

# Parc Solar Caenewydd, Swansea

## No Significant Effects Report to Inform Habitats Regulations Assessment

Development of National Significance in the Renewable Energy Sector  
Application Submission





## Parc Solar Caenewydd

# No Significant Effects Report to Inform Habitats Regulations Assessment

Report No: 21/3752.04

Date: December 2023

Client: Taiyo Power and Storage Ltd

<b>Revision</b>	<b>Prepared by</b>	<b>Authorised by</b>	<b>Dated</b>
<b>Initial Issue</b>	<b>Alex Parr MRes</b>	<b>Li-Li Williams MEnvSci. (Hons) MCIEEM</b>	21/12/2023

This report has been prepared for Taiyo Power and Storage Ltd in accordance with the terms and conditions of appointment supplied with Tender Number T/3752.01 dated 24<sup>th</sup> March 2021. Devon Wildlife Consultants cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

Devon Wildlife Consultants is a trading style of Devon Wildlife Enterprises Limited.

## Contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Introduction .....	1
1.2	Background.....	1
1.3	Development Proposals.....	1
1.4	Legislative Background - HRA .....	2
1.4.1	Habitats Regulations Assessment Process.....	3
<b>2</b>	<b>Survey Methodology .....</b>	<b>5</b>
2.1	Baseline Surveys .....	5
2.1.1	Extended Phase 1 Habitat Survey.....	5
2.1.2	Desk Survey .....	5
2.2	Further Surveys.....	6
2.2.1	Breeding Bird Survey.....	6
2.2.2	Wintering Bird Survey.....	6
2.3	Limitations .....	7
2.4	Personnel.....	7
2.5	Consultation.....	7
<b>3</b>	<b>Survey Results .....</b>	<b>10</b>
3.1	Designated Sites .....	10
3.2	Habitats .....	11
3.3	Ornithology .....	11
3.3.1	Breeding Birds.....	11
3.3.2	Wintering Birds .....	12
<b>4</b>	<b>Potential Impacts.....</b>	<b>13</b>
4.1	Camarthen Bay and Estuaries SAC .....	13
4.2	Burry Inlet Ramsar Site, SPA and SSSI .....	14
4.3	Cumulative Impacts .....	14
4.4	Conclusions .....	14
	References .....	15
	Appendices .....	16
	Appendix 1 – Ecological Survey Plans .....	17
	Appendix 2 – Designated Sites .....	18
	Appendix 3 – Legislation .....	19

## **1 Introduction**

### **1.1 Introduction**

This No Significant Effects Report (NSER) to inform Habitats Regulations Assessment (HRA) Report has been prepared by Devon Wildlife Consultants (DWC) on behalf of Taiyo Power & Storage Limited (herein referred to as “the applicant”) and forms part of a suite of documents supporting a planning application for Development of National Significance for the construction, operation, management and subsequent decommissioning of a co-located solar farm and battery storage facility on land fronting the A484 and Swansea Road (B4560) at Gowerton, Swansea (“the application site”).

The development is known as ‘Parc Solar Caenewydd’.

The wider survey area comprises approximately 145ha of mixed farmland, watercourse and woodland habitats.

### **1.2 Background**

An Ecological Appraisal (DWC Report No. 21/3752.02) has been produced for the site and presents full ecological findings and assessment. The wider survey area was subject to a preliminary walkover survey on 20<sup>th</sup> April 2021, which was followed by detailed botanical surveys of areas of habitat identified with higher potential value. Further protected species surveys were also undertaken across the survey area until November 2022, including wintering bird surveys. The results of the surveys informed development of the concept layout and landscaping.

### **1.3 Development Proposals**

It is proposed to create extensive green infrastructure across the majority of the proposed development site with a ground mounted solar and battery storage facility and associated infrastructure. An operational lifespan of 40 years is sought for the proposed solar power station element of the scheme. It should be noted that the potential array layout forms a smaller proportion of the total area of the wider survey area. The layout excludes woodland, scrub, watercourses and other high value habitats or features identified during the survey period.

Ecological input was sought from an early stage of design and findings used to inform the layout in order to avoid and minimise potential ecological impacts in line with the mitigation hierarchy; the redline boundary includes the majority of the site area which will be utilised for habitat creation and enhancement. This design process has included consideration of alternative layouts and design elements which were considered to result in greater ecological impacts and therefore discounted or redesigned.

In particular, iterations of the design involved the removal of proposed works under/over Afon Llan, connecting to a proposed site to the south which has also now been removed from site layout. The redline boundary to the north of the river was also changed to remove several fields

adjacent to the river, providing a larger buffer zone and additional areas for habitat enhancement and buffering.

The solar modules will be mounted on south facing galvanised steel and anodised aluminium metal racks. The racks will be laid out in multiple parallel rows running east to west across the various field enclosures. The framework and arrays would be static, and the distance between the arrays would respond to topography but would vary between 3.0m to 5.2m. The arrays would be set within a 2.0m high security fence. Cables linking the rows of panels will be buried in the ground within trenches, typically 0.5-1.1m in depth. Further cables will be used to link areas of panels to inverters and then the substation compound. An internal access track is required, which involves the laying of permeable aggregate.

The outline CEMP accompanying the application submission sets out the commitments of the applicant and developer towards securing specific mitigation measures and best working practices to adequately protect environmental resources during the construction phase of the development, including potential impacts on human receptors. It sets out details on the construction working approach, including details on proposed working hours, construction compounds, control of lighting, management of vehicle movements, wheel washing facilities and waste removal.

#### **1.4 Legislative Background - HRA**

The EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitats and wild fauna and flora) establishes the requirement for HRA in Article 6(3) and 6(4):

*‘Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.’*

Article 6(3)

*‘If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the member states shall take all compensatory measures necessary to ensure that overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.’*

Article 6(4)

The Habitats Directive is transposed into UK legislation by the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019. This legislation imposes a statutory duty on all competent authorities to act in accordance with the Regulations.

#### 1.4.1 Habitats Regulations Assessment Process

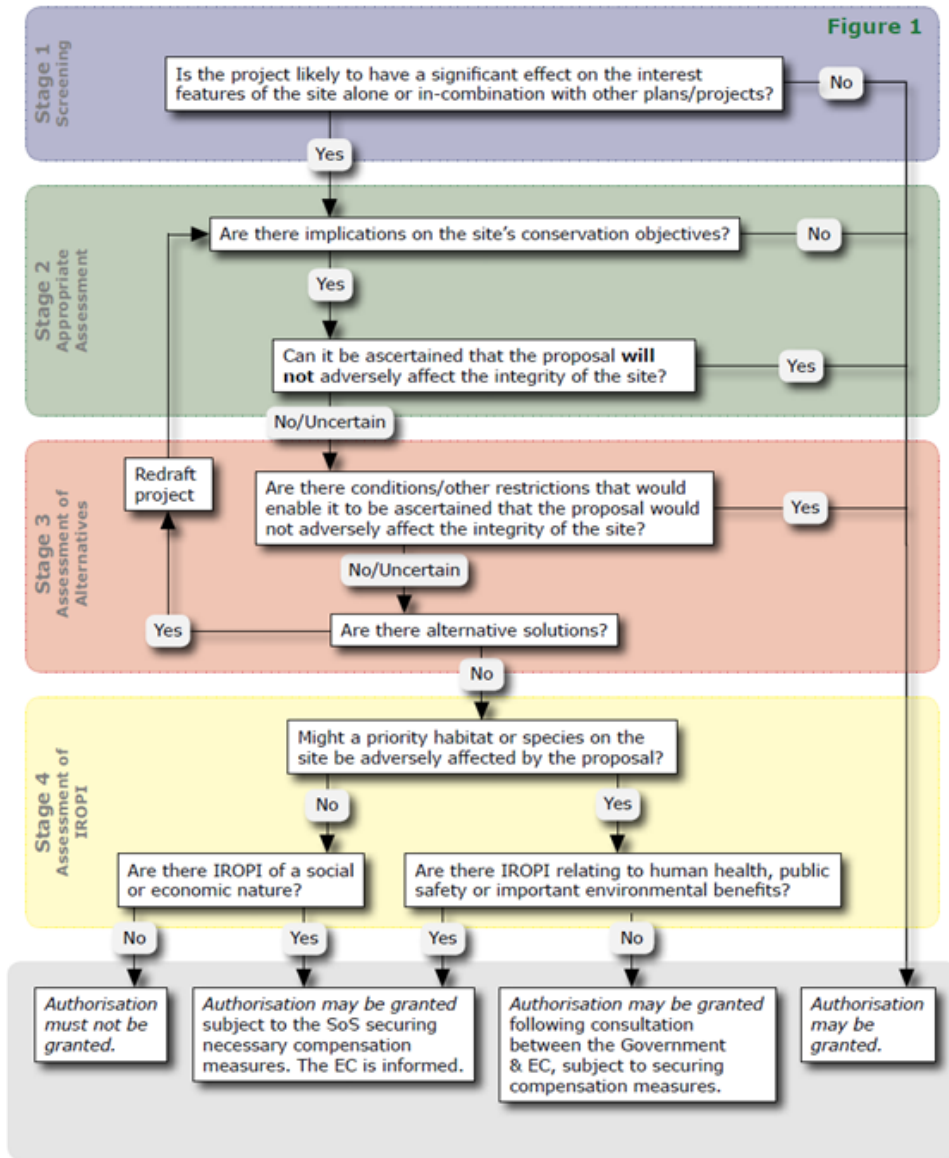
The purpose of an HRA is to assess the effects of a plan or project, in combination with the effects of other plans and projects, against the conservation objectives of a European nature conservation site and to ascertain whether that project would adversely affect the protection or integrity of such a site.

An HRA is a multi-stage process undertaken by a competent authority. As detailed in The Planning Inspectorate Developments of Natural Significance Appendix 4: Habitats Regulations Assessment, the Welsh Ministers are the competent authority in relation to applications for Developments of National Significance. The Welsh Ministers are therefore required to carry out and consult on an Appropriate Assessment (AA) in circumstances where the plan or project is likely to have a significant effect on a European site or a European Marine site.

The main steps of HRA are:

1. Screening to identify whether the project is likely to have a significant effect on the European Site;
2. Appropriate assessment to consider, in more detail, the likely significant effect on the conservation objectives of the European Site, alone and in combination with other plans and projects; and
3. Assessment of mitigation options and alternative solutions where adverse effects are identified.
4. Consideration of Imperative Reasons of Overriding Public Interests (IROPI).

