

PRELIMINARY ECOLOGICAL APPRAISAL

HMS CAMBRIA, CARDIFF BAY

ASSOCIATED BRITISH PORTS

WWE16124.PEA.2 | JANUARY 2017

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Report title:	Preliminary Ecological Appraisal
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Grid Reference:	ST 19927 74566
Survey date(s):	15 th August 2016
Surveyed by:	Dr Alex Pollard MCIEEM MRSB
Architect/Agent:	Liam Hopkins, The Urbanists; Simon Williams, Gleeds
Planning reference:	n/a

VERSIONING AND QUALITY ASSURANCE

Issue	Status	Date	Author(s)	Reviewed by	Approved by
1	Draft	24/08/2016	A Pollard, Ecologist	Bob Firmin MCIEEM Senior Ecologist	
	Final				
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The evidence which we have prepared and provided is true, and has been prepared and provided in accordance with the guidance of The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Purpose	• A preliminary ecological appraisal (PEA) was undertaken at a site off Tyneside Road, Cardiff Bay, in order to inform a planning application for a new facility for HMS Cambria, comprising of a new building, parking area and associated access.
Methodology	 The methodology used for the PEA consisted of a desk study - sources consulted were SEWBReC (South East Wales Biodiversity Records Centre) and MAGIC (Multi-Agency Geographic Information for the Countryside), and; field survey - following the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2013) guidelines and standard Phase 1 Habitat Survey protocol (JNCC, 2010).
Key issues	• Disturbance and loss of habitats that could be used by bats, nesting birds, and otter.
Key is	• Possible indirect impacts on the Severn Estuary SPA/SAC/Ramsar/SSSI via adjacent docks.
suc	• No construction materials (including silt, chemicals, and fuel) must be allowed to enter the docks, with a silt barrier installed along the northern and eastern boundaries of the Site to minimise this. This barrier must be maintained for the duration of construction works.
	• The local planning authority may wish to consider undertaking a Habitats Regulations Assessment (HRA) due the proximity of the Site to the Severn Estuary. With the mitigation measures recommended, it is likely however, that there will be negligible impacts upon its designated features.
Recommendations	• The potential impacts of lighting during and post-development on bats must be considered. The lighting of all areas of the Site both during and post-development must be designed to avoid any impacts on bats or otter.
Reco	• Vegetation clearance must only take place outside of the bird breeding season (i.e. within the period September to February inclusive).
	• If any trenches are left exposed overnight during the course of the works, there must be a means of escape for animals. This will comprise a shallow sloped edge or board (of at least 30cm width) set at an angle of no more than 30°.
	• Recommendations for enhancement are provided within this document.
suc	• The full ecological impacts of the proposed development have been assessed following the PEA survey.
Conclusions	No further surveys are recommended.
Con	• Works must be carried out following the recommendations in this report and at the correct time of year.

SUMMARY

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1.0 INTRODUCTION

1.1 Wildwood Ecology Ltd was commissioned by Associated British Ports (the Client) to undertake a preliminary ecological appraisal (PEA) on land off Tyneside Road, Cardiff Bay, centred at grid reference ST 19927 74566 (the Site).

Site description

1.2 The Site is part of the Cardiff docks area, with shipping canals in proximity. The land block on which the Site is located is an island, with Roath Basin, Roath Dock and Queen Alexandra Dock surrounding it. Within the wider area surrounding the Site are relatively recent residential, business and leisure developments.



Figure 1 - Aerial image of the site. © Google Earth 2017, imagery dated 16/08/2016

Proposed project

1.3 The PEA is required to inform the development of a new facility incorporating a new building and parking areas.

Purpose of this report

- 1.4 This report aims to provide sufficient information for the local planning authority to fully assess the potential ecological impacts of the proposed *Development*, or alternatively, to identify what further information is required to fully inform the scheme.
- 1.5 The outcome of the surveys has been used to inform and specify whether further surveys are required, or to establish the need for, and extent of, any mitigation or compensation measures required as part of the proposed works.

2.0 METHODOLOGY

<u>Desk study</u>

2.1 A biodiversity desk study was undertaken in relation to the site in August 2016. The sources consulted and the type of information obtained are summarised below.

