



Viridis 178

Viridis Swansea Capacity Mechanism Development

Ecological Appraisal



November 2015

Amec Foster Wheeler Environment
& Infrastructure UK Limited

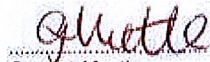
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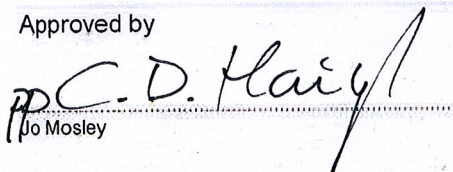
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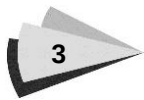
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1. Introduction

1.1 Background and Site Context

Amec Foster Wheeler Environment & Infrastructure UK Ltd, hereafter referred to as Amec Foster Wheeler, was commissioned by Viridis 178 Ltd to carry out an Ecological Appraisal on land at the outskirts of Swansea, off Titanium Road, (National Grid Reference SS606963).

The site, as shown in **Figure 1.1**, is approximately 0.6ha in size and is located within agricultural land. Small energy compounds are present to the east and north of the site, with further industrial land uses to the west and south separated from the site by grazing and arable fields.

1.2 Scheme Description

The proposed development is for a gas-fuelled capacity mechanism embedded power plant, which would comprise a series of gas-powered generators operating on a short term basis to meet peak capacity in the electricity distribution network i.e. they are a supplementary form of power which provide back-up supplies during potential black-out periods or when demand outstrips supply.

Site construction, laying of underground services and preparation of the foundations and slabs for the generators would take roughly three months, with a further three to four months required for the delivery and installation of the generators. These would arrive on a lorry and be craned off into the appropriate location prior to connection to utilities.

The power plant would not be continuously manned, with maintenance visits likely to occur a few times each week. The site would be surrounded by a 2.4m high metal security fence and within this fence would be a 4m high acoustic fenced compound to minimise noise arising from operation of the plant.

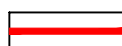
1.3 Purpose of the Report

The purpose of this report is to provide an ecological appraisal of the proposed works.

In accordance with standard good practice (Institute of Environmental Assessment (IEA), 1995 and Institute of Ecology and Environmental Management (IEEM), 2006) the appraisal comprises a desk-based study and field surveys of the site. Section 2 of this report details the desk study and field survey methods whilst Section 3 presents the results of these tasks. Section 4 identifies biodiversity receptors for the appraisal and Section 5 details the environmental measures included within the scheme design. Section 6 presents a summary of the report and any recommendations. A summary of pertinent legislation is provided in **Appendix A**.



Key

 Site location

Green Frog Energy Group
Planning Support



Figure 1.1
Site location

0 km 3 km

Scale 1:50,000 @ A4

2. Methodology

2.1 Desk Study

A data gathering exercise was undertaken to obtain information relating to statutory and non-statutory nature conservation sites and/or records of species¹ that are afforded legal protection or are otherwise notable (see **Boxes 2.1 and 2.2**) within a 1km radius centred on the site. The search area was limited to 1km as it is unlikely that the proposed development would exert ecological impacts across a wider area, based on their small scale both during construction and operation². The following sources of information were consulted:

Multi Agency Geographic Information for the Countryside (MAGIC) at www.magic.gov.uk;

Swansea City and County Council; and

South East Wales Biodiversity Records Centre (SEWBRc).

The contextual information obtained as a result of the desk study is important as it may indicate the presence of, or the potential for, protected and notable species that could occur on the site itself, and indicate potential off-site factors that may influence constraints to development at the site.

Online mapping tools were also used to search for ponds and waterbodies within 500m of the works footprint in order to identify suitable potential great crested newt breeding sites, which are not separated from the site by significant barriers to dispersal, such as major roads or rivers.

¹ Only species records from the past 15 years were requested from consultees to reflect current species populations within the local area.

² The Air Quality Impact Assessment (Amec Foster Wheeler, 2015) supporting the application has assessed ecological receptors based on the Environment Agency's Horizontal Guidance Note H1Annex F which focuses on statutory designated sites within a certain distance from development. The assessment concludes that negligible increases in NO_x critical levels and the critical load of nitrogen and acid deposition at statutory designated sites would occur.