Figure 1 (The Planning Inspectorate Advice Note: Habitat Regulations Assessment) summarises the four-stage process of HRA.



**Figure 1: Four-stage process of HRA**



## 2 Survey Methodology

### 2.1 Baseline Surveys

An Ecological Appraisal (DWC Report No. 21/3752.02) has been produced for the site and presents full ecological findings and assessment.

#### 2.1.1 Desk Survey

Lle (<https://lle.gov.wales>) was consulted in order to assess whether the site is present within a 10km radius of any statutory designated sites. Searches undertaken for the desk study are summarised in Table 2.1:

Source	Information sought
LERC Wales Aderyn	A standard search area consisting of a 1km radius of the site from a central grid reference was requested from LERC Wales Aderyn. Details of statutory and non-statutory sites designated for nature conservation or interest, together with records pertaining to protected species and/or species of conservation concern were obtained.
Lle ( <a href="https://lle.gov.wales">https://lle.gov.wales</a> )	Information regarding the presence of statutory designated sites within a 2km radius of the site. The search was extended to 10km for Natura 2000 sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA)).
Open source 1:25,000 Ordnance Survey mapping	Any mapped water bodies within a 500m of the site.

**Table 2.1 Summary of Desk Study Search Methodology**

#### 2.1.2 Extended Phase 1 Habitat Survey

The wider survey area was subject to a preliminary walkover survey on 20<sup>th</sup> April 2021 by Li-Li Williams MEnvSci. (Hons) MCIEEM (Consultancy Manager), Kitty Straghan BSc. (Hons) MCIEEM (Principal Ecologist), Alex Parr MRes. (Assistant Ecologist) and James Woodin BSc. (Hons) (Assistant Ecologist).

## 2.2 Further Surveys

Further to the PEA, a suite of further protected species surveys were undertaken. Of those, the following further surveys have been utilised to inform this report:

### 2.2.1 Breeding Bird Survey

Further to the findings of the initial walkover survey, the Breeding Bird Survey comprised two survey visits undertaken on the mornings of 17<sup>th</sup> May 2021 and 22<sup>nd</sup> June 2021, to confirm presence/absence of nesting bird species, particularly ground-nesting birds within the fields. Due to the low number of ground-nesting birds identified during these surveys, further survey visits to identify and map territories were not required, in agreement with the planning ecologists at Swansea Council and Natural Resources Wales (Section 2.5).

Transect routes were walked around the survey area and passed within close proximity of all key habitats present within the site, focusing on grassland and arable habitats within the solar array layout. Hedges, scrub and woodland were excluded as these habitats will be retained, buffered and protected. All bird species heard/observed within the site and their associated behaviour was recorded. Surveys were undertaken by experienced bird surveyors; Li-Li Williams (MEnvSci) Hons MCIEEM, Alexander Parr MRes. and Kitty Straghan BSc. (Hons) MCIEEM.

Incidental bird recordings have been made throughout all further survey visits to the site.

### 2.2.2 Wintering Bird Survey

The Wintering Bird Survey comprised monthly survey visits undertaken in the mornings between 28<sup>th</sup> October 2021 and 29<sup>th</sup> March 2022. This is considered to meet current survey guidelines pertaining to survey effort (<https://birdsurveyguidelines.org/non-breeding-walkover-survey/>). Raw data and weather conditions are presented in Appendix 5. A map of the transect routes and Vantage Points is presented in Appendix 6. Transect routes were walked around the survey area and pass within close proximity of all key habitats present within the survey area, focusing on grassland and arable habitats within the solar array layout. Hedges, scrub and woodland were excluded as these habitats will be retained, buffered and protected.

All bird species heard/observed within the survey area and their associated behavior was recorded. Observation was undertaken from Vantage Points located across the site offering views over the site or key habitats, utilising a telescope and binoculars. Surveys were undertaken in suitable weather conditions (low wind, dry or light rain) and to correspond with a range of tidal conditions. The surveys commenced approximately 30 minutes after sunrise in order to identify any potential night roosts. Surveys were undertaken by Li-Li Williams (MEnvSci) Hons MCIEEM and Alexander Parr MRes (Merit) who are experienced bird surveyors including experience of volunteer WeBS surveys, and 12 years of experience of wintering and wetland bird surveys of European sites including the Humber Estuary, Exe Estuary and Taw-Torridge.

It should be noted that these surveys are considered to be valid and up to date for the purposes of the current submission. However, due to the survey window for updated Wintering Bird

Surveys in combination with the current proposed project timescales, an updated survey is currently being undertaken from October 2023 to March 2024. There have been no significant changes to the previous survey findings to date.

### 2.3 Limitations

It is possible that some species may have been overlooked in the field or were not recorded because they were not evident at the time of survey. No account can be taken for the presence or absence of a species on any particular day. However, survey effort has been designed to identify reasonable likelihood of presence/absence of the targeted species.

An ecological walkover of the proposed cable route options undertaken in 2023 indicated that site conditions have not changed significantly and therefore ecological survey findings are likely to remain valid. The need for updated ecological survey should be reviewed again prior to 2024.

### 2.4 Personnel

DWC staff are professional ecologists and follow the code of conduct of the Chartered Institute of Ecology and Environmental Management (CIEEM). This survey work has been undertaken following the CIEEM Guidelines for Preliminary Ecological Appraisal (CIEEM, 2013).

### 2.5 Consultation

Consultee	Date	Summary
Kathryn Jones, Planning Ecologist at Swansea Council	26/07/2021 05/10/2021	Agreement of ecological survey effort, survey findings to date and initial mitigation approach. The scope of surveys was agreed.
Rhian Jardine, Natural Resources Wales	17/06/2022 – 26/07/2022	Discussion pertaining to EIA Screening, confirming the information submitted has satisfied concerns regarding ground nesting birds. <i>“I have spoken with our Ornithologist and the information submitted has satisfied our concerns regarding ground nesting birds. We have no further comments regarding this matter”</i> .
Adeline Wilcox, Planning Officer PEDW	28/07/2022	Letter to PEDW to confirm that Natural Resources Wales have concluded that the further information submitted on 8 <sup>th</sup> July 2022 has satisfied their concerns regarding ground nesting birds.

<p>Hannah Roberts, Natural Resources Wales</p>	<p>17/08/2023</p>	<p>Pre-Application Consultation response:          “2.3. Protected Sites          As previously advised within our DAS response, the development site lies approximately 1.8km to the east of the Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar and SPA, and the Burry Inlet and Loughor Estuary SSSI. The site is on a southwards slope with many small streams arising on this land which drain southwards directly into the River Llan, a main river, which runs through the south of the site before ultimately discharging into these sites. The Penplas Grasslands SSSI lies approximately 1.7km to the north east of the site.          In relation to the Penplas Grasslands SSSI, we note that section 3.1.2 of the Ecological Appraisal states that “There are no identified pathways to this site, and it is not anticipated that the Penplas Grasslands SSSI will be affected by the proposed works. Therefore, this site will not be considered further within the current assessment” – we agree with this assessment.          However, and as previously advised, due to the direct hydrological link between the development site and protected sites above (all but the Penplas Grasslands SSSI), there is the potential for a pollution pathway. Noting the distance between the sites, we advise the development may not result in an adverse effect on the sites’ integrity if a robust Construction Environmental Management Plan (CEMP) is implemented. Please note this aspect is further discussed below under Section 3 ‘Pollution Prevention’. Our comments on any effects on the bird features of the protected sites are provided under ‘Ornithology’ under Section 2.2. above.          Further information on the CEMP and Ornithology is required to be provided upfront in support of any application, which will also be required to enable PEDW to carry out a HRA under Regulation 63 of The Conservation of Habitats and Species Regulations 2017 (as amended).          PEDW, as the Competent Authority in this instance under the Conservation of Habitats and Species Regulations 2017 (as amended), must, before deciding to give consent for a project which is likely to have a significant effect on a national site network site and Ramsar, either alone or in combination with other plans or projects, make an appropriate assessment of the implications of the project for that site in view of its conservation objectives. They must for the purposes of the assessment consult NRW and have regard to any representations we make within such</p>
--	-------------------	--

		reasonable time as you specify. In the absence of that assessment, NRW cannot advise that the proposals would not result in an adverse effect upon the above listed sites.”
--	--	---

### 3 Survey Results

#### 3.1 Designated Sites

When considering the Zone of Influence for European designated sites within a 10km radius, the following sites have been identified:

Site Name	Designation	Distance from Site Boundary
Burry Inlet	Ramsar	1700m
Burry Inlet	SPA	1700m
Gower Commons	SAC	3300m
Gower Ash Woods	SAC	7400m
Camarthen Bay and Estuaries	SPA	1700m
Crymlyn Bog	SAC	7800m
Crymlyn Bog	Ramsar	7800m
Limestone Coast of South West Wales	SAC	9800m

**Table 3.1 Designated Sites within Zone of Influence of the Works**

Gower Commons SAC is designated for Northern Atlantic wet heaths, European dry heaths, Molinia meadows, southern damselfly and marsh fritillary butterfly.

Gower Ash Woods SAC is designated for one of the most extensive areas of Tilio-Acerion forests in Wales.

Crymlyn Bog SAC and Ramsar Site is designated for transition mires and quaking bogs, calcareous fens and alluvial forests. The valley floodplain mire supports notable plant and invertebrate communities.

Limestone Coast of South West Wales SAC is designated for its vegetated sea cliffs, fixed coastal dunes, greater horseshoe bat hibernation site and early gentian population.

No potential pathways or potential impacts on the designated features of the sites have been identified for Gower Commons SAC, Gower Ash Woods SAC, Crymlyn Bog SAC and Ramsar Site and Limestone Coast of South West Wales SAC.

It should be noted that where sites have been designated for specific species, the typical mobility/commuting range of these species and any suitable habitat links to the development site have been considered. The Limestone Coast SAC supports greater horseshoe bats. However, it is located 9.8km from the site, and a bat activity survey undertaken as part of the Ecological Appraisal did not identify the presence of greater horseshoe bats on site.

The site lies within 1.7km of Burry Inlet Ramsar Site, SPA and SSSI, and Camarthen Bay and Estuaries Special Areas of Conservation (SAC) and potential impacts on these sites have been identified, which are discussed below. Data forms for these sites are presented in Appendix 2.

