 Regulations if they are over 30 years old and satisfy one of the criteria under Part II, Schedule 1, based on archaeology and history or wildlife and landscape.

In the case of 'Important' hedgerows, the Local Planning Authority will only issue a Hedgerow Removal Notice if there are sufficient circumstances to justify its removal. If sufficient circumstances do not exist then the Local Planning Authority will issue a Hedgerow Retention Notice and the 'Important' hedgerow will be protected under the 1997 Regulations. Unauthorised removal of the 'Important' hedgerow may result in a fine and/or a requirement for the hedgerow to be replaced.

#### Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities (NERC) Act came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 41 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six habitats of principal importance and 943 species of principal importance are included on the S41 list. The habitats and species on the S41 list are included within the UK Biodiversity Action Plan (UK BAP) as requiring conservation action. The requirement for action continues to be regarded as a conservation priority in the subsequent UK Post 2010 Biodiversity Framework. At a local level the actions and targets are still referred to as BAPs.