Box 2.1 Designated biodiversity sites, and priority habitats and species

Statutory biodiversity sites

Internationally important sites (collectively referred to in this report as European sites – whilst recognising that Ramsar sites are designated at a global level): Special Area of Conservation (SACs), candidate SACs, Sites of Community Importance (SCIs), Special Protection Areas (SPAs), listed or proposed Ramsar sites, potential SPAs, possible/proposed SACs and sites identified or required as compensatory measures for adverse effects on other European sites

Nationally important sites: Sites of Special Scientific Interest (SSSIs) that are not European sites; also National Nature Reserves (NNRs)

Local Nature Reserves (LNRs) are statutory sites that are of importance for recreation and education as well as biodiversity. Their level of importance is defined by their other statutory or any non-statutory designations (e.g. if an LNR is also an SSSI but is not a European site, it will be of national importance). If an LNR has no other statutory or non-statutory designation it should be treated as being of borough/district-level importance for biodiversity (although it may be of greater socio-economic value).

Non-statutory nature conservation sites

Sites of county importance: Non-statutory nature conservation sites in Swansea are notified as Sites of Importance for Nature Conservation (SINCs).

Priority habitats and species

In this report, the geographic level at which a species/habitat has been identified as a priority for biodiversity conservation is referred to as its level of 'species/habitat importance'. For example, habitats and species of principal importance for the conservation of biological diversity in Wales are identified as of national species/habitat importance reflecting the fact that the importance of these species/habitats has been defined at a national level. The level of importance pertains to the species/habitat as a whole rather than to individual areas of habitat or species populations, which cannot be objectively valued (other than for waterfowl, for which thresholds have been defined for national/international population importance).

- International importance: populations of species or areas of habitat for which European sites are designated;
- International importance: populations of birds meeting the threshold for European importance (1% of the relevant international population).
- National importance: Priority habitats and species of principal importance for the conservation of biological diversity in Wales. These are listed on: <http://www.biodiversitywales.org.uk/49/en-GB/Section-42-Lists>.
- National importance: Species listed as being of conservation concern in the relevant UK Red Data Book (RDB) or the Birds of Conservation Concern Red List³.
- National importance: Nationally Rare and Nationally Scarce species, which are species recorded from, respectively, 1-15 and 16-100 hectads (10x10km squares of the Great Britain national grid).
- National importance: Populations of birds comprising at least 1% of the relevant British breeding/wintering population (where data are available).
- County importance: Habitats and species listed in the Swansea LBAP.

³ Eaton M.A., Brown A.F., Noble D.G., Musgrove A.J., Hearn R., Aebischer N.J. Gibbons D.W., Evans A. and Gregory R.D. (2009). Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* 102, pp296-341.

Box 2.2 Legally protected and controlled species**Legal protection**

Many species of animal and plant receive some degree of legal protection. For the purposes of this ES, legal protection refers to:

- Species included on Schedules 1, 5 and 8 of the *Wildlife and Countryside Act 1981* (as amended), excluding:
 - species that are only protected in relation to their sale (see Section 9[5] and 13[2]), given that the proposed development does not include any proposals relating to the sale of species, and
 - species that are listed on Schedule 1 but that are not likely to breed on or near the site, given that this schedule is only applicable whilst birds are breeding;
- Species included on Schedules 2 and 5 of the *Habitats Regulations 2010* (as amended);
- Badgers, which are protected under the *Protection of Badgers Act 1992*; and
- Hedgerows, some of which are protected under *The Hedgerow Regulations 1997*.

Legal control

Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) lists species of animal that it is an offence to release or allow to escape into the wild and species of plant that it is an offence to plant or otherwise cause to grow in the wild.

2.2 Extended Phase 1 Habitat Survey

An Extended Phase 1 Habitat Survey was carried out by Amec Foster Wheeler ecologist Gemma Mantle in April 2015. During this survey, distinct habitats were identified and mapped and any features of biodiversity interest were subject to a more detailed description in a target note, if required. As the standard Phase 1 Habitat Survey methodology⁴ is, in the main, concerned only with vegetation communities, the survey was extended⁵ to allow for the provision of information on other important ecological features, particularly to identify the presence/potential presence of legally protected species, such as bats, badgers and reptiles.