#### *Camarthen Bay and Estuaries SAC*

The SAC is designated for its habitats including sandbanks, estuaries, mudflats and sandbanks, large shallow inlets and bays, Salicornia saltmarsh and Atlantic salt meadows. It is also designated for the Annex II species twaite shad, sea lamprey, river lamprey, allis shad and otter.

The Afon Llan river on site is connected to the Camarthen Bay and Estuaries SAC, creating a potential pathway connecting to the proposed green infrastructure and solar facility. This site and its associated interest features are therefore considered further in this assessment.

#### *Burry Inlet Ramsar Site, SPA and SSSI*

Burry Inlet Ramsar Site, SPA and SSSI is a large estuarine complex supporting the largest continuous area of saltmarsh in Wales, and large numbers of wildfowl and waders. It has recorded peak counts of 41,655 waterfowl in winter. It is particularly significant for oystercatcher, with other species with notable wintering numbers including knot, turnstone, pintail, shoveler, teal, wigeon, dunlin, curlew, grey plover, redshank and shelduck.

There is potential for wildfowl and waders to use the habitats within the survey area, therefore this site has been considered further in this assessment.

### **3.2 Habitats**

The survey area comprises approximately 145ha of mixed farmland, watercourse and woodland habitats, although the potential array layout forms a smaller proportion of this area, excluding woodland, scrub, watercourse and other high value habitats. This layout was informed by the ecological surveys.

The fields are dominated by arable crops, pasture utilised for cattle grazing and improved grassland which are managed on rotation. The surrounding landscape has features of high ecological value including woodland, hedgerows, mature trees and watercourse.

### **3.3 Ornithology**

Bird survey results are presented in consideration of wildfowl and waders that may be interest features of Burry Inlet.

#### **3.3.1 Breeding Birds**

The extensive areas of hedgerows, woodland and dense scrub within the survey area are considered likely to support a diverse assemblage of nesting bird species, potentially including species of conservation concern. The dense sward of the grassland is considered to be of potential value to ground-nesting birds such as skylark *Alauda arvensis*.

The breeding bird survey results combined with incidental sightings have confirmed the presence of breeding skylark in the grassland fields, and breeding lapwing *Vanellus vanellus* in the arable fields.

LERC hold eight records of skylark and four records of lapwing within a 1km radius of the site; the closest of these is a record of lapwing located within arable fields to the west of the farm.

A total of three pairs of lapwing were recorded in two of the arable fields. A likely lapwing egg which had been predated was located in the southern extent of a third arable field.

A total of five singing skylarks were recorded in four of the grassland fields located around the farmyard during the initial walkover survey. However, no evidence of breeding skylark was recorded during the subsequent breeding bird surveys. This may be due to stock rotation of cattle and cutting of grassland affecting the habitat suitability of these fields.

No further ground-nesting birds were recorded during the surveys. NRW confirmed that they have no further comments or concerns regarding ground nesting birds (by email dated 26<sup>th</sup> July 2022).

### 3.3.2 Wintering Birds

Due to the proximity of Burry Inlet Ramsar Site, SPA and SSSI and variety of habitats on site, there is potential that the survey area may be utilised for high tide roosting by wading and wintering bird species. Winter bird surveys were therefore undertaken on a monthly basis over 2021/2022, comprising walkover transects of all suitable habitats and visual searches from vantage points.

LERC hold records of wintering bird species including records of lapwing within the survey area and herring gull *Larus argentatus* adjacent to the survey area.

No significant wading bird species have been recorded utilising the survey area during the surveys. Low numbers of snipe *Gallinago gallinago* and wintering flocks of mixed finch species, meadow pipit *Anthus pratensis* and reed bunting *Emberiza schoeniclus* have been recorded during each survey, indicative of the foraging value of the arable fields. Small flocks of geese and duck species have been recorded flying over the site, following the line of the river. Survey data are presented in Appendix 5 and survey maps presented in Appendix 6.

It is considered unlikely that the survey area is utilised regularly by wading birds and waterfowl, although there is potential for the arable or wet grassland fields to be used on occasion. There is no evidence of notable species associated with Burry Inlet such as oystercatcher directly utilising the site,

It should be noted that these surveys are considered to be valid and up to date for the purposes of the current submission. However, due to the survey window for updated Wintering Bird Surveys in combination with the current proposed project timescales, an updated survey is currently being undertaken from October 2023 to March 2024. There have been no significant changes to the previous survey findings to date.



## 4 Potential Impacts

### 4.1 Camarthen Bay and Estuaries SAC

The Afon Llan is connected to the Camarthen Bay and Estuaries SAC approximately 1.8km downstream, creating a potential pathway connecting to the proposed solar array.

The NRW Pre-Application Advice Request (10<sup>th</sup> January 2023) states that “*Due to the direct hydrological link between the development site and protected sites above (all but the Penplas Grasslands SSSI), there is the potential for a pollution pathway. However due to the distance between the sites, we advise the development may not result in an adverse effect on the sites’ integrity if a robust Construction Environmental Management Plan (CEMP) is implemented.*”

During the construction phase there is the potential for temporary impacts of sediment runoff or pollution as a result of construction activity. In the absence of mitigation, it is considered that there would be a dilution effect as a result of the volume of the water associated with river inputs to the estuary. The amount of sediment that would be in suspension in the water column during the works will likely be negligible in comparison to any existing natural occurrence. Any additional sediment which deposits and covers the mudflat habitats associated with the SAC is likely to be very thin and is therefore unlikely to result in a change in the nature and extent of the habitat available, particularly in consideration of the likely current sediment runoff associated with the existing 13ha of arable fields which are ploughed up-and-down the contour lines (compared to contour ploughing, which reduces soil erosion and runoff).

The design process has included consideration of alternative layouts. In particular, iterations of the design involved the removal of proposed works under/over the Afon Llan. The redline boundary was also changed to remove several fields adjacent to the river from the layout, providing a larger buffer zone and additional areas for habitat enhancement and buffering.

During the operational phase of the scheme, it is considered that sediment runoff and nutrient load will be reduced due to the change to grassland from ploughed arable land, particularly for the fields adjacent and uphill of the river. Therefore, there will be no significant impact during operation.

No projects that would result in a cumulative impact of sediment runoff and pollution during the construction phase have been identified.

Therefore, a Habitats Regulations Assessment (HRA) is not considered to be required as there are no identified likely significant impacts upon this designated site or its key designated habitats and species.

As detailed by NRW and as a precautionary measure and standard good practice, any potential non-significant impacts will be avoided and mitigated through appropriate construction control and runoff design measures, set out in a detailed, robust Construction Environmental Management Plan (CEMP) to accompany planning. This includes details of roles, responsibilities, checks and monitoring. The outline trenchless crossing, pollution prevention and water management control measures in Sections 5 and 6 of the outline CEMP have been designed to avoid and minimise this risk to the downstream SAC.

The works are likely to have **no likely significant impact** on the SAC.

#### 4.2 Burry Inlet Ramsar Site, SPA and SSSI

As detailed in the bird survey results, no significant wading bird species have been recorded utilising the site during the targeted bird surveys. It is considered unlikely that the site is utilised regularly by wading birds and waterfowl, particularly species associated with Burry Inlet.

Therefore, there are considered to be no significant impacts on the waterfowl assemblage associated with Burry Inlet Ramsar Site, SPA and SSSI. The works are likely to have **no likely significant impact** on the Ramsar Site, SPA and SSSI.

#### 4.3 Cumulative Impacts

No projects that would result in a cumulative impact of sediment runoff and pollution during the construction phase have been identified. No other plans or projects have been identified that, in combination with the proposed development, would have a significant effect on the identified European Sites.

The screening stage must be undertaken on a precautionary basis without regard to any proposed integrated or additional avoidance or reduction measures. However, it should be noted that a CEMP has been produced for the site in line with NRW Pre-Application Advice.

#### 4.4 Conclusions

This report contains screening for Likely Significant Effects (LSE). It is considered that the development will not result in a likely significant adverse effect on the integrity of the Camarthen Bay and Estuaries SAC, and this has been confirmed by NRW. No LSE have been identified for Burry Inlet Ramsar and SPA. Therefore, this report is presented as a No Significant Effects Report (NSER) and HRA stages 2 – 4 will not be required.

## References

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

**Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019.** HMSO

**Devon Wildlife Consultants (2023).** *Parc Solar Caenewydd – Ecological Appraisal*. DWC, Exeter.

**Hedgerow Regulations (1997).** HMSO

**JNCC (2010).** *Handbook for Phase 1 Habitat Survey: A technique for environmental audit* (reprint). Joint Nature Conservation Committee, Peterborough.