Table 1 - sources of biodiversity and ecological records

Source	Information requested	
	(search buffer from site centre/boundary)	
South East Wales Biodiversity Records Centre	 Protected and priority species 	(1km)
(SEWBReC)	 Sites of local importance/designation 	(1km)
Multi-Agency Geographic Information for the	 International statutory designations 	(2km)
Countryside (MAGIC) ¹	 National statutory designations 	(2km)

- 2.2 The search buffers are considered to be sufficient to cover the potential zone of influence of the proposed development. The relevance of the reasons for the designation of protected habitats has been considered during subsequent analysis into whether the proposed development will have any impacts upon the biological integrity of such sites.
- 2.3 No previous survey information was available for the site itself.

Field survey

2.4 The survey was undertaken by Dr Alex Pollard MCIEEM (see Table 2) on 15th August 2016, following the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2013) guidelines and standard Phase 1 Habitat Survey protocol (JNCC, 2010).

Surveyor	NRW bat licence	Ecological experience
Alex Pollard Ph.D., B.Sc. (Hons.), MCIEEM Ecologist	Y	Alex holds her PhD on avian behaviour, is highly experienced in undertaking ornithological surveys, proficient in botanical classification to NVC level.

Table 2 - surveyor information

- 2.5 All habitats within and immediately adjacent to the Site were classified and mapped. All habitats with the potential to support rare, protected, or otherwise notable species of flora or fauna (together with any direct signs) were noted. A habitat map was drawn up incorporating target notes used to highlight features of particular ecological interest.
- 2.6 Plant species included in Schedule 9 of the Wildlife and Countryside Act (1981), as amended, were searched for during the survey. Examples of plants that appear in the schedule include invasive species such as Japanese knotweed (*Fallopia japonica*) and giant hogweed (*Heracleum mantegazzianum*). It is an offence under the Act to spread or cause the spread of these species. The presence of other highly invasive plant species, such as Himalayan balsam (*Impatiens glandulifera*), was also investigated during the survey.
- 2.7 Habitats and features with potential to support protected and/or notable conservation priority species of fauna, plus any associated field signs, were recorded.

¹ http://magic.defra.gov.uk/MagicMap.aspx

- 2.8 In the context of this report, protected or notable conservation priority fauna species were those considered to meet any of the following criteria:
 - Species protected by UK or European legislation;
 - UK Post 2010 UK Biodiversity Framework priority species or Local Biodiversity Action Plan (LBAP) species;
 - Nationally rare or nationally scarce species;
 - Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber Lists).

Limitations and assumptions

- 2.9 The data enquiries and ecological survey will not produce a comprehensive list of plants and animals as this will be limited by factors that influence their presence (e.g. activity and dormancy periods). An assessment can however be made of the habitats within the survey area as to their nature conservation value and potential to support protected or priority species.
- 2.10 Full access could not be gained to the tenanted sections of the site but could be visually assessed through the boundary fences.
- 2.11 No other limitations were encountered during the course of either the desk study or the field surveys and it is considered that with the access gained and recording undertaken an accurate assessment of the Site's ecological value could be made.

3.0 RESULTS

<u>Desk study</u>

Designated sites

- 3.1 One statutory site was found in proximity to the Site: the Severn Estuary. This site has multiple designations (see Table 3).
- 3.2 Three non-statutory designated sites were found within 1km of the Site. These can also be found in Table 3.

Table 3 - summary of designated sites in range of the site

Site name	Designation	Description / key reason for designation	Distance & direction
Severn Estuary	Ramsar; SAC; SPA; SSSI	Designated for habitats: estuaries; mudflats and sandflats; Atlantic salt meadows; sandbanks; reefs; Designated for species: sea lamprey; river lamprey; twaite shad; over wintering Bewick's swan, curlew, dunlin, pintail, redshank and shelduck; and on passage ringed plover. The site also qualifies as a wetland of internation importance due to its assemblage of waterfowl.	680m SE (closest point)
Beach Sidings	SINC	Description not available	680m S
Ocean Park South	SINC	Description not available	802m NE
Cardiff Heliport Fields	SINC	Description not available	951m E