⁴ Joint Nature Conservation Committee (1993) Handbook for Phase 1 Habitat Survey. JNCC, Peterborough.

⁵ Institute of Environmental Assessment (1995) Guidelines for Baseline Ecological Assessment. E&FN Spon, London.

3. Results

3.1 Desk Study

Designated sites

There are no statutory designated sites within 1km of the site.

One non-statutory designated site of local importance is present adjacent to the proposed development with a further five SINC's present within 1km of the site. These are detailed in **Table 3.1** and the location of the SINC's relative to the site is shown in a reproduction of the plan provided by Swansea City Council in **Appendix B**.

Table 3.1 Non-statutory designated sites

Site name	Central OS grid reference	Distance from site	Reason for designation
Penyfodau Fawr to Llewitha SINC	SS609964	Adjacent	A large site (73ha) supporting a wide range of predominantly wetland habitats including fen, rush pasture and wet woodland, with species-rich meadows and scrub also present. A number of notable bird and invertebrate species occur including kingfisher, bullfinch, cinnabar and beautiful demoiselle.
Main Swansea – Fishguard Railway Line	SS666:960	250m South	This linear site comprises small pockets of semi-natural habitat adjacent to the mainline railway, including deciduous woodland, scrub, species-rich meadow, rush pasture and heathland.
Mynydd Back-Y-Glo	SS612956	550m South	The site comprises a mosaic of species-rich rush pasture, fen, scrub, bracken and woodland supporting notable bird species such as song thrush, bullfinch, house sparrow and reed bunting.
Alcoa Wet Meadows	SS596963	650m East	The SINC supports predominantly a mosaic of marshy grassland and wet woodland with species-rich scrub and meadows also present. These habitats support a number of notable bird and invertebrate species including song thrush, woodcock and white ermine.
Mynydd Gamgoch Common	SS610973	700m North	This large SINC (125ha) supports a complex mosaic of rush pasture, wet and dry heath, fen, reedbed, species-rich grassland, bracken and scrub and deciduous woodland.
Gowerton Mart Woods	SS596960	900m South-west	The SINC supports approximately 8ha of wet woodland providing habitat to notable bird species such as marsh tit and song thrush.

Table notes use Body Small text style

Legally protected and notable species

A wide range of protected and notable species have been recorded within 1km of the development site as anecdotal records or via formal survey, although SEWBRc returned no records from the site itself. These records have been reviewed and those pertinent to the site location and/or the works proposed are summarised in **Table 3.2**.

Table 3.2 Summary of pertinent protected and notable species records

Species/ Species group	Protected		Priority	Description of records held
	European	National		
Bats	✓	✓	✓	Four records around 800m to the south of the site, with common and soprano pipistrelle and noctule present. Lesser horseshoe bat has been recorded roosting over 2km from the site.
Notable birds		✓	✓	A total of 12 species have been recorded (including waders, and passerines), including one which is listed on Schedule 1 of the Wildlife and Countryside Act (barn owl, two records 800m south of the site).
Otter	✓	✓	✓	Two records, one of which is 750m south east of the site on an unnamed watercourse and the second 1km to the west of the site on the Afon Llan
Reptiles		✓	✓	A total of 14 combined records of common lizard and grass snake from locations 700m-900m south of the site.

There are also records of invasive species listed on Schedule 9 of the Wildlife and Countryside Act within 1km of the site. These comprise 14 records of Japanese knotweed and one record each of Himalayan cotoneaster, rhododendron and three-cornered garlic, with the closest record of Japanese knotweed approximately 700m to the south of the site.

Ponds

Six ponds were identified within 500m of the site from the Ordnance Survey (OS) basemapping. These are detailed in **Table 3.3**.

Table 3.3 Pond descriptions

Pond Number	Grid Ref	Distance from site	Description
1	SS605962	120m	Moderate sized, man-made pond approximately 20m by 10m in size, likely to be deep and with an island in the centre. The pond is surrounded by marshy grassland with rushes around the margin. Pondweeds are frequent and cover approximately 50% of the surface water. The Habitat Suitability Index (HSI) ⁶ for this pond has been calculated at 0.71 (good).
2	SS607963	120m	Small on-line waterbody, little more than a widening of the ditch, and dry at the time of survey.
3	SS607963	100m	Dry and does not appear to regularly hold water.
4	SS607964	100m	Dry and does not appear to regularly hold water.