**Lle.** <https://lle.gov.wales>

**Swansea Council (2021)** *Biodiversity and Development: Supplementary Planning Guidance*. Swansea Council, Swansea.

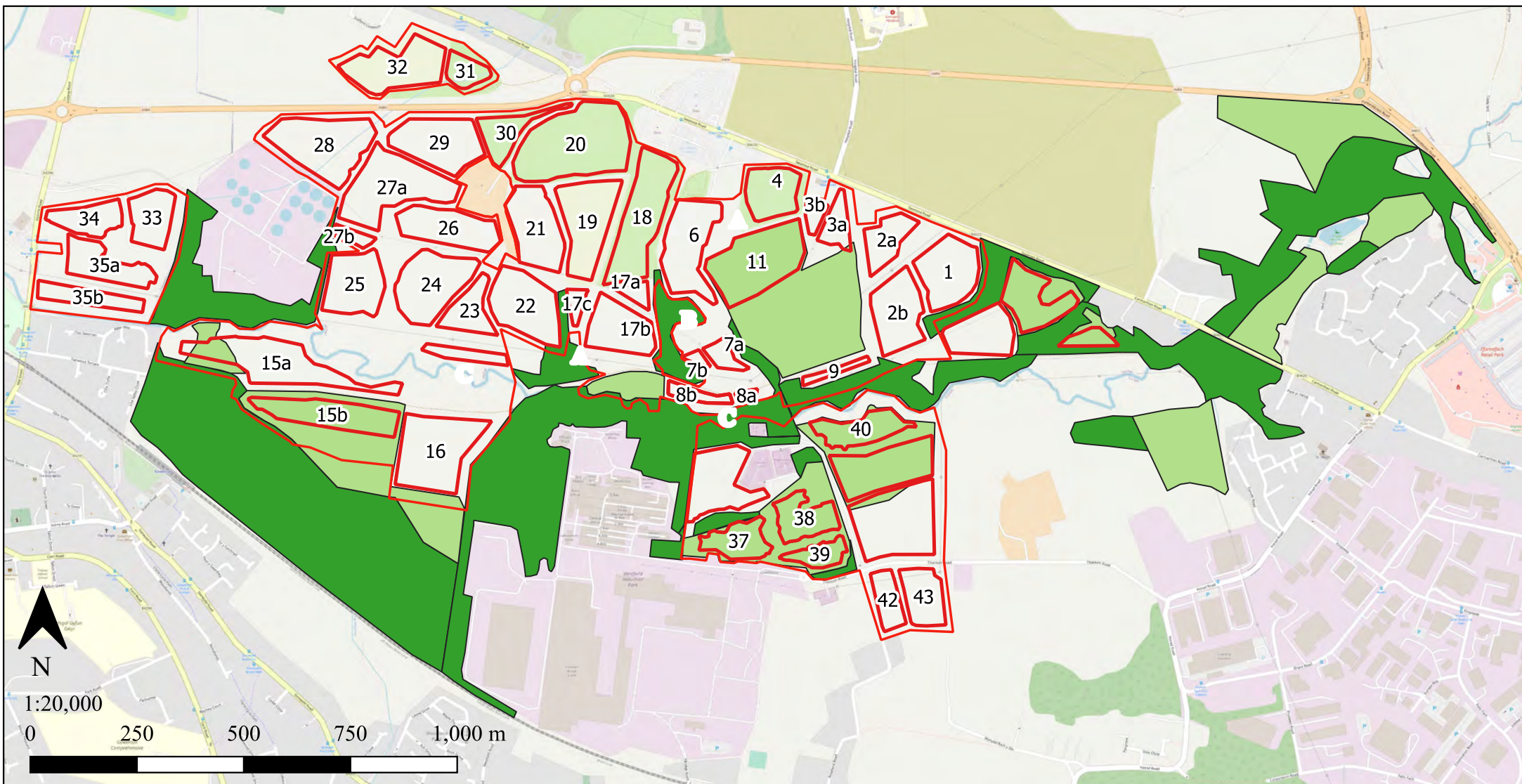
## Appendices

Appendix 1: Ecological Survey Plans

Appendix 2: Desk Study Search Data

Appendix 3: Legislation

## Appendix 1 – Ecological Survey Plans

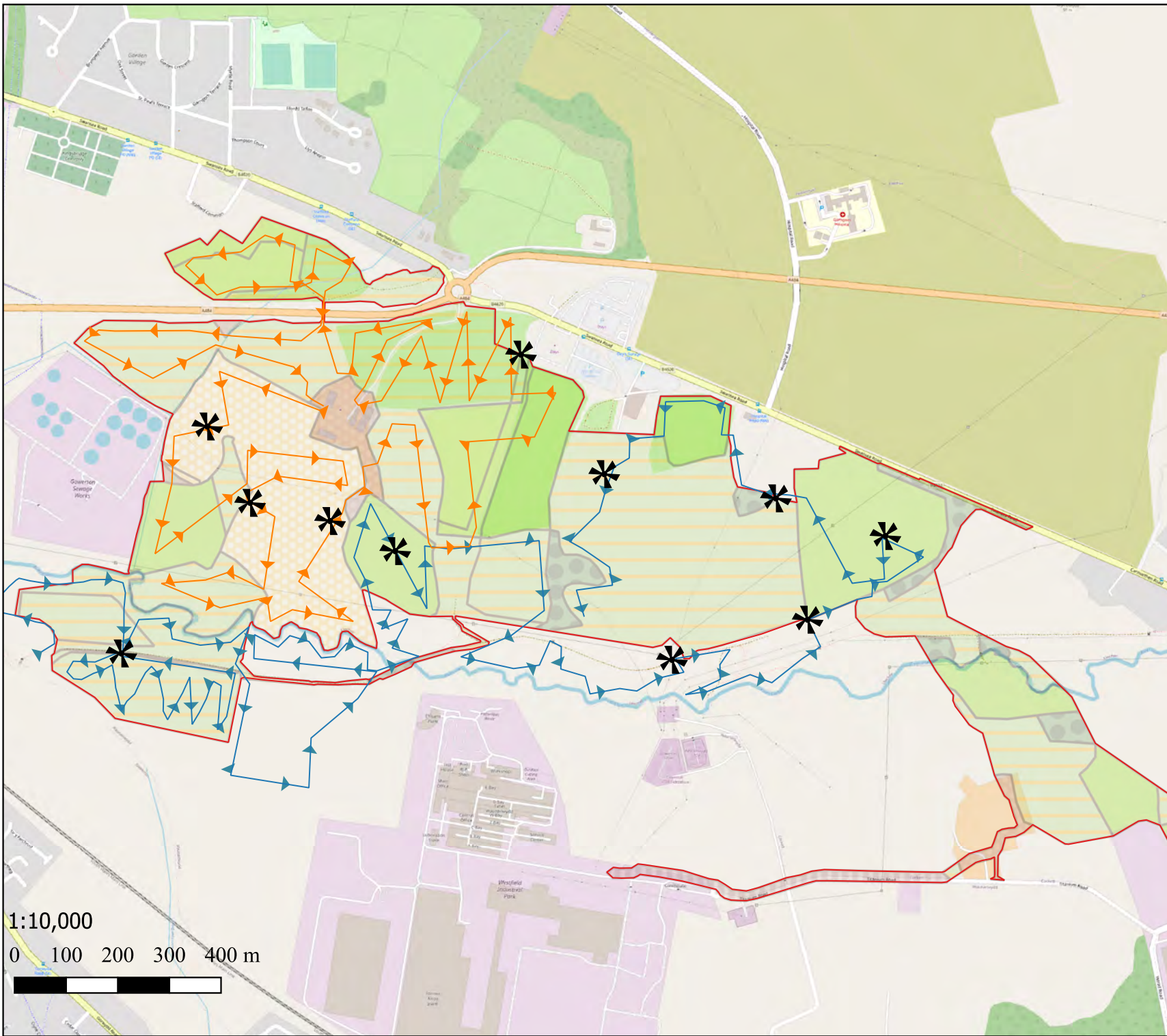


## Map of Field Numbers referenced in Winter Bird Surveys





Please note that field numbers and site boundaries have been superseded

### Legend








- Proposed solar farm installation (superseded)
- SINC -H.1.3.3 Semi natural woodland
- SINC - H9.3.3 Moderately rich purple moor grass and rush pasture



## Legend

-  Vantage points
-  Transect route 1
-  Transect route 2
-  Red line boundary


### Baseline Habitats

-  Other neutral grassland
-  Modified grassland
-  Other woodland broadleaved
-  Mixed scrub
-  Non-cereal crops
-  Developed land, sealed surface
-  Artificial unvegetated unsealed surface

Basemap from open street map

Title: Wintering Bird Survey Transects  
 Client: Taiyo Power & Storage Ltd.  
 Site: Parc Solar Caenewydd  
 Map No: 21/3752.01-09  
 Date September 2023  
 Drawn by: AP      Checked by: LW

1:10,000  
 0 100 200 300 400 m



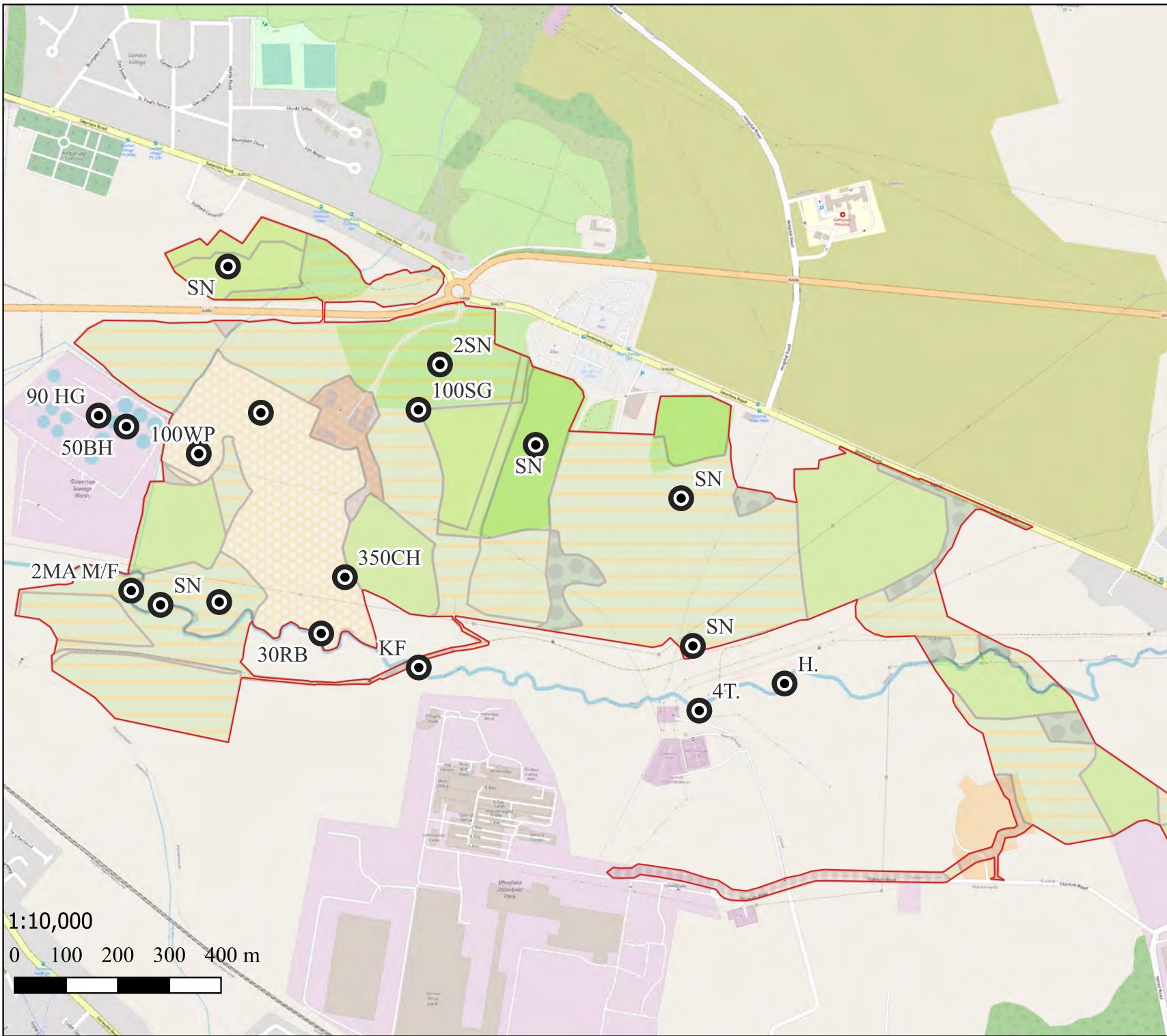
Date	Start time	End time	Temp	Wind	Cloud	Rain	High tide	Low tide	Surveyors	Field no.	Findings	Comments
28/10/2021	08:15	11:50	15C	F4	90	None	11:27	06:22	LW & AP	9 11 14 & 23 15a 16 15b 18 & 19 20 22 23 24 26 27	1 BZ 1 SN 5 MT, 15 RB 100 CH, 1 SN, 2 MA, 1 GS 2 RB, 1 KT 2 SC 2 MG, 2 S. 4 S., 2 SN 10 WP, 5 MP 20 RB 45 WP, 2 MA, 1 SC 5 CH 75 CH/finches, 2 MT, 7 HG, 5 BH	Foraging flock of finches          Flock of 140 HG/BH over Sewage works (off site)
15/11/2021	08:20	11:20	3C	F0	5	None	03:24	10:46	LW & AP	15A 20 21 22 23 24 26 27	1GS, 75CH 2 SN 1 SC 5 MP 4 SC, 12 MP, 20 RB, 100 CH/finch flock 2 ST 2 MP, 2 B., 1 LI & 100 CH/finch flock 100 WP	Finch flocks dominated by CH      Foraging in arable field
14/12/2021	08:20	11:20	11C	F2	100%	Drizzle	09:33	04:29	LW & AP	2B 11 15A 15B 18 & 19 20 23 24 26 27 32	1 BZ 1 SN 50 CH 2 GO 1 SC 1 MP 2 SN 30 RB, 1 WR, 1 SN, 2 MP 1 GS 12 MP 45 WP, 1 BZ, 1 LT, 1 RB, B. 200 CH/finches 25 WP	Flock of geese (CG) flying along river corridor      Flock of 100 HG/BH over Sewage works (off site)