Protected species

3.3 The data search with SEWBReC (search reference 0167-353) returned the following results.

 Table 4 - summary of species records from local record centre biodiversity search

		# of s	cords)	
Pro	tected & priority species	On site	< 500m	> 500m
	Bats	-	-	5+(38)
cies	Great crested newt	-	-	-
Species	Otter	-	1 (1)	1 (1)
	Water vole	-	-	-
	Birds	-	18 (88)	45 (343)
	Fish	-	-	-
SC	Invertebrates	-	-	2 (10)
Groups	Other amphibians (non-EPS)	-	-	-
G	Other mammals (non-EPS)	-	-	-
	Plants	-	-	1 (1)
	Reptiles	-	-	-

Field survey

3.4 The distribution and extent of habitats observed both within and adjacent to the Site is illustrated in the PEA survey plan (see Appendix II). An accompanying species list (including scientific names) can be found in Appendix IV.

- 3.5 The habitats present on Site are described in detail below using the standard Phase 1 survey habitat classification hierarchical alphanumeric reference codes (JNCC, 2010).
- 3.6 The Site was made up of the following habitat types: semi-improved neutral grassland, bare earth, hardstanding, scrub and standing water.

A.2.1 Scrub

3.7 This habitat was found predominantly along the western fenceline boundaries of the tenanted sections of the Site, and around the northern and eastern boundaries of the cadets' centre. It is mainly comprised of bramble and buddleia with some other tall ruderal species along the margins such as mare's tail, hawk weed, hogweed, ragwort, rosebay willowherb, cleavers, tufted vetch, black medick, evening primrose and St John's wort.

B.2.2 Semi-improved neutral grassland

3.8 This habitat extends along the eastern edge and on the northern part of the site. It is predominantly comprised of grasses including bent sp, cocksfoot, meadow foxtail, perennial rye grass and false oat grass, with other species present including poppy, hoary plantain, knapweed, field bindweed, common toadflax, upright hedge parsley, ribwort plantain, dandelion, great willowherb, hoary mustard, wild parsnip, yarrow, bird's foot trefoil, wild carrot, ragwort, prickly lettuce and spear thistle.

J.4 Bare ground

3.9 An area of bare ground was found towards the north of the Site, where there had once been 'The Mission to Seafarers' building and parking area. Whilst the northern part of this section has been colonised by the grass and forb species from the adjacent grassland, the former car park and access area remains largely uncolonised and bare.

J.3.6 Buildings

3.10 There were eleven on-site buildings, including storage containers. These are documented in Table 5 below.

Hardstanding

3.11 The majority of the Site is hardstanding.

Boundaries

3.12 The Site is bisected by fencing – this is mainly chain-link or palisade fencing.

G.1 Standing water

3.13 The water surrounding the Site is classed as standing water and is likely brackish. The docks feed into the Severn Estuary (SAC, SPA, Ramsar and SSSI).

Fauna

3.14 Signs of rabbits (droppings and scrapes) were found within the northern area. Other species noted onsite were magpie, pied wagtail, herring gull, lesser black-backed gull, common carder-bee, meadow brown, gatekeeper, small white, common blue, honeybee and white-tailed bumblebee. A blackbird was also heard calling from within scrub, which subsequently emerged along with a juvenile.

Building	Туре	Potential	Notes
Number		roosting suitability	
1	Flat-roofed portacabin	Negligible	Hole in door, otherwise no access for bats
2	Metal container	Negligible	No visible access points
3	Flat-roofed portacabin	Negligible	No visible access points
4	Metal container	Negligible	No visible access points
5	Flat-roofed portacabin	Negligible	No visible access points
6	Metal container	Negligible	No visible access points
7	Metal container	Negligible	No visible access points
8	Flat-roofed store	Negligible	No visible access points
9	Flat-roofed store	Negligible	No visible access points
10	Flat-roofed portacabin	Negligible	No visible access points
11	Single-storey, flat-roofed	Negligible	No access internally within the building, no visible access
	brick building		points seen externally from gateway and boundaries.
12	Corrugated metal	Negligible	No access internally within the building, no visible access
	warehouse with metal roof		points seen externally from gateway and boundaries, if
			warehouse doors are closed each night.
13	Open-sided, metal roofed	Negligible	Negligible roost features
	store		

Table 5 - Buildings and their relative potential to support bats; numbers refer to those marked on the PEA plan in Appendix I.