⁶ Based on the method described in the ARG UK Advice Note 5 (2010).

Pond Number	Grid Ref	Distance from site	Description
5	SS603964	235m	Not accessed.
6	SS602965	330m	Not accessed. OS basemap labels as reservoir and therefore unlikely to be suitable for great crested newts.

Of the ponds identified three were found to be dry and Pond 6 is unlikely to be suitable for great crested newts. Whilst Pond 5 may provide suitable habitat for newts, given the distance (towards the upper end of distances generally travelled by great crested newts⁷) and good terrestrial habitat between the pond and the site (woodland and rough grassland), it is unlikely, even if present, newts would travel to the site, which provides limited habitat for newts and would at most be used transitionally. On the same basis, although Pond 1 provides good habitat for great crested newts, it is surrounded by very good terrestrial habitat and refugia/hibernacula (within the marshy grassland and hedgerow boundaries), therefore it is unlikely, even if present, that newts would occur within the site.

3.2 Extended Phase 1 Habitat Survey

Habitats

The results of the Phase 1 habitat survey are illustrated in **Figure 3.1**.

Onsite habitats

The red line boundary is located wholly within an agricultural field that is currently in silage production and is dominated by perennial rye-grass. There is limited species diversity within the sward, restricted to white clover, nettle, creeping buttercup and broad-leaved dock mainly around the field margins.

The remainder of the field, outside of the site boundary, is also perennial rye-grass dominated and species-poor. The field boundaries, also outside of the red line boundary, comprise defunct hedgerows with mature trees and support species including ash, pedunculate oak, hazel, European gorse and blackthorn with occasional bluebell in the ground flora.

Offsite habitats

The access route to the proposed development area utilises an existing track, which to the east of the site passes between two small areas of dense scrub surrounded by mature broad-leaved trees. The scrub is dominated by bramble, whilst a range of tree species occur, including beech, sycamore and downy birch. To the north of the track is a large spoil/rubble mound which has been colonised with poor semi-improved grassland and ruderal species with scattered buddleia. The ground flora in these areas is generally species-poor with common dog-violet, lesser celandine, cock's-foot and broad-leaved dock.

To the north of the redline boundary (between the site and the WPD compound) is a depression supporting poor semi-improved grassland, with patches of more diverse semi-improved damp grassland, and scrub associated with a dry ditch. Scrub species include blackthorn, hawthorn, downy birch and goat willow, with the grassland supporting soft rush, meadow foxtail, cuckooflower, water mint and spear thistle. There was evidence of cattle grazing in this area.

To the south of the site beyond the arable field are cattle-grazed fields supporting marshy grassland.

All of the off-site habitats described above are located within Penyfodau Fawr to Llewitha SINC.

⁷ English Nature Research Reports (Number 576): An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus* (2004).

Species

Nesting birds

The site currently provides unsuitable habitat for either tree/shrub or ground nesting birds due to the lack of habitat present. However, once the silage crop is removed and/or replaced with an alternative agricultural crop or use, the potential for ground nesting birds may arise. Given the size of the site and likely potential future habitat, only small numbers of common species are would be likely to breed.

Bats

There is no suitable bat roosting habitat within the site and it provides very limited foraging opportunities. It is also very unlikely to form part of an important commuting route due to the absence of linear features.

The mature trees located adjacent to the access route and in the field boundaries have potential to support roosts due to their age and presence of suitable features such as natural cracks and crevices.

Reptiles

The site does not provide suitable habitat for reptiles.

However, suitable reptile habitat does occur immediately adjacent to the site in areas of scrub and grassland to the north of the redline boundary and along the access route. These areas provide refugia/hibernacula (particularly the spoil/rubble mound and hedgerow bases) and south-facing banks for basking. Given the habitats present, it is possible common reptile species, i.e. grass snake, common lizard and slow-worm, may occur adjacent to the site.

Great crested newts

As described above, due to the distance between the site and the identified ponds, the suitable terrestrial habitats around the ponds and the low quality habitat within the site, there is negligible potential for great crested newts to occur within the red line boundary.