Date	Start time	Temp	Wind	Cloud	Rain		Surveyors	Field no.	Findings	Comments		
26/01/2022	08:30	11:45	6C	F1	10%	None	04:26	12:04	LW & AP	15A 16 20 21 22/23 26 27 32	100 CH, 1 MA 1 KT 1 SN 100 SG 350 CH/finch flock 15 CH, 1 BZ, 28 MP 95 FP 1 SN	On field boundary Finch flocks dominated by CH Foraging in arable field
24/02/2022	08:40	11:45	6C	F1	60%	None	11:24	06:20	LW & AP	15A 18 23 26 27 31	30 CH 1 SN, 1 MP 30 RB 3 RB, 8 MP 80 FP, 100 CH/finch flock 7 SL	Finch flocks dominated by CH
29/03/2022	08:10	11:30	7C	F1	60%	None	08:27	03:46	LW & AP	9 15A 15B 18 & 19 20 23 26 27	4 T. 20 CH 2 SC 2 S. 2 SN 7 HG 1 MG, 60 CH/finch, 2 D., 4 HS 30 FP, 10 CH	Teal at river corridor

**Table 5. Winter Bird Survey data**

Wintering Bird Species List		
Code	Species	Max count
B.	Blackbird	2
BH	Black-headed gull	5
BZ	Buzzard	1
CH	Chaffinch	350
D.	Dunnock	2
FP	Feral pigeon	95
GO	Goldfinch	2
GS	Great spotted woodpecker	1
HG	Herring gull	7
HS	House sparrow	4
JD	Jackdaw	1
LI	Linnet	10
LT	Long-tailed tit	1
MG	Magpie	2
MA	Mallard	4
MP	Meadow pipit	28
MT	Mistle thrush	7
KT	Red kite	1
RE	Redwing	17
RB	Reed bunting	37
R.	Robin	1
S.	Skylark	6
SN	Snipe	3
ST	Song thrush	2
SG	Starling	100
SC	Stonechat	5
T.	Teal	4
WP	Woodpigeon	100
WR	Wren	1



### Legend

-  Bird registrations
-  Red line boundary
- Baseline Habitats**
-  Other neutral grassland
-  Modified grassland
-  Other woodland broadleaved
-  Mixed scrub
-  Non-cereal crops
-  Developed land. sealed surface
-  Artificial unvegetated unsealed surface

Basemap from open street map

Title: Wintering Bird Survey Results  
 Client: Taiyo Power & Storage Ltd.  
 Site: Parc Solar Caenewydd  
 Map No: 21/3752.01-10  
 Date September 2023  
 Drawn by: AP                      Checked by: LW



## Appendix 2 – Designated Sites

Site Name	Designation	Category	Distance from Site Boundary
Burry Inlet	Ramsar	International	1700m
Burry Inlet	SPA	International	1700m
Gower Commons	SAC	International	3300m
Gower Ash Woods	SAC	International	7400m
Camarthen Bay and Estuaries	SPA	International	1700m
Crymlyn Bog	SAC	International	7800m
Crymlyn Bog	Ramsar	International	7800m
Limestone Coast of South West Wales	SAC	International	9800m

### A2.1 Designated Sites within Zone of Influence of the Works

Highlighted lines show designated sites subject to further consideration, for which Site Forms have been provided

# Information Sheet on Ramsar Wetlands (RIS)

*Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8<sup>th</sup> Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9<sup>th</sup> Conference of the Contracting Parties (2005).*

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

---

## 1. Name and address of the compiler of this form:

### Joint Nature Conservation Committee

Monkstone House

City Road

Peterborough

Cambridgeshire PE1 1JY

UK

Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948

Email: [RIS@JNCC.gov.uk](mailto:RIS@JNCC.gov.uk)

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--

Site Reference Number

---

## 2. Date this sheet was completed/updated:

Designated: 14 July 1992

---

## 3. Country:

UK (Wales)

---

## 4. Name of the Ramsar site:

Burry Inlet

---

## 5. Designation of new Ramsar site or update of existing site:

**This RIS is for:** Updated information on an existing Ramsar site

---

## 6. For RIS updates only, changes to the site since its designation or earlier update:

### a) Site boundary and area:

\*\* Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

### b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

**7. Map of site included:**

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* ☐;
- ii) **an electronic format** (e.g. a JPEG or ArcView image) *Yes*
- iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* ☐;

b) **Describe briefly the type of boundary delineation applied:**

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

**8. Geographical coordinates (latitude/longitude):**

51 38 55 N                      04 10 37 W

**9. General location:**

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Swansea

The site is located between the Gower Peninsula and Llanelli in south Wales, approximately 15 km north-west of Swansea.

**Administrative region:** Abertawe/ Swansea; Caerfyrddin/ Carmarthenshire

**10. Elevation** (average and/or max. & min.) (metres):    **11. Area** (hectares): 6627.99

Min.	-2
Max.	6
Mean	1

**12. General overview of the site:**

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes extensive areas of intertidal sand and mud flats, together with large sand dune systems at the mouth of the estuary. The site contains the largest continuous area of saltmarsh in Wales (2,200 ha). The Burry Inlet regularly supports large numbers of wildfowl and waders.

**13. Ramsar Criteria:**

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

**5, 6**

**14. Justification for the application of each Criterion listed in 13 above:**

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 5

**Assemblages of international importance:**

**Species with peak counts in winter:**

41655 waterfowl (5 year peak mean 1998/99-2002/2003)

**Ramsar criterion 6 – species/populations occurring at levels of international importance.**

**Qualifying Species/populations (as identified at designation):**

**Species with peak counts in spring/autumn:**

Common redshank , *Tringa totanus totanus*, 857 individuals, representing an average of 0.7% of the GB population (5 year peak mean 1998/9-2002/3)

**Species with peak counts in winter:**

Northern pintail , *Anas acuta*, NW Europe 2687 individuals, representing an average of 4.4% of the population (5 year peak mean 1998/9-2002/3)

Eurasian oystercatcher , *Haematopus ostralegus ostralegus*, Europe & NW Africa -wintering 14861 individuals, representing an average of 1.4% of the population (5 year peak mean 1998/9-2002/3)

Red knot , *Calidris canutus islandica*, W & Southern Africa 3618 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)

(wintering)

**Species/populations identified subsequent to designation for possible future consideration under criterion 6.**

**Species with peak counts in winter:**

Northern shoveler , *Anas clypeata*, NW & C Europe 467 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See [www.bto.org/survey/webs/webs-alerts-index.htm](http://www.bto.org/survey/webs/webs-alerts-index.htm).

Details of bird species occurring at levels of National importance are given in Section 22

**15. Biogeography** (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

**a) biogeographic region:**

Atlantic

**b) biogeographic regionalisation scheme** (include reference citation):

Council Directive 92/43/EEC

**16. Physical features of the site:**

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	acidic, shingle, sand, mud, clay, nutrient-rich, sedimentary, quartzite, limestone, sandstone, slate/shale, sandstone/mudstone, peat, gravel, pebble, cobble, boulder
----------------	---

Geomorphology and landscape	lowland, coastal, intertidal sediments (including sandflat/mudflat), open coast (including bay), enclosed coast (including embayment), estuary, ria, intertidal rock
Nutrient status	eutrophic
pH	alkaline
Salinity	saline / euhaline
Soil	mainly organic
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Tenby, 1971–2000) ( <a href="http://www.metoffice.com/climate/uk/averages/19712000/sites/tenby.html">www.metoffice.com/climate/uk/averages/19712000/sites/tenby.html</a> ) Max. daily temperature: 13.4° C Min. daily temperature: 7.0° C Days of air frost: 9.5 Rainfall: 1106.5 mm Hrs. of sunshine: 1654.0

**General description of the Physical Features:**

Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes extensive areas of intertidal sand- and mud-flats, together with large sand dune systems at the mouth of the estuary. The site contains the largest continuous area of saltmarsh in Wales (2,200 ha). The estuary experiences wide tidal fluctuations (about 8 m) which has the consequence of exposing a large extent of intertidal sediments on a regular basis. These are mostly sandy, but muddy substrates are to be found in more sheltered areas.