4.0 INTERPRETATION AND ASSESSMENT

Ecological impacts of development

- 4.1 The development will result in the loss of some habitats present and disturbance to their associated features. This section concerns the assessment of ecological impacts resulting from the development.
- 4.2 The following interpretation and assessment is provided to ensure full compliance with both legislation and policy as described within this report.

Ecological designations

- 4.3 The Site is not within any statutory ecologically designated protected areas, however it is within 1km of the Severn Estuary SPA, SAC, Ramsar site and SSSI. A Habitats Regulations Assessment may need to be undertaken by the local planning authority to ensure there will be no impacts on this designated site.
- 4.4 There were no other statutory protected sites within 2.0km of the Site and all SINCs within the 1km search buffer are sufficiently separated from the Site that no impacts on their integrity or reasons for designation are likely as a result of the proposed development.

Protected species

Bats

- 4.5 The data search using SEWBReC returned 38 records for bat species in the vicinity of the site. Species included common pipistrelle, soprano pipistrelle, Nathusius pipistrelle, noctule, lesser horseshoe and unidentified bats species.
- 4.6 The nearest bat roost record was for a site 980m away, for unspecified pipistrelle species.
- 4.7 The on-site buildings have negligible features suitable for bat to roost within.
- 4.8 Whilst there is some onsite habitat which will provide bats with an insect foraging resource, this is limited.
- 4.9 All bats and their roosts, irrespective of the number of bats, species, and whether bats are present or not, are fully protected by the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
- 4.10 The proposed development, in the absence of mitigation, is unlikely to impact negatively on bats.

Nesting birds

- 4.11 The data search returned a total of 431 records for 46 species of bird within the search area. Of these, 16 species² (black redstart*, house sparrow, starling, skylark, kingfisher*, kestrel, song thrush, redwing*, spotted flycatcher, scaup*, goldeneye*, Cetti's warbler*, black-headed gull, long-tailed duck*, reed bunting, great northern diver*, dunnock and fieldfare*) were found within 500m of the site. The nearest record for barn owl* was returned for a site 2.6km away.
- 4.12 The on-site scrub and grassland offers potential habitat for nesting birds.
- 4.13 All wild birds, their nests, eggs and dependent young are afforded protection under the Wildlife and Countryside Act 1981 (as amended), with the bird nesting season generally from 1st March until 31st August, and beyond this during good conditions. It should be assumed that birds are nesting within

² Schedule 1 Part 1 birds specified in the Wildlife & Countryside Act 1981 (as amended) denoted by *.

trees during this time, unless proven otherwise. A development cannot take place whilst birds are nesting i.e. until all the young birds have fledged from the nests.

4.14 In the absence of mitigation there may be a negative impact on nesting birds as a result of the proposed development through disturbance and loss of habitat.

Otter

- 4.15 One record of otter was returned within 311m of the site, however this was a dead specimen which could have been washed along the rivers from further upstream. The spraint record from over 1km away indicates that otter are present in the vicinity of the Site.
- 4.16 No evidence of otter was however found on site and the fencing would likely prevent otters entering most of the Site.
- 4.17 In the absence of mitigation there is a small risk of a negative impact on otters using the docks as a result of the proposed development through disturbance and increased lighting.

Reptiles

- 4.18 The data search returned no records for reptiles within the search buffer (2km).
- 4.19 Whilst the grassland and bare ground habitats present do offer some opportunities for common reptiles, the isolation of the Site from the rest of Cardiff means that it is unlikely that reptiles are present onsite.
- 4.20 Reptiles are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile. As a result, reptiles must be removed from areas of development and relocated onto suitable release sites before any site works can commence.
- 4.21 There is likely to be no impact on reptiles as a result of the proposed development.