Otter

The site provides no suitable habitat for otter and the Afon Llan is approximately 70m to the north. Whilst the areas of dense scrub adjacent to the site provide potentially suitable habitat for resting otters, they are unlikely to be used frequently due to disturbance from farming and maintenance of the existing compounds.



4. Identification of Biodiversity Receptors

4.1 Methodology

The starting point for the assessment was to undertake a scoping exercise, using the baseline data that were collected through the desk study and field surveys, to subdivide the recorded biodiversity receptors (i.e. designated sites, together with species populations and habitats) into:

- ▶ Those that could be significantly affected by the proposed development or for which the development could result in the contravention of relevant legislation, and that therefore required more detailed assessment; and
- ▶ Those that were assessed as not being likely either to be significantly affected or for relevant legislation to be contravened, and that did not therefore require further assessment (i.e. that were 'scoped out' of the assessment).

The first stage of the approach that was used for differentiating these receptors involved determining:

- ▶ which, if any, of the species that have been recorded are legally protected or controlled (see **Box 2.2**); and/or
- ▶ Which, if any, sites, areas of habitat and species that have been recorded are of importance for biodiversity conservation, notwithstanding any legal protection that they may have (see **Box 2.1**).

For sites/habitats/species that are important for biodiversity conservation, the next stage of the scoping assessment was to determine whether the identified receptors are likely to be of sufficient 'biodiversity conservation value' that an effect upon them could be significant. In this context:

- ▶ Biodiversity conservation value relates to the quality and/or size of sites or habitats, or the size of species populations (see **Box 4.1**); and
- ▶ Potential significance means that the effect could be of sufficient concern, or for positive effects, of such substantial benefit, that it could influence the decision about whether or not planning permission should be granted.

Box 4.1. Value and importance for biodiversity conservation

The distinction between importance and value can be illustrated by common species such as the house sparrow. This species is important at a national level because it is a priority species (Section 42, NERC Act 2006). However, a small population that could be affected by a development would often be assessed as being of insufficient value for an effect (whether adverse or beneficial) to be of potential significance. On this basis it would not need to be assessed further (i.e. it would be 'scoped out' of the assessment).

Receptors that are of sufficient value that an effect upon them would have the potential to be significant, together with all relevant legally protected species, were then taken through to the next stage of the scoping assessment.

This involved:

- ▶ Identifying, for each receptor, any environmental changes that are likely to be caused by the proposed development, which have the potential to lead to a significant effect and/or to contravene relevant legislation;
- ▶ For these environmental changes, determining the area within which each change could cause a likely significant effect on each relevant receptor and/or could contravene relevant legislation (i.e. an 'ecological zone of influence');
- ▶ Comparing the area where the receptor occurs with the ecological zone of influence, recognising that the receptor may be wholly or partly associated with an area located outside of

the site of the proposed development (e.g. where a species breeds off site but its foraging area includes the site or off-site areas that would be affected by the proposed development); and

- ▶ If the receptor occurs or is likely to occur within the zone of influence, concluding that
- ▶ Either the receptor could be subject to a significant effect and/or the relevant legislation could be contravened - with the result that the receptor has been taken forward in the assessment;
- ▶ Or, if the environmental changes that could affect the receptor are insufficient for there to be a likely significant effect (allowing for cumulative effects), the receptor has been scoped out of the assessment.

4.2 Biodiversity Receptors

Using the approach described above led to the identification of the biodiversity receptors that are listed in **Table 4.1**, together with the rationale for their inclusion within the assessment. This rationale includes:

- ▶ The relevant category of value in relation to the above criteria i.e. biodiversity conservation value, or legal status⁸;
- ▶ The justification for their inclusion in the relevant category/ categories - for biodiversity conservation value this is derived from **Box 2.1** (with the relevant level of importance, as defined in **Box 2.1**, also being included), and for legal status it is derived from **Box 2.2**; and
- ▶ The pathway by which an effect could occur (e.g. habitat loss, lighting, noise etc.).