**17. Physical features of the catchment area:**

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes extensive areas of intertidal sand- and mud-flats, together with large sand dune systems at the mouth of the estuary. The site contains the largest continuous area of saltmarsh in Wales (2,200 ha). The estuary experiences wide tidal fluctuations (about 8 m) which has the consequence of exposing a large extent of intertidal sediments on a regular basis. These are mostly sandy, but muddy substrates are to be found in more sheltered areas.

**18. Hydrological values:**

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Shoreline stabilisation and dissipation of erosive forces, Maintenance of water quality (removal of nutrients)

**19. Wetland types:**

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	59.4
H	Salt marshes	30.3
F	Estuarine waters	8
E	Sand / shingle shores (including dune systems)	2.2
D	Rocky shores	0.1



**20. General ecological features:**

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes a mixture of estuarine habitats, river channel, extensive intertidal sand and mud flats, intertidal and rocky shore habitats, and a large sand-dune system at the mouth of the estuary. A range of intertidal communities support populations of important animals like piddocks, and rockpool communities.

The estuary supports typical saltmarsh communities, and is the largest continuous saltmarsh in Wales, supporting nationally scarce plants such as marsh-mallow *Althaea officinalis*.

The river channel and estuarine water is known to support important fish, namely shad and lamprey. Otters use the channel to feed.

The importance of the sand dunes at the western end of the Ramsar site are recognised at a European level through designation as SAC, supporting dune-slack communities where three British Red Data Book plants grow – fen orchid *Liparis loeselii*, dune gentian *Gentianella uliginosa* and early sand-grass *Mibora minima*.

Ecosystem services

**21. Noteworthy flora:**

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Petalwort *Petalophyllum ralfsii* Status: Habitats Directive Annex II feature (S1395), Nationally Scarce

Variiegated horsetail *Equisetum variegatum* Status: Nationally Scarce

Long-stalked orache *Atriplex longipes* Status: Nationally Scarce

One-flowered glasswort *Salicornia pusilla* Status: Nationally Scarce

Marsh-mallow *Althaea officinalis* Status: Nationally Scarce

Hutchinsia *Hornungia petraea* Status: Nationally Scarce

Round-leaved wintergreen *Pyrola rotundifolia* ssp. *maritima* Status: Nationally Scarce

Portland spurge *Euphorbia portlandica* Status: Nationally Scarce

Musk stork's-bill *Erodium moschatum* Status: Nationally Scarce

Dune gentian *Gentianella uliginosa* Status: Red Data Book

White horehound *Marrubium vulgare* Status: Nationally Scarce

Eelgrass *Zostera angustifolia* Status: Nationally Scarce

Sharp rush *Juncus acutus* Status: Nationally Scarce

Early sand-grass *Mibora minima* Status: Red Data Book

Dune fescue *Vulpia fasciculata* Status: Nationally Scarce

Green-flowered helleborine *Epipactis phyllanthes* Status: Nationally Scarce

Fen orchid *Liparis loeselii* Status: Habitats Directive Annex II feature (S1903); Red Data Book species; Wildlife & Countryside Act Schedule 8

**22. Noteworthy fauna:**

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

**Birds****Species currently occurring at levels of national importance:****Species with peak counts in spring/autumn:**

Little egret , <i>Egretta garzetta</i> , West Mediterranean	63 individuals, representing an average of 3.8% of the GB population (5 year peak mean 1998/9-2002/3)
Whimbrel , <i>Numenius phaeopus</i> , Europe/Western Africa	241 individuals, representing an average of 8% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)
Eurasian curlew , <i>Numenius arquata arquata</i> , N. a. <i>arquata</i> Europe (breeding)	2231 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , <i>Tringa nebularia</i> , Europe/W Africa	47 individuals, representing an average of 7.8% of the GB population (5 year peak mean 1998/9-2002/3)
<b>Species with peak counts in winter:</b>	
Dark-bellied brent goose, <i>Branta bernicla bernicla</i> ,	1097 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Common shelduck , <i>Tadorna tadorna</i> , NW Europe	1093 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Grey plover , <i>Pluvialis squatarola</i> , E Atlantic/W Africa -wintering	530 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Dunlin , <i>Calidris alpina alpina</i> , W Siberia/W Europe	6758 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , <i>Tringa erythropus</i> , Europe/W Africa	15 individuals, representing an average of 11% of the GB population (5 year peak mean 1998/9-2002/3)

### Species Information

Polychaete worm <i>Ophelia bicornis</i>	Status: Nationally Rare
Narrow-mouthed whorl snail <i>Vertigo angustior</i>	Status: Habitats Directive Annex II feature (S1014); British Red Data Book
Sea lamprey <i>Petromyzon marinus</i>	Status: Habitats Directive Annex II feature (S1095)
River lamprey <i>Lampetra fluviatilis</i>	Status: Habitats Directive Annex II feature (S1099)
Allis shad <i>Alosa alosa</i>	Status: Habitats Directive Annex II feature (S1102)
Twaite shad <i>Alosa fallax</i>	Status: Habitats Directive Annex II feature (S1103)
Otter <i>Lutra lutra</i>	Status: Habitats Directive Annex II feature (S1355)

### 23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

- Aesthetic
- Archaeological/historical site
- Environmental education/ interpretation
- Fisheries production
- Livestock grazing
- Non-consumptive recreation
- Scientific research
- Sport fishing
- Sport hunting
- Subsistence fishing
- Tourism

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

**24. Land tenure/ownership:**

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	
Local authority, municipality etc.	+	+
National/Crown Estate	+	
Private	+	+
Other	+	+

**25. Current land (including water) use:**

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	+
Recreation	+	+
Current scientific research	+	+
Fishing: commercial	+	
Fishing: recreational/sport	+	
Gathering of shellfish	+	
Bait collection	+	
Rough or shifting grazing	+	
Hunting: recreational/sport	+	
Industry	+	
Sewage treatment/disposal		+
Harbour/port	+	
Flood control	+	

**26. Factors (past, present or potential) adversely affecting the site’s ecological character, including changes in land (including water) use and development projects:**

Explanation of reporting category:

1. Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.
2. Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
Erosion	1	Sea-level rise and/or changes in the frequency of storms, natural sediment transition as a result of the natural breach of the old ‘training wall’ and channel realignment causes changing patterns of sediment deposition and erosion. Studies suggest that overall erosion rates are more or less matched by sediment accretion. Erosion of /loss of <i>Salicornia</i> zone is occurring – loss of this early successional vegetation is changing the overall saltmarsh habitat distribution on the site.	+	+	

For category 2 factors only.  
What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Is the site subject to adverse ecological change? NO

**27. Conservation measures taken:**

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
National Nature Reserve (NNR)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	
Management agreement	+	
Other	+	
Area of Outstanding National Beauty (AONB)	+	+
Special Area of Conservation (SAC)	+	
Management plan in preparation	+	

**b) Describe any other current management practices:**

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

---

**28. Conservation measures proposed but not yet implemented:**

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

---

**29. Current scientific research and facilities:**

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

**Contemporary.**

**Fauna.**

Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Wintering wildfowl and waders are monitored annually on North Shore only, by Wildfowl and Wetlands Trust (Penclacwydd Reserve, Llandelli).

The Catchment Research Group (Cardiff University) annually ring oystercatchers (since 1990). Current research into relationship between oystercatchers and shellfish populations in Burry Inlet ongoing since 2000 (CEFAS 2001; Mercer 2002; McGroarty & West 2001; Stewart 2001; West *et al.* 2001).

**Completed.**

**Flora.**

Sand dune NVC survey by Dargie (1989); saltmarsh vegetation surveyed by Burd (1987), with follow-up saltmarsh NVC survey 1998-99.

Marine.

CCW Phase I Survey of the marine intertidal biotopes of the Burry estuary in 2000 (CCW 2004).

---

**30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:**

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

North shore: Wildfowl and Wetlands Trust have education centre at Penclacwydd, Llanelli with a full-time education officer. School parties form major element of the conservation education programme.

South shore: Guided walks and a bird hide are available at Whiteford NNR.

---

**31. Current recreation and tourism:**

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

**Activities, Facilities provided and Seasonality.**

Principally walking, birdwatching, sport angling and and wildfowling. All these activities are at sustainable levels.

---

**32. Jurisdiction:**

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Countryside Division, Welsh Assembly Government, Cathays Park, Cardiff, CF1 3NQ

---

**33. Management authority:**

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Safeguard Officer, International Designations, Countryside Council for Wales, Maes-y-Ffynnon, Penrhosgarnedd, Bangor, Gwynedd, LL57 2DW