Invertebrates

- 4.22 The data search returned records of two species of invertebrate using the local area grayling and small blue butterflies.
- 4.23 During the survey, no priority or protected invertebrate species were encountered.
- 4.24 Without mitigation, the development is likely to impact negatively on the local invertebrate populations due to habitat loss.

Other species

4.25 In the absence of mitigation, there will be no negative impacts on other species as a result of the proposed Development (see Table 6).

Table 6 – Impacts on other species as a result of the proposed development.

Species	Records from SEWBReC	On-site signs	Notes	Impacts in absence of mitigation
Great crested newt and other amphibians	None	None	No on-site or nearby standing water suitable for this species.	None
Marsh fritillary butterfly	None	None	Larval foodplant (devil's bit scabious) not in evidence.	None
Water vole	None	None	No on-site signs, with unsuitable bank vegetation and structure.	None
Plants	1	None	No wood bitter-vetch found onsite	None

5.0 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 Wildwood Ecology Ltd was commissioned to undertake a preliminary ecological appraisal (PEA) at a site off Tyneside Road, Cardiff Bay to inform a planning application for a new built development for HMS Cambria.
- 5.2 There are no statutory or non-statutory designations on the site itself, although the Severn Estuary SAC, SPA, Ramsar and SSSI protected area is found within 1km of the development site.
- 5.3 The three locally designated SINCs found within 1km of the Site are all sufficiently well separated from the site that no direct or indirect impacts on their designated features are anticipated as a result of the development.
- 5.4 Habitats surveyed included semi-improved neutral grassland, scrub, bare ground, buildings and hardstanding. The onsite buildings provide negligible potential for roosting bats.
- 5.5 Recommendations are provided below with regard to the nearby habitats, bats, nesting birds, reptiles, otter and invertebrates.
- 5.6 This ecological report will remain valid for a period of 2-years from the date of the last survey i.e. until end August 2018. Further surveys may be required to update the site information if planning is not obtained or works do not commence within that time period.

Recommendations

Standing water

- 5.7 No construction materials (including silt, chemicals, and fuel) must be allowed to enter the docks, with a silt barrier installed along the northern and eastern boundaries of the Site to minimise this. This barrier must be maintained for the duration of construction works.
- 5.8 The local planning authority may wish to consider undertaking a Habitats Regulations Assessment (HRA) due the proximity of the Site to the Severn Estuary. With the mitigation measures recommended, it is likely however, that there will be negligible impacts upon its designated features.

Bats

- 5.9 The potential impacts of lighting during and post-development on bats must be considered. The lighting of all areas of the Site both during and post-development must be designed to avoid any impacts on bats that are foraging across the site or commuting around the bay.
- 5.10 Whilst there is likely to be a requirement for highway type lighting across the Site, there must be no lighting of any enhancement roost features.
- 5.11 In the unlikely event of any bats being found within any of the onsite buildings before or during works, works must immediately cease and advice sought from a suitably qualified ecologist or Natural Resources Wales (NRW). An application for a European Protected Species licence will then need to be made to NRW in order for the renovation/demolition of the building(s) to be legally carried out.

Birds

5.12 The on-site scrub and grassland offer potential habitat for nesting birds. Vegetation clearance must only take place outside of the bird breeding season (i.e. within the period September to February inclusive) unless a survey completed by a suitably qualified ecologist has confirmed that nesting birds are absent from the site.

Otter

- 5.13 There must be no lighting of the water to prevent disturbing otter, and no working at night during construction.
- 5.14 If any trenches are left exposed overnight during the course of the works, there must be a means of escape for animals. This will comprise a shallow sloped edge or board (of at least 30cm width) set at an angle of no more than 30°.

Enhancement

- 5.15 Native species of high value to pollinators and wildlife should be used for landscaping purposes, with for example, wildflower turf (or seeding with Emorsgate EL1 flowering lawn mixture³, which responds well to regular short mowing), fruit trees and honeysuckle, in line with the Pollinator Action Plan for Wales.
- 5.16 Foodplants for grayling and small blue butterflies should be included within the seed mix these are kidney vetch and bristle bent. Other species of benefit to butterflies found on site would be bird's foot trefoil, bent species, cocksfoot and black medick.
- 5.17 Areas of scrub should be encouraged, to provide nesting areas for some species of bird.
- 5.18 Bird and bat boxes should be included in the construction of the building. Integrated boxes such as the Schwegler 2FR integrated bat tube and Schwegler Brick Nest Boxes Types 25A or 26.