Table 4.1 Biodiversity receptors potentially affected by the scheme

Biodiversity Receptor	Category of Value	Level of Importance	Effect Pathway
Penyfodau Fawr to Llewitha SINC	Biodiversity importance	County	Potential for indirect effects on habitats within the SINC as a result of deposition or pollution incidents during construction and operation.
Breeding birds	Legal protection	All birds receive UK protection while breeding and certain species are protected by special penalties at all times.	Low potential for destruction of active nests during construction (dependant on habitat present at the time of site preparation).
Bats	Legal protection	European protected species	Increased lighting during construction (if required) may have a detrimental effect on commuting and foraging bats using boundary features outside the site.

All other biodiversity receptors, including the remaining non-statutory designated sites within 1km of the development, have been scoped out of the assessment, either because the population or area likely to be affected by the development is of insufficient size to be of biodiversity value or because no potential impact pathway between the development and these receptors has been identified.

⁸ Legal status is used in this report to refer to legally protected and controlled species.

5. Environmental measures and residual effects

5.1 Environmental measures

Potential effects on the biodiversity receptors identified in Section 4 would be avoided and/or reduced through the inclusion of environmental measures within the scheme design and construction phase. These are described in **Table 5.1** with an explanation of how the measure would change the effect pathway.

Table 5.1 Environmental measures

Ref.	Measure	Receptor targeted	How effects on biodiversity are minimised or provide enhancement
Scheme design			
1	Proposed development located on agricultural land	All	The development has been located outside of designated sites and in an area of agricultural land of very low biodiversity value, thereby reducing the potential for adverse effects on protected and notable habitats and species.
Construction method			
2	Sensitive construction methods	All	Prior to commencement of works a tool box talk would be provided by a suitably qualified ecologist. This would highlight the best practice measures that should be implemented and the procedure should protected species be found during the course of the construction works.
3	Vegetation clearance would be programmed to occur outside of the breeding bird season (which is March to August inclusive) if required	Breeding birds	Based on the vegetation currently present at the site, the likelihood of active nests being present is very low and no restriction on vegetation clearance would be necessary. However, if site establishment commences between March and August and the field is in a different agricultural use (e.g. in future years), the potential for active nests should be reassessed. If a risk to breeding birds is identified, a further survey to determine whether any active nests are present will be required and any works must be supervised by a suitably qualified ecologist. Should active nests be present, it is likely that works will be restricted until dependent young have fledged.
4	Construction to occur only during daylight hours	Bats	Restricting works to daylight hours reduces the requirement for site lighting and minimises effects on light sensitive species such as bats. If work or security lighting is required during the hours of darkness, guidance within the publication <i>Artificial lighting and wildlife - Interim Guidance: Recommendations to help minimise the impact of artificial lighting</i> provided by the Bat Conservation Trust (BCT, 2014) should be adopted.
6	Implementation of EA Pollution Prevention Guidelines (PPGs) and dust suppression methods during construction	All	Adoption of best practice working methods will minimise the risk of pollution events occurring and dust deposition on adjacent designated habitats.

5.2 Residual effects

No residual effects on biodiversity receptors have been identified.

6. Summary and Recommendations

6.1 Summary

The site comprises a species-poor agricultural field in silage production with very limited potential to support protected or notable species and is of very low biodiversity value. Adjacent habitats are more species-diverse and comprise marshy grassland, scrub, woodland and hedgerows with potential to support reptiles and bats, and which form part of Penyfodau Fawr to Llewitha SINC. Further SINCS occur within 1km of the proposed development and all of have been designated for habitat mosaics of rush pasture, scrub, woodland and meadows.

Potential effect pathways have been identified in relation to Penyfodau Fawr to Llewitha SINC, bats and reptiles. However, potentially negative effects on these biodiversity receptors would be avoided and/or minimised through the adoption of various environmental measures, which seek to minimise the working footprint and disturbance arising from construction. These measures will also ensure legal compliance.

6.2 Recommendations

In order to ensure that effects on biodiversity are minimised the environmental measures detailed in **Table 5.1** should be adhered to. If this is not possible an ecologist should be consulted to assess the effect of any changes on biodiversity.

As per **Table 5.1** it is recommended that contractors are provided with an ecological toolbox talk prior to commencement.