**34. Bibliographical references:**

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

**Site-relevant references**

- Atkins, J (ed.) (1995) *The Burry Inlet & Loughor Estuary Symposium, March 1995. State of the Estuary Report*. Burry Inlet and Loughor Estuary Liaison Group, Swansea
- Barne, JH, Robson, CF, Kaznowska, SS & Doody, JP (eds.) (1995) *Coasts and seas of the United Kingdom. Region 12. Wales: Margam to Little Orme*. Joint Nature Conservation Committee, Peterborough. (Coastal Directories Series.)
- Bratton, JH (ed.) (1991) *British Red Data Books: 3. Invertebrates other than insects*. Joint Nature Conservation Committee, Peterborough
- Bristow, C & Pile, J (2003) South Wales estuaries Carmarthen Bay: evolution of estuarine morphology and consequences for SAC management. *CCW Contract Science*, No. 528
- Buck, AL (ed.) (1993) *An inventory of UK estuaries. Volume 2. South-west Britain*. Joint Nature Conservation Committee, Peterborough
- Burd, F (1989) *The saltmarsh survey of Great Britain. An inventory of British saltmarshes*. Nature Conservancy Council, Peterborough (Research & Survey in Nature Conservation, No. 17)
- CEFAS (2001) The relationship between mussel and oystercatcher populations in the Burry Inlet, Part 1b, Section 3 – a report on the cockle stocks in the Burry Inlet, south Wales, outside the standard CEFAS survey area. *CCW Contract Science*, No. 431
- Countryside Council for Wales (1993) *Welsh estuaries review*. Countryside Council for Wales, Bangor
- Countryside Council for Wales (2004) *Phase 1 Intertidal Survey Dataset*. Countryside Council for Wales, Bangor (unpublished data)
- Davies, J (1998) Chapter 9. Bristol Channel and approaches (Cape Cornwall to Cwm yr Eglwys, Newport Bay) (MNCR Sector 9). In: *Benthic marine ecosystems of Great Britain and the north-east Atlantic*, ed. by K. Hiscock, 255-295. Joint Nature Conservation Committee, Peterborough. (Coasts and Seas of the United Kingdom. MNCR series)
- Fowles, A (1994) *Invertebrates of Wales: a review of important sites and species*. Joint Nature Conservation Committee, Peterborough
- Jones, PS, Stevens, DP, Blackstock, TH, Burrows, CR & Howe, EA (eds.) (2003) *Priority habitats of Wales: a technical guide*. Countryside Council for Wales, Bangor
- Mercer, T (2002) An assessment of the nature conservation value of mussel crumble in the Burry Inlet and the effects of dredging/hand gathering operations. *CCW Contract Science*, No. 526
- McGrorty, S & West AD (2001) The relationship between mussel and oystercatcher populations in the Burry Inlet, Part 1b, Section 4 – a survey of mussel beds and mussel crumble. *CCW Contract Science*, No. 432
- McLeod, CR, Yeo, M, Brown, AE, Burn, AJ, Hopkins, JJ & Way, SF (eds.) (2004) *The Habitats Directive: selection of Special Areas of Conservation in the UK*. 2nd edn. Joint Nature Conservation Committee, Peterborough. [www.jncc.gov.uk/SACselection](http://www.jncc.gov.uk/SACselection)
- Moore, J, Smith, J, Northen, KO & Little, M (1998) *Marine Nature Conservation Review Sector 9. Inlets in the Bristol Channel and approaches: area summaries*. Joint Nature Conservation Committee, Peterborough (Coasts and seas of the United Kingdom. MNCR series)
- Musgrove, AJ, Langston, RHW, Baker, H & Ward, RM (eds.) (2003) *Estuarine waterbirds at low tide. The WeBS Low Tide Counts 1992–93 to 1998–99*. WSG/BTO/WWT/RSPB/JNCC, Thetford (International Wader Studies, No. 16)
- Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. [www.wwt.org.uk/publications/default.asp?PubID=14](http://www.wwt.org.uk/publications/default.asp?PubID=14)
- Prosser, MV & Wallace, HL (1999) Burry Inlet and Loughor Estuary SSSI. NVC survey 1998. *CCW Contract Science Report*, No. 376

- Ratcliffe, DA (ed.) (1977) *A Nature Conservation Review. The selection of biological sites of national importance to nature conservation in Britain*. Cambridge University Press (for the Natural Environment Research Council and the Nature Conservancy Council), Cambridge (2 vols.)
- Stewart, B (2001) The relationship between mussel and oystercatcher populations in the Burry Inlet, Part 1b, Section 2. *CCW Contract Science*, No. **430**
- Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.)  
[www.jncc.gov.uk/UKSPA/default.htm](http://www.jncc.gov.uk/UKSPA/default.htm)
- Weighell, AJ, Donnelly, AP & Calder, K (eds.) (2000) *Directory of the Celtic coasts and seas*. Joint Nature Conservation Committee, Peterborough
- Welsh Assembly Government (2003) *Environmental conditions in the Burry Inlet and Loughor estuary*. Welsh Assembly Government, Cardiff
- West, AD, Goss-Custard, JD, McGrorty, S, Stillman, RA & Durell, SEA Le V dit (2001) The relationship between mussel and oystercatcher populations in the Burry Inlet, Part 2. *CCW Contract Science*, No. **491**
- West, AD & McGrorty, S (2003) *Modelling oystercatchers and their food on the Dee estuary, Traeth Lafan and Burry Inlet SPA to inform target setting and site management – Phase 1*. Countryside Council for Wales, Bangor (Marine Monitoring Project, No. **3**)
- Wiggington, M (1999) *British Red Data Books. 1. Vascular plants*. 3rd edn. Joint Nature Conservation Committee, Peterborough

---

Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**  
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • email: [ramsar@ramsar.org](mailto:ramsar@ramsar.org)

## **STANDARD DATA FORM for sites within the 'UK national site network of European sites'**

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 \(2011/484/EU\)](#).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the [SPA homepage](#) and [SAC homepage](#) on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

<https://jncc.gov.uk/>



## **STANDARD DATA FORM for sites within the 'UK national site network of European sites'**

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 \(2011/484/EU\)](#).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the [SPA homepage](#) and [SAC homepage](#) on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

<https://jncc.gov.uk/>



# NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),  
Proposed Sites for Community Importance (pSCI),  
Sites of Community Importance (SCI) and  
for Special Areas of Conservation (SAC)

SITE UK9015011

SITENAME Burry Inlet

## TABLE OF CONTENTS

- [1. SITE IDENTIFICATION](#)
- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)

## 1. SITE IDENTIFICATION

<b>1.1 Type</b> A	<b>1.2 Site code</b> UK9015011	<a href="#">Back to top</a>
----------------------	-----------------------------------	-----------------------------

### 1.3 Site name

Burry Inlet
-------------

<b>1.4 First Compilation date</b> 1992-07	<b>1.5 Update date</b> 2015-12
--	-----------------------------------

### 1.6 Respondent:

<b>Name/Organisation:</b> Joint Nature Conservation Committee
<b>Address:</b> Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
<b>Email:</b>

### 1.7 Site indication and designation / classification dates

<b>Date site classified as SPA:</b>	1992-07
<b>National legal reference of SPA designation</b>	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, ( <a href="http://www.legislation.gov.uk/uksi/2010/490/contents/made">http://www.legislation.gov.uk/uksi/2010/490/contents/made</a> ) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 ( <a href="http://www.legislation.gov.uk/uksi/2011/625/contents/made">http://www.legislation.gov.uk/uksi/2011/625/contents/made</a> ).

## 2. SITE LOCATION

[Back to top](#)

## 2.1 Site-centre location [decimal degrees]:

**Longitude**  
-4.176944444

**Latitude**  
51.64861111

## 2.2 Area [ha]:

6672.95

## 2.3 Marine area [%]

69.9

## 2.4 Sitelength [km]:

0.0

## 2.5 Administrative region code and name

**NUTS level 2 code**      **Region Name**

UKL1	West Wales and The Valleys
UKL2	East Wales
UKZZ	Extra-Regio

## 2.6 Biogeographical Region(s)

Atlantic (100.0  
%)

## 3. ECOLOGICAL INFORMATION

### 3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

[Back to top](#)

Species			Population in the site							Site assessment				
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D		A B C	
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A054	<a href="#">Anas acuta</a>			w	1900	1900	i		G	B		C	
B	A056	<a href="#">Anas clypeata</a>			w	230	230	i		G	B		C	
B	A052	<a href="#">Anas crecca</a>			w	1000	1000	i		G	C		C	
B	A050	<a href="#">Anas penelope</a>			w	6200	6200	i		G	C		C	
B	A169	<a href="#">Arenaria interpres</a>			w	470	470	i		G	C		C	
B	A672	<a href="#">Calidris alpina alpina</a>			w	8200	8200	i		G	C		C	
B	A143	<a href="#">Calidris canutus</a>			w	4300	4300	i		G	C		C	
B	A130	<a href="#">Haematopus ostralegus</a>			w	16900	16900	i		G	B		C	

B	A160	<a href="#">Numenius arquata</a>			w	1500	1500	i		G	C		C
B	A141	<a href="#">Pluvialis squatarola</a>			w	660	660	i		G	C		C
B	A048	<a href="#">Tadorna tadorna</a>			w	1500	1500	i		G	C		C
B	A162	<a href="#">Tringa totanus</a>			w	1200	1200	i		G	C		C

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

### 3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C R V P	IV	V	A	B	C	D
B	WATR	<a href="#">Waterbird assemblage</a>			34962	34962	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see [reference portal](#))
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories:** IV, V: Annex Species (Habitats Directive), A: National Red List data; B: Endemics; C: International Conventions; D: other reasons

## 4. SITE DESCRIPTION

[Back to top](#)

### 4.1 General site character

Habitat class	% Cover
N17	0.1
N03	32.4

N04	2.3
N02	65.0
N05	0.2
<b>Total Habitat Cover</b>	<b>100</b>

### Other Site Characteristics

1 Terrestrial: Soil & Geology: shingle, quartzite, sandstone, sand, sedimentary, mud, nutrient-rich, acidic, limestone, clay 2 Terrestrial: Geomorphology and landscape: coastal, lowland 3 Marine: Geology: cobble, slate/shale, sedimentary, sand, boulder, gravel, pebble, peat, sandstone/mudstone, clay, shingle 4 Marine: Geomorphology: ria, open coast (including bay), enclosed coast (including embayment), intertidal rock, estuary, intertidal sediments (including sandflat/mudflat)

### 4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: *Anas acuta* (North-western Europe) 3% of the population 5 year peak mean 1991/92-1995/96 *Anas clypeata* (North-western/Central Europe) 3.6% of the population in Great Britain 5 year peak mean 1991/92-1995/96 *Anas crecca* (North-western Europe) 0.3% of the population in Great Britain 5 year peak mean 1991/92-1995/96 *Anas penelope* (Western Siberia/North-western/North-eastern Europe) 0.6% of the population in Great Britain 5 year peak mean 1991/92-1995/96 *Calidris alpina alpina* (Northern Siberia/Europe/Western Africa) 1.2% of the population in Great Britain 5 year peak mean 1991/92-1995/96 *Calidris canutus* (North-eastern Canada/Greenland/Iceland/North-western Europe) 0.6% of the population 5 year peak mean 1991/92-1995/96 *Haematopus ostralegus* (Europe & Northern/Western Africa) 1.6% of the population 5 year peak mean 1991/92-1995/96 *Numenius arquata* (Europe - breeding) 1.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 *Pluvialis squatarola* (Eastern Atlantic - wintering) 0.8% of the population in Great Britain 5 year peak mean 1991/92-1995/96 *Tadorna tadorna* (North-western Europe) 1.3% of the population in Great Britain 5 year peak mean 1991/92-1995/96 *Tringa totanus* (Eastern Atlantic - wintering) 0.3% of the population 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 34962 waterfowl (5 year peak mean 1991/92-1995/96) Including: *Tadorna tadorna*, *Anas penelope*, *Anas crecca*, *Anas acuta*, *Anas clypeata*, *Haematopus ostralegus*, *Pluvialis squatarola*, *Calidris canutus*, *Calidris alpina alpina*, *Numenius arquata*, *Tringa totanus*

### 4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
M	G04		B
M	G01		I
M	F02		I
M	H03		B
L	H04		B
H	M01		B

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
M	G01		I
M	G03		I

### 4.5 Documentation

The Natural Resources Wales weblink below provides access to information on its designated sites. Detailed information about this Natura 2000 site can be accessed via the Management Plan link provided in Section 6.2. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land>  
[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

## 5. SITE PROTECTION STATUS (optional)

[Back to top](#)

### 5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	11.6	UK04	99.9		

## 6. SITE MANAGEMENT

[Back to top](#)

### 6.1 Body(ies) responsible for the site management:

Organisation:	Natural Resources Wales
Address:	
Email:	

### 6.2 Management Plan(s):

An actual management plan does exist:

<input checked="" type="checkbox"/>	Yes	Name: BURRY INLET
		Link: <a href="https://www.naturalresources.wales/media/673515/Carmarthen%20Bay%20R33%20Advice%20February%202009.pdf">https://www.naturalresources.wales/media/673515/Carmarthen%20Bay%20R33%20Advice%20February%202009.pdf</a>
<input type="checkbox"/>	No, but in preparation	
<input type="checkbox"/>	No	

## EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the [official European Union guidelines for the Standard Data Form](#) (also referencing the relevant page number).