³ http://wildseed.co.uk/mixtures/view/56

6.0 **REFERENCES**

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APPENDIX I: SITE PLAN



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G.1 Standing water

H++ Fence

APPENDIX II: DEVELOPMENT PLAN



APPENDIX III: SURVEY IMAGES



Site



Figure 2 - View looking northwards along eastern edge of Figure 3 - Looking north-eastwards from the eastern boundary of the Site across the Roath Dock



Figure 4 - Typical metal palisade fencing around the Site



Figure 5 - Buildings numbers 9 and 10



Figure 6 - View looking south-west across the grassland Figure 7 - Buildings 6 and 7 area at the north of the Site





Figure 8 - View northwards along the road



Figure 9 - View towards tenanted compound at the southern end of the Site



Figure 10 - View into southernmost compound

APPENDIX IV: SPECIES LIST

To be submitted to the appropriate Local Records Centre

Site Name:	HMS Cambria, Cardiff Bay	Provided by:	Wildwood Ecology
Grid ref:	ST 19927 74566	Verified by:	Alex Pollard

Common name	Scientific Name (if known)	Number	Comment
Bramble	Rubus fruticosus agg.		
Butterfly bush	Buddleja davidii		
Mare's tail	Hippuris vulgaris		
hawk weed	Hieracium sp		
Ragwort	Senecio jacobaea		
Rosebay willowherb	Chamerion angustifolium		
Cleavers	Galium aparine		
Tufted vetch	Vicia cracca		
Black medick	Medicago lupulina		
Common evening-primrose	Oenothera biennis		
St John's wort	Hypericum sp		
Bent	Agrostis sp		
Cocksfoot	Dactylis glomerata		
Meadow foxtail	Alopecurus pratensis		
Perennial rye grass	Lolium perenne		
False oat grass	Arrhenatherum elatius		
Common poppy	Papaver rhoeas		
Hoary plantain	Plantago media		
Ribwort plantain	Plantago lanceolata		
Common knapweed	Centaurea nigra		
Field bindweed	Convolvulus arvensis		
Common toadflax	Linaria vulgaris		
Upright hedge-parsley	Torilis japonica		
Dandelion	Taraxacum officinale agg.		
Great willowherb	Epilobium hirsutum		
Hoary mustard	Hirschfeldia incana		
Wild parsnip	Pastinaca sativa		
Yarrow	Achillea millefolium		
Bird's-foot trefoil	Lotus corniculatus		
Carrot	Daucus carota		
Prickly lettuce	Lactuca serriola		
Spear thistle	Cirsium vulgare		
Rabbit	Oryctolagus cuniculus		
Magpie	Pica pica		
Pied wagtail	Motacilla alba		
Herring gull	Larus argentatus		
Lesser black-backed gull	Larus fuscus		
Common carderbee	Bombus pascuorum		
Meadow brown butterfly	Maniola jurtina		
Gatekeeper	Pyronia tithonus		
Small white	Pieris rapae		
Common blue	Polyommatus icarus		
Honeybee	Apis mellifera		
White-tailed bumblebee	Bombus lucorum,		
Blackbird	Turdus merula		

APPENDIX V: PLANNING POLICY AND LEGISLATION

The following local and national planning policy and both primary and European legislation relating to nature conservation and biodiversity status are considered of relevance to the current proposal.

Planning and biodiversity

Local Authorities have a requirement to consider biodiversity and geological conservation issues when determining planning applications under the following planning policies.

Planning Policy Wales (2016) and Technical Advice Note 5 (2009)

Planning Policy Wales (Edition 8, January 2016) sets out the land use planning policies of the Welsh Government, with Chapter 5 dealing with Conserving and Improving Natural Heritage and the Coast. The advice contained within Planning Policy Wales (PPW) is supplemented for some subjects by Technical Advice Notes (TAN's).