Appendix A

Legislation

Birds

With certain exceptions⁹, all wild birds, their nests and eggs are protected by section 1 of the Wildlife and Countryside Act 1981 (as amended). Therefore, it is an offence, inter alia, to:

- ▶ Intentionally kill, injure or take any wild bird;
Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- ▶ Intentionally take or destroy the egg of any wild bird.

These offences do not apply to hunting of birds listed in Schedule 2 of the Act subject to various controls.

Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

- ▶ Intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or
- ▶ Intentionally or recklessly disturb the dependent young of any such bird.
- ▶ For golden eagle, white-tailed eagle and osprey, it is also an offence to:
- ▶ Take, damage or destroy the nest of these species (this applies at any time, not only when the nest is in use or being built).

Bats (*Rhinolophidae* and *Vespertilionidae*)

All British bat species are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended). They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence, inter alia, to:

- ▶ Deliberately capture, injure or kill a bat;
- ▶ Deliberately disturb a bat (this applies anywhere, not just at its roost), in particular in such a way as to be likely to:
 - ▶ Impair their ability to survive, breed or reproduce, or rear or nurture their young;
 - ▶ Impair their ability to hibernate or migrate.
 - ▶ Affect significantly the local distribution or abundance of that bat species;
- ▶ Damage or destroy a breeding site or resting place of any bat;
- ▶ Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection; or
- ▶ Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not).

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

- ▶ Greater horseshoe bat (*Rhinolophus ferrumequinum*)
- ▶ Lesser horseshoe bat

⁹ Some species, such as game birds, are exempt in certain circumstances.

- ▶ Bechstein's bat (*Myotis bechsteinii*)
- ▶ Barbastelle (*Barbastella barbastellus*)
- ▶ Greater mouse-eared bat (*Myotis myotis*)

In certain circumstances where these species are found the Directive requires the designation of Special Areas of Conservation (SACs) by EC member states to ensure that their populations are maintained at a favourable conservation status. Outside SACs, the level of legal protection that these species receive is the same as for other bat species.

Reptiles

The four widespread¹⁰ species of reptile that are native to Britain, namely common or viviparous lizard, slow worm (*Anguis fragilis*), adder (*Vipera berus*) and grass snake (*Natrix natrix*), are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are afforded limited protection under Section 9 of this Act. This makes it an offence, inter alia, to:

- ▶ Intentionally kill or injure any of these species.

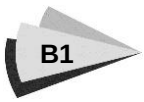
Great crested newt (*Triturus cristatus*)

The great crested newt is listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended). It is afforded protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence, inter alia, to:

- ▶ Deliberately capture, injure or kill any such newt;
- ▶ Deliberately disturb any such newt, in particular in such a way as to be likely to:
 - ▶ Impair their ability to survive, breed or reproduce, or rear or nurture their young;
 - ▶ Impair their ability to hibernate or migrate.
 - ▶ Affect significantly the local distribution or abundance of that species;
- ▶ Deliberately take or destroy the eggs of such a newt;
- ▶ Damage or destroy a breeding site or resting place of any such newt;
- ▶ Intentionally or recklessly disturb any such newt while it is occupying a structure or place that it uses for shelter or protection; or
- ▶ Intentionally or recklessly obstruct access to any place that any such newt uses for shelter or protection.