### 1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

### 3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards ( <i>Spartinion maritimae</i> )	57
1330	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> )	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Sarcocornetea fruticosi</i> )	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with <i>Empetrum nigrum</i>	57
2150	Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> )	57
2160	Dunes with <i>Hippophya rhamnoides</i>	57
2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> )	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with <i>Juniperus</i> spp.	57
2330	Inland dunes with open <i>Corynephorus</i> and <i>Agrostis</i> grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	57
3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion roburi-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57



### 3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representativity	57
B	Good representativity	57
C	Significant representativity	57
D	Non-significant presence representativity	57

### 3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

### 3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

### 3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

### 3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

### 3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

### 3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

### 3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

### 3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code
-----	--	------------------

#### 4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Scree, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

#### 4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

## 5.1 Designation type codes

<b>CODE</b>	<b>DESCRIPTION</b>	<b>PAGE NO</b>
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67



# NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),  
Proposed Sites for Community Importance (pSCI),  
Sites of Community Importance (SCI) and  
for Special Areas of Conservation (SAC)

SITE UK0020020  
SITENAME Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd

## TABLE OF CONTENTS

- [1. SITE IDENTIFICATION](#)
- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)
- [7. MAP OF THE SITE](#)

## 1. SITE IDENTIFICATION

<b>1.1 Type</b> B	<b>1.2 Site code</b> UK0020020	<a href="#">Back to top</a>
----------------------	-----------------------------------	-----------------------------

### 1.3 Site name

Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd

<b>1.4 First Compilation date</b> 1996-01	<b>1.5 Update date</b> 2015-12
--	-----------------------------------

### 1.6 Respondent:

**Name/Organisation:** Joint Nature Conservation Committee  
**Address:** Joint Nature Conservation Committee Monkstone House City Road Peterborough  
PE1 1JY  
**Email:**

**Date site proposed as SCI:** 1996-01  
**Date site confirmed as SCI:** 2004-12  
**Date site designated as SAC:** 2004-12

**National legal reference of SAC designation:**

Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010  
(<http://www.legislation.gov.uk/uksi/2010/490/contents/made>).

## 2. SITE LOCATION



1330			2709.77	0	G	A		B	A	A
2160			0.0	0	G	D				
8330				0		D				

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

### 3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species			Population in the site							Site assessment				
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D		A B C	
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1102	<a href="#">Alosa alosa</a>			p				P	DD	C	C	C	C
F	1103	<a href="#">Alosa fallax</a>			p				P	DD	A	B	C	A
M	1364	<a href="#">Halichoerus grypus</a>			p				P	DD	D			
F	1099	<a href="#">Lampetra fluviatilis</a>			p				P	DD	C	C	C	C
M	1355	<a href="#">Lutra lutra</a>			p				P	DD	C	B	C	C
F	1095	<a href="#">Petromyzon marinus</a>			p				P	DD	C	C	C	C
M	1304	<a href="#">Rhinolophus ferrumequinum</a>			p				P	DD	D			
M	1303	<a href="#">Rhinolophus hipposideros</a>			p				P	DD	D			

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

## 4. SITE DESCRIPTION



### 4.1 General site character

Habitat class	% Cover
N03	4.1
N01	82.1
N05	0.1
N02	13.7
<b>Total Habitat Cover</b>	<b>99.99999999999999</b>

### Other Site Characteristics

1 Terrestrial: Soil & Geology: clay,mud,sedimentary,alluvium,shingle,sand 2 Terrestrial: Geomorphology and landscape: coastal 3 Marine: Geology: limestone/chalk,shingle,peat,biogenic reef,sand,sedimentary,mud,clay,pebble,boulder,sandstone/mudstone,cobble,gravel,slate/shale 4 Marine: Geomorphology: cliffs,intertidal sediments (including sandflat/mudflat),lagoon,cave/tunnel,estuary,enclosed coast (including embayment),open coast (including bay),subtidal sediments (including sandbank/mudbank),subtidal rock (including rocky reefs),islands,pools,intertidal rock

### 4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which this is considered to be one of the best areas in the United Kingdom. Estuaries for which this is considered to be one of the best areas in the United Kingdom. Mudflats and sandflats not covered by seawater at low tide for which this is considered to be one of the best areas in the United Kingdom. Large shallow inlets and bays for which this is considered to be one of the best areas in the United Kingdom. Salicornia and other annuals colonising mud and sand for which this is considered to be one of the best areas in the United Kingdom. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) for which this is considered to be one of the best areas in the United Kingdom. *Petromyzon marinus* for which the area is considered to support a significant presence. *Lampetra fluviatilis* for which the area is considered to support a significant presence. *Alosa alosa* for which the area is considered to support a significant presence. *Alosa fallax* for which this is considered to be one of the best areas in the United Kingdom. *Lutra lutra* for which the area is considered to support a significant presence.

### 4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
M	I01		B
H	H01		B
M	F06		B
L	H04		B
M	M01		B
M	H03		B
L	H05		I
H	E06		I
M	F01		I
M	D03		I
M	F02		I
H	J02		B
H	A04		I
M	G01		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
M	G01		I

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

#### 4.5 Documentation

The Natural Resources Wales weblink below provides access to information on its designated sites. Detailed information about this Natura 2000 site can be accessed via the Management Plan link provided in Section 6.2. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land>  
[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

### 5. SITE PROTECTION STATUS (optional)

[Back to top](#)

#### 5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	22.1	UK01	1.0	UK00	77.9

### 6. SITE MANAGEMENT

[Back to top](#)

#### 6.1 Body(ies) responsible for the site management:

Organisation:	Natural Resources Wales
Address:	
Email:	

#### 6.2 Management Plan(s):

An actual management plan does exist:

<input checked="" type="checkbox"/>	Yes	Name: CARMARTHEN BAY AND ESTUARIES / BAE CAERFYRDDIN AC ABEROEDD Link: <a href="https://www.naturalresources.wales/media/673515/Carmarthen%20Bay%20R33%20Advice%20February%202009.pdf">https://www.naturalresources.wales/media/673515/Carmarthen%20Bay%20R33%20Advice%20February%202009.pdf</a>
<input type="checkbox"/>	No, but in preparation	
<input type="checkbox"/>	No	

### 7. MAP OF THE SITES

[Back to top](#)

INSPIRE ID:

Map delivered as PDF in electronic format (optional)

Yes  No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

---



## EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the [official European Union guidelines for the Standard Data Form](#) (also referencing the relevant page number).

### 1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

### 3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards ( <i>Spartinion maritimae</i> )	57
1330	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> )	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Sarcocornetea fruticosi</i> )	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with <i>Empetrum nigrum</i>	57
2150	Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> )	57
2160	Dunes with <i>Hippophya rhamnoides</i>	57
2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> )	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with <i>Juniperus</i> spp.	57
2330	Inland dunes with open <i>Corynephorus</i> and <i>Agrostis</i> grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	57
3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion roburi-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

### 3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representativity	57
B	Good representativity	57
C	Significant representativity	57
D	Non-significant presence representativity	57

### 3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

### 3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

### 3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

### 3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

### 3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

### 3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

### 3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

### 3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code
-----	--	------------------

#### 4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Scree, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

#### 4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65



CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

## 5.1 Designation type codes

<b>CODE</b>	<b>DESCRIPTION</b>	<b>PAGE NO</b>
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

## Appendix 3 – Legislation

### Special Areas of Conservation (SACs)

As statutory designated sites, SACs are protected by the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 which maintains protection of European sites. SACs are designated as areas of high conservation importance, which make a significant contribution to conserving habitats and species threatened in Europe as a whole.

Such statutory designated sites are legally protected and the local planning authority and Natural England may strictly control any proposed development works which have the potential to impact upon such sites. It is important to note that development does not need to be actually located within such a designated area to potentially present an adverse impact.

If it cannot be demonstrated that a development will not have a significant effect on a statutory designated site, a further “Appropriate Assessment” may be requested to further consider any perceived impacts in combined consideration with any other proposals.

The Local Planning Authority and Natural England can only agree to the plan or project if:

- It will not ‘*adversely affect the integrity of the site concerned (Article 6 (3)). ‘Integrity’ is defined as the ‘coherence of ecological structure and function, across a site’s whole area, that enables it to sustain the complex of habitats and/or the levels of populations of a species for which it was classified’*;
- There is no alternative solution and there are ‘*imperative reasons of overriding public interest, including those of social or economic nature*’ (Article 6 (3)). In such cases, compensatory measures must be taken to ensure the overall coherence of the Natura 2000 network.

### Ramsar Site

A Ramsar Site is designated to be of international importance for its wetland, under the Ramsar Convention. Ramsar identifies wetlands of international importance, especially those providing waterfowl habitat.

The Convention on Wetlands, known as the Ramsar Convention, is an intergovernmental environmental treaty established in 1971 by UNESCO, and coming into force in 1975. It provides for national action and international cooperation regarding the conservation of wetlands, and wise sustainable use of their resources.

Ramsar sites are recorded on the List of Ramsar wetlands of international importance.