TAN 5 (Welsh Government, 2009) specifically provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on the key principles of positive planning for nature conservation; nature conservation and Local Development Plans; nature conservation in development management procedures; development affecting protected internationally and nationally designated sites and habitats; and development affecting protected and priority habitats and species.

Under Section 2.4 within the TAN 5, 'when deciding planning applications that may affect nature conservation local planning authorities should':

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
- Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;
- Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by
 mitigation measures, offset residual harm by compensation measures and look for new
 opportunities to enhance nature conservation; where there may be significant harmful effects local
 planning authorities will need to be satisfied that any reasonable alternative sites that would result
 in less or no harm have been fully considered;

Legislation and biodiversity

Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in the Conservation of Habitats and Species Regulations 2010 (as amended). These two main pieces of legislation have been consulted when writing this report and are therefore described in detail within this section.

Other relevant legislation and policy documents that have been consulted include - The Countryside and Rights of Way Act 2000; Natural Environment and Rural Communities Act 2006; The Hedgerow Regulations 1997; Biodiversity Action Plans, both UK-wide (UKBAP) and Local plans (LBAPs), and The National Planning Policy Framework (NPPF).

There is also legislation that legally protects certain animals - for example, the Protection of Badgers Act (1992) protects badgers and their setts, and the Deer Act (1991) places restrictions on actions that can be taken against deer species.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife & Countryside Act 1981 (as amended) [WCA] is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act deals with the protection of wildlife.

Most European Protected Species offences are now covered under the Conservation of Habitats and Species Regulations (see below), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

The WCA prohibits the release to the wild of non-native animal species listed on Schedule 9 (e.g. Signal Crayfish and American Mink). It also prohibits planting in the wild of plants listed in Schedule 9 (e.g. Japanese Knotweed and Rhododendron ponticum) or otherwise deliberately causing them to grow in the wild. This is to prevent the release of invasive non-native species that could threaten our native wildlife.

The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.

There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonable avoided, or actions within the living areas of a dwelling house.

Licensing: certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence – e.g. bat surveys.

Conservation of Habitats and Species Regulations 2010 (as amended)

The Conservation of Habitats and Species Regulations 2010 (as amended) (which are the principal means by which the EC Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994.

These regulations provide for the:

- protection of European Protected Species [EPS] (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) including bats, dormice, great crested newts, and otters;
- designation and protection of domestic and European Sites e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]; and
- adaptation of planning controls for the protection of such sites and species.

Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function – i.e. when determining a planning application.

There is no defence that an act was the incidental and unavoidable result of a lawful activity.

Licensing: it is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

Species protection

The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

Bats

All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2010 (as amended), making it an offence inter alia to:

- Deliberately kill, injure or capture a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place of a bat.

In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which any bat uses for shelter or protection; or
- Disturb any bat while occupying a structure or place which it uses for that purpose.

If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard bats.

Birds

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2010 (as amended). All wild birds, their nests and eggs are protected it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any such bird whilst it is in use or being built; or
- take or destroying an egg of any such wild bird.

The law covers all species of wild birds including common, pest or opportunistic species.

Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

Otters

The European Otter, *Lutra lutra* is an European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2010 (as amended), making it an offence inter alia to:

- deliberately capture, injure or kill any wild otter;
- deliberately disturb wild otters;
- damage or destroy a breeding site or resting place of an otter.

In addition, the otter is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- disturbs an otter while it is occupying a structure or place which it uses for shelter or protection; or
- obstructs access to such a place.

If proposed development work is likely to destroy or disturb otters or their resting places, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard otters.

Reptiles

Adders, slow worms, grass snakes and common lizards are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile. As a result, reptiles must be removed from areas of development and relocated onto suitable release sites before any site works can commence.

Smooth snakes and sand lizards are European Protected Species under 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). This makes it illegal to carry out the following activities:

- Deliberately or recklessly disturb, capture or kill these animals;
- Deliberately or recklessly take or destroy eggs of these animals;
- Damage or destroy a breeding site or resting place of such a wild animal; or
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from such a wild animal.