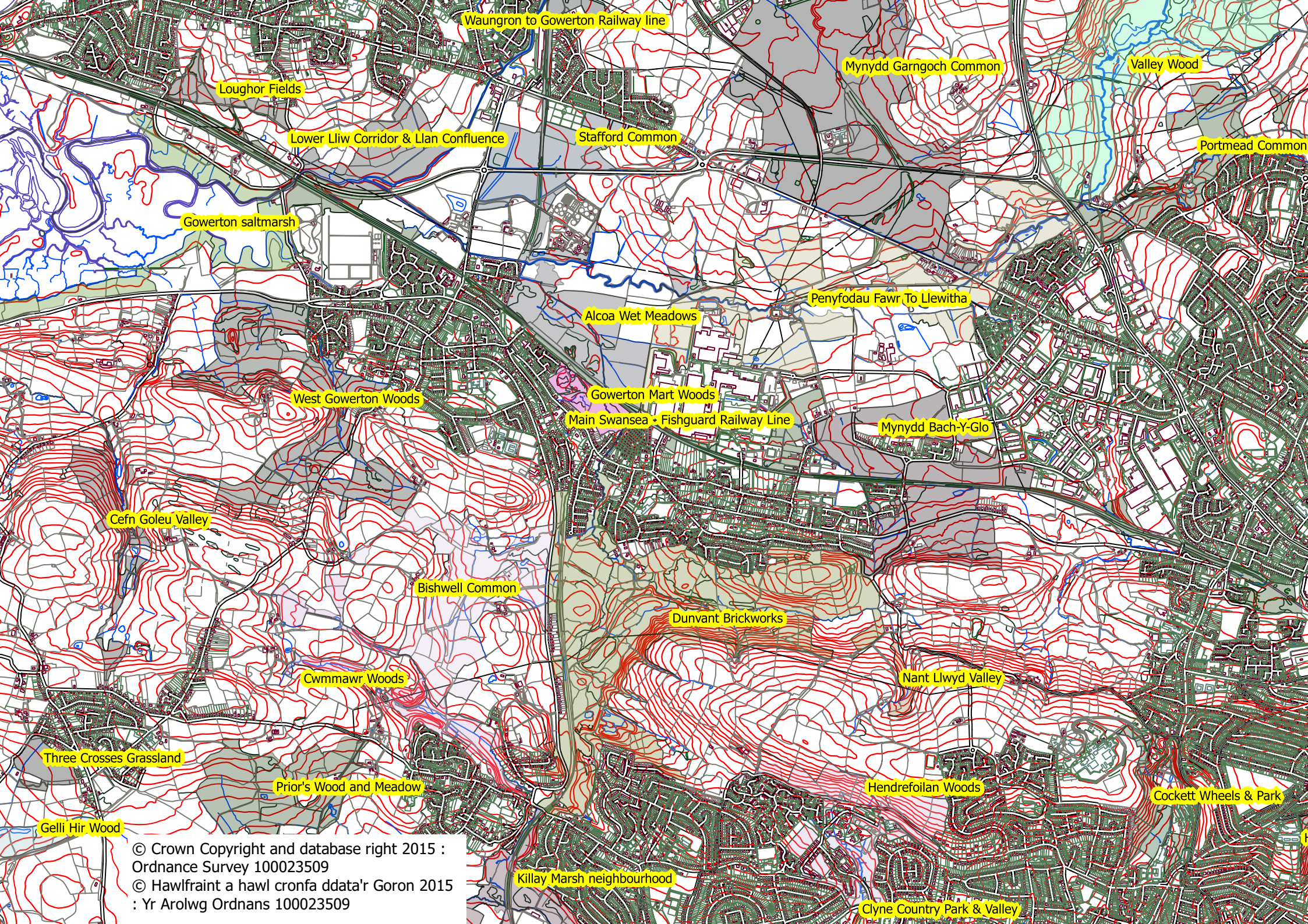
This relates to both the aquatic and terrestrial habitat they occupy. The legislation applies to all life stages of this species.

¹⁰ The other native species of British reptile (sand lizard and smooth snake) receive a higher level of protection in England and Wales under the *Conservation of Habitats and Species Regulations 2010* and the *Wildlife and Countryside Act 1981* (as amended). However, the distribution of these species is restricted to only a very few sites. All marine turtles (*Cheloniidae* and *Dermochelyidae*) are also protected.



Appendix B

Location of SINCs



Waungron to Gowerton Railway line

Mynydd Garngoch Common

Valley Wood

Loughor Fields

Lower Lliw Corridor & Llan Confluence

Stafford Common

Portmead Common

Gowerton saltmarsh

Penyfodau Fawr To Llewitha

Alcoa Wet Meadows

West Gowerton Woods

Gowerton Mart Woods

Main Swansea - Fishguard Railway Line

Mynydd Bach-Y-Glo

Cefn Goleu Valley

Bishwell Common

Dunvant Brickworks

Nant Llwyd Valley

Cwmmawr Woods

Three Crosses Grassland

Prior's Wood and Meadow

Hendrefoilan Woods

Cockett Wheels & Park

Gelli Hir Wood

Killay Marsh neighbourhood

Clyne Country Park & Valley